

# TECHNICAL CATALOGUE



## MID-HEAVY DUTY GEARBOXES

STANDARD **IEC**



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Motovario® corporate philosophy aims to promote the company's brand and products at an international level with determination and transparency, while constantly striving to offer innovative solutions for satisfying and anticipating the demand of the market. Motovario® provides technologically advanced solutions in the transmission components field for industrial and civil applications worldwide.

### The company

At Formigine, the heart of Modena's industrial district, Motovario® boasts a production plant spanning 50,000 m<sup>2</sup> that employs 500 people.

1965 Foundation of Motovario

1998 Acquisition of Spaggiari Trasmissioni, an important brand in the mechanical technology sector.

2006 Motovario acquisition by a private investment fund managed by Synergo SGR, in order to guarantee its development and support its expansion throughout the world.

2014 Acquisition of Pujol.

2015 Acquisition by TECO.

At the core of Motovario® lies an evolved production process based on technological solutions that convert power into movement. Motovario® is at the heart of the production processes that drive industries worldwide. Quality and reliability are the company's fundamental assets. Motovario® is present throughout the world with branches in France, Spain, Germany, England, China, the United States and India. The sales network and customer service guarantee immediate and high-quality support to all customers. In addition, the company boasts a worldwide network of MAC (Motovario Assembly Centre). Qualified assembly centres are present, in Italy, Australia, Benelux, Bulgaria, China, Finland, France, India, Ireland, Israel, Malaysia, Poland, Portugal, South Korea, Spain, Sweden, Turkey, United Kingdom, Ukraine and USA. The company is able to offer a wide range of products: speed variators, right-angle, helical-bevel, shaft-mounted, worm gear reducers and gearmotors, electric motors, inverter and inverter drives. Maximum quality and precision are ensured by the cutting-edge technologies implemented in the production process. 170 numerical control machines, served by LGV lines for storage in automatic warehouses, ensure a high standard of efficiency for the Motovario® production department.

The highly automated assembly lines are supported by a specific computerised system. The process statistical control system manages the production process to avoid rejects, by enabling the operator to monitor all the processing phases. The annealing, tempering, hardening and carburizing treatments are carried out inside the plant. The plant operates on a 24-hour basis, including holidays. Reliability, resilience and versatility are the distinctive features of Motovario® products, the most qualified solution to any power transmission requirement.

### Main fields OF APPLICATIONS

- Mechanical-electromechanical industry (car washing, pumps, barriers & automatic doors, circuit breakers)
- Ceramic industry (ovens, press feeding systems)
- Food, farming, oenology industry
- Wood, marble, glass industry
- Packaging & bottling industry
- Textile, shoes, leather industry
- Transport, logistic industry
- Construction industry
- Milling, animal husbandry, flower industry
- Machine tools & steel industry
- Mining, quarry, cement industry
- Energy industry (solar, nuclear, biomass, wind)
- Amusement industry (theatres, leisure parks, kiddy rides)
- Chemical & pharmaceuticals industry
- Paper & printing industry
- Plastic & rubber industry
- Telecommunications industry (satellite orientation systems, military radar)
- Engineering and consultant companies

### Certifications

Our products can be manufactured to conform with the ATEX Directive 2014/34/UE. In addition, the safety and quality of our motors, geared motors and motovariators is guaranteed by the EAC (EurAsian Conformity) certification, an essential requirement for products exported to the Russian Federation. Our motors are UL certified, which guarantees their safety and quality requirements for the North American market.

### Quality CONCEPT

Motovario® has obtained the quality certification renewal of its production system in conformity to the UNI EN ISO 9001:2008 standard. This internationally recognised certification acknowledges the company's commitment and drive geared towards constantly improving products, projects and services offered. Moreover, the company has obtained the OHSAS 18001:1999 (Occupational Health and Safety Assessment Series) certification, which defines the requirements of the workplace safety and health management system.

### Research & DEVELOPMENT

Technological innovation: a crucial factor for competing in the market. In the company's 50-year history, research and change have been the pivotal factors in guaranteeing competitiveness at a global level, thanks to increasingly advanced products in terms of performance and reliability. Each year the company invests an increasing amount of its turnover in research and development, geared towards promoting the constant study and analysis of products, control processes and performance certification. In order to ensure that customers receive products that comply with the requested performance levels, the company carries out simulations on all new products, including NVH (Noise, Vibration, Harshness) tests effected in the advanced semi-anechoic chamber.

### Customer CARE

Innovative instruments and software applications supporting the technical and logistic requirements of our partners worldwide guarantee a timely and customised service. The experience acquired by Motovario® has led to the creation of the new online portal MyMotovario 4.0, which allows for selecting products and exporting their 3D file. As a result, designers and engineering departments can download the three-dimensional model of the requested product and implement it directly in their own layout. In order to maximise customer service and quality, Motovario® offers all its customers the following online services: Order Tracking, which allows for monitoring the progress of an order in real time, and the Stock Availability service, through which users may check the availability (stock) of our products, both in the Italian plant and in the various branches.

### Motovario chooses technological evolution.

Motovario® has chosen technological evolution and actively collaborates with the Faculty of Engineering of the University of Modena and Reggio Emilia and of the University of Bologna.

**Reliability, sturdiness, versatility**

These are the distinctive traits of Motovario products. A broad range of transmission products that provide a competent, innovative solution to each and every power application need. Cutting-edge tools, unrelenting research efforts and ongoing commitment to upgrading manufacturing equipment to the latest state-of-the-art enable us to offer high quality and performance standards to cater to industry requirements and the broadest variety of applications. Motovario ranks among the leading, well-reputed companies in Italy engaged in the design, manufacture and sales of transmission products for industrial and civil applications. The entire manufacturing process takes place in Formigine and Ubersetto plants, in Modena area, with an overall surface area of over 50.000 sq m. and a workforce of about 500 people. 170 numerically controlled machines and cutting-edge handling, storage and assembly automated systems ensure that all products meet high quality standards. The network includes more than 40 Motovario-certified assembly centres, with the capability to supply products in a broad range of versions, including customised versions, high service capacity and fast response. As a result, our product offering can cater to the needs of all plant engineering sectors, in all industries and for different applications, and includes: speed variators, helical, bevel-helical, parallel helical, worm gear reducers and gearmotors, electric motors and motor-inverters. All of the products we manufacture share such common features as reliability, sturdiness and versatility, topped with a high innovation content. At the heart of a company's technological innovation is the ability to develop integrated tools for computer-aided calculation simulation and management of different processes as part of product development. When simulating operating, setup and process conditions, it is also necessary to analyse and optimize the overall functional design of a product using a synergistic approach. This is achieved by implementing an exhaustive experimental plan, without using interpolation or approximation, as they frequently allow criticalities or any oversizing which is not conducive to maximising quality/cost ratio to go unnoticed.

**High-efficiency method for calculation according to standards**

A set of specific functions have been developed to this end. A few significant examples include functions to:

- Optimise individual reduction ratios and the combinations of the different reduction stages based on parametrisable target normal series;
- Calculate torque values and maximum permissible external forces for gear reducer units, using iterative numeric algorithms to confirm target life/safety values of components;
- Create databases for loading a FEM structural analysis model by automatically writing all reaction components of bearings under all load conditions to a specific file, with automatic selection of critical cases that need to be verified.

Another goal of the method is to create synergy between calculation according to standards and FEM structural calculation and the implementation of FEM model loading procedures, so as to simplify input data, meshing and constraint criteria

**Competitiveness and operational benefits of the new method**

This method offers many practical advantages over traditional calculation procedures within the company, namely:

- Iterative optimisation of project since setup stage;
- Accurate assessment of the various service factors and reliability levels for the entire gear reducer unit and for all operating conditions as per catalogue rating or customer specific requirements;
- Faster support to customers in analysing tailored product configurations;
- Integrated corporate databases that can be updated in real-time;

**Range extension and ongoing evolution**

The steady, significant growth of Motovario Group is achieved thanks to an ongoing search for new calculation and design tools, as well as to customer service. The new tools identified have led to innovation, improved product reliability as well as positive developments in market management. The following software products are used for design, calculation and management:

- Solidworks;
- Kissoft;
- Kissys;
- Ansys;
- FEM modelling analysis software;
- Circuit design and simulation software;
- Specific spreadsheets;
- SAP.

In MyMotovario 4.0 portal, PRODUCT SELECTION includes a section named APPLICATIONS where customers can enter application data and find out which gear reducer suits them best in a matter of minutes.

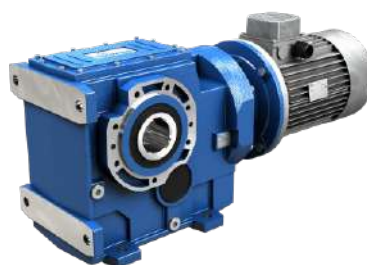
## MOTOVARIO Products

**HELICAL GEAR REDUCERS**

Cast iron or aluminum casing  
 Output shaft up to 90 mm  
 $Mn_2$  up to 8.600 Nm  
 Reduction stages 1, 2, 3  
 Ratios up to 354  
 Atex units

**HELICAL BEVEL GEAR REDUCERS**

Cast iron or aluminum casing  
 Output shaft up to 110 mm  
 $Mn_2$  up to 14.000 Nm  
 Reduction stages 2, 3  
 Ratios up to 443  
 Atex units

**SHAFT MOUNTED GEAR REDUCERS**

Cast iron  
 Output shaft up to 90 mm  
 $Mn_2$  up to 10.250 Nm  
 Reduction stages 2, 3  
 Ratios up to 395  
 Atex units

**WORM GEAR REDUCERS**

Cast iron or aluminum casing  
 Output shaft up to 50 mm  
 $Mn_2$  up to 2.700 Nm  
 Ratios up to 1083  
 Atex units



|                                                                                                                                                                                                                                         |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p><b>PARALLEL HELICAL AND BEVEL HELICAL GEAR REDUCERS FOR MIDDLE HEAVY INDUSTRY</b></p> <p>Cast iron casing<br/>Output shaft up to 220 mm<br/>Mn<sub>2</sub> up to 110.000 Nm<br/>Reduction stages 1, 2, 3, 4<br/>Ratios up to 636</p> |   |
| <p><b>MOTOVARIATORS AND MOTOVARIATOR-GEAR REDUCERS</b></p> <p>Cast iron or aluminum casing<br/>Ratios infinite<br/>Mn<sub>2</sub> up to 5.000 Nm<br/>Atex units</p>                                                                     |  |

|                                                                                                                                                                                                                                                                     |                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <p><b>ELECTRIC MOTORS</b></p> <p>Power ratings up to 90 kW<br/>Poles 2, 4, 6<br/>Three-phase and single-phase, built-in brake, dual polarity<br/>Protection class up to IP66</p>                                                                                    |  |
| <p><b>DRIVES</b></p> <p><b>DRIVON - motoinverter</b></p> <p>Three phase and single phase power supply<br/>High dynamics sensorless vectorial control<br/>Power ratings up to 5,5 kW<br/>Standard integrated STO<br/>Integrated field bus<br/>Optional field bus</p> |  |

**MAIN FEATURES OF THE PBZ-PBH-PBC SERIES**

The gear reducers of the PBH-PBZ-PBC series are built according to the best design techniques and offer:

- Sturdiness and reliability;
- Low vibration and low noise;
- High torque ratings;
- High efficiency;
- Universal mounting: suitable for horizontal or vertical mounting;
- Broad customization with extensive range of catalogue options;
- Rigid cast-iron casing with large lubricant capacity for enhanced heat capacity;
- Split casing for low maintenance, or monobloc;
- Output shaft: solid (as standard), hollow, hollow with shrink disc, splined (hollow or solid), double-ended solid;
- Also available with double-ended input shaft;
- IEC-normalised motor adapter, also available with NEMA adapter;
- High overhung ratings both at input and output shaft ends;
- Reliable, proven high performance;
- Accurately ground helical spur gears;
- Ground or accurately run-in Gleason bevel gear.

**EFFICIENCY  $\eta$  Table**

| PARALLEL HELICAL |             |             |             |
|------------------|-------------|-------------|-------------|
| PIH-PI C         | P2Z-P2H-P2C | P3Z-P3H-P3C | P4Z-P4H-P4C |
| 0,98             | 0,96        | 0,94        | 0,92        |

| BEVEL-HELICAL |             |             |
|---------------|-------------|-------------|
| B2H-B2C       | B3Z-B3H-B3C | B4Z-B4H-B4C |
| 0,95          | 0,93        | 0,91        |

**FRAME SIZES AND GEARING OF THE PBZ SERIES**

- Available frame sizes: 179, 199, 219, 249, 269, 279, 319, 349, 399, 409;
- Gearing: 2, 3 and 4 stages for parallel helical gear reducers; 3 and 4 stages for bevel-helical gear reducers.

**FRAME SIZES AND GEARING OF THE PBH SERIES**

- Available frame sizes: 180, 200, 225, 250, 280, 355;
- Gearing: 1, 2, 3 and 4 stages for parallel helical gear reducers; 2, 3 and 4 stages for bevel-helical gear reducers.

**FRAME SIZES AND GEARING OF THE PBC SERIES**

- Available frame sizes: 176, 196, 216, 246, 266, 276, 316, 346, 396, 406;
- Gearing: 1, 2, 3 and 4 stages for parallel helical gear reducers; 2, 3 and 4 stages for bevel-helical gear reducers.

**MATERIALS (CASING / GEARS AND SHAFTS) OF THE PBZ SERIES**

- Casing: EN-GJS400-15 UNI EN 1563 spheroidal cast-iron;
- Gears: hardened and case-hardened 21NiCrMo2 steel;
- Solid output shaft: hardened and tempered 42CrMo2 or C45 steel;
- Hollow output shaft: hardened and tempered 42CrMo2 or C45 steel.

**MATERIALS (CASING / GEARS AND SHAFTS) OF THE PBH AND PBC SERIES**

- Casing: GJL200 UNI EN 1561 cast-iron;
- Gears: hardened and case-hardened 17CrNiMo6-4, 25CrMo4 and 20MnCr5 steel;
- Solid output shaft: hardened and tempered 42CrMo4 steel;
- Hollow output shaft: hardened and tempered 20MnV6 steel.

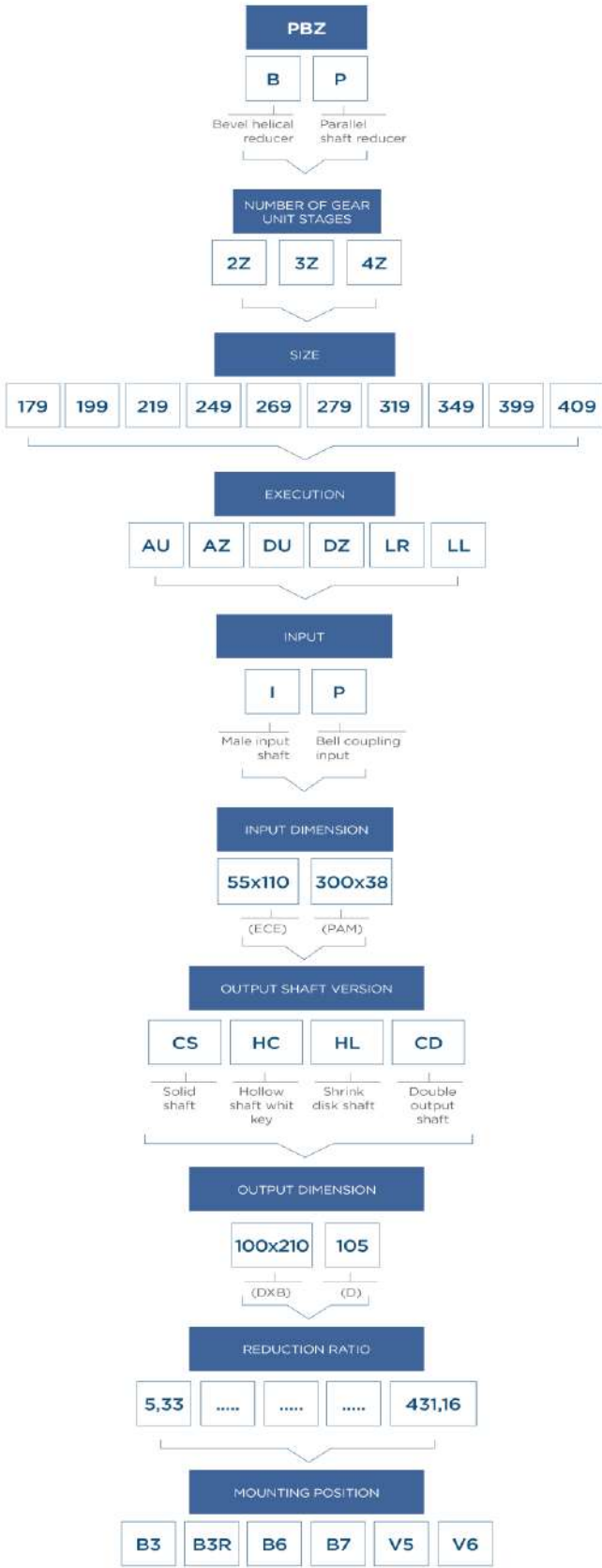
**PAINT COATING OF THE PBH AND PBC SERIES**

- Outer protection with two-component water-based paint, minimum coat thickness 80 microns. RAL 5010 blue textured finish.

**PAINT COATING OF THE PBZ SERIES**

- Outer protection with acrylic paint, minimum coat thickness 120  $\mu\text{m}$ . C2 corrosive class according to UNI EN ISO 12944;  
RAL 5010 blue textured finish.

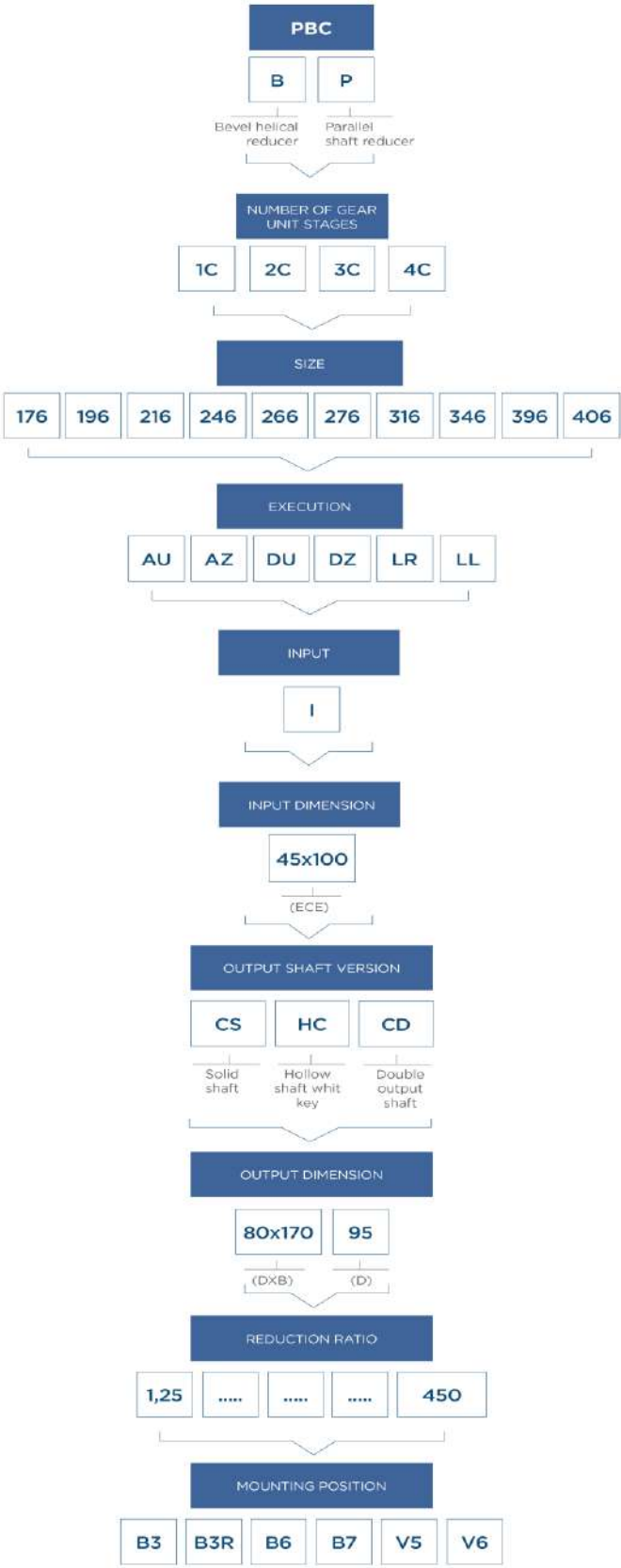
2.2.1 Designation



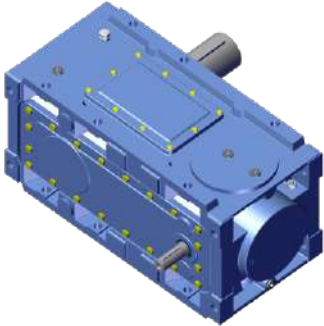
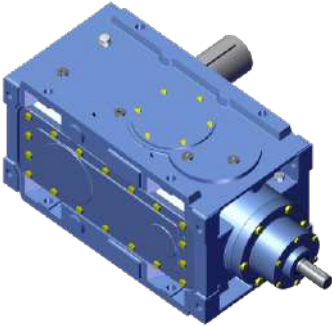
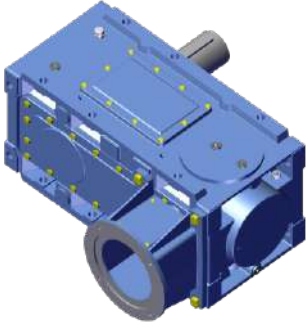
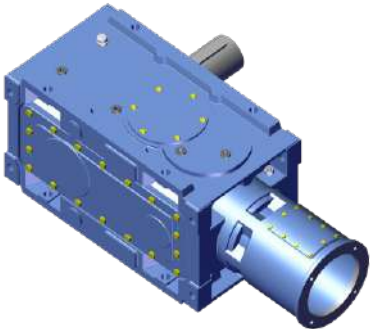
2.2 TYPOLOGY



2.2 TYPOLOGY

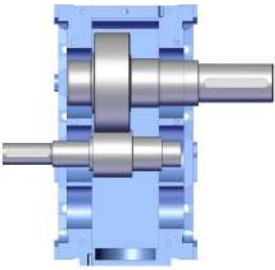
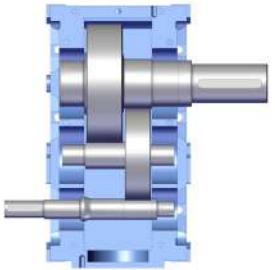
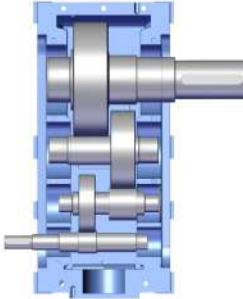
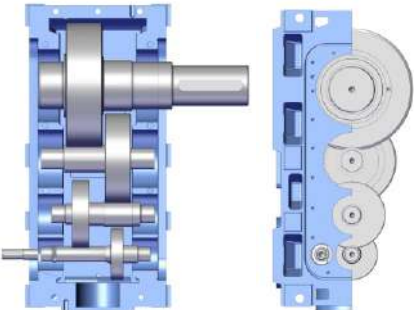


2.2.2 Versions

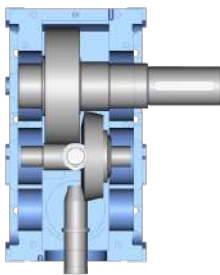
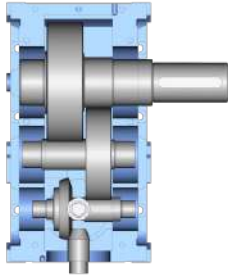
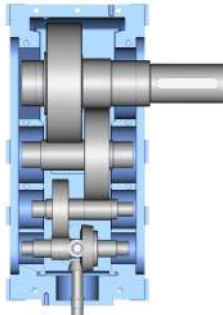
|                                             | Parallel Helical gear reducers                                                     | Bevel Helical gear reducers                                                          |
|---------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Solid-shaft input<br>PBZ-PBH-PBC            |   |   |
| Bell-housing input with coupling<br>PBZ-PBH |  |  |

2.2.3 Gear train

Parallel helical gear reducers

|                                                                                                       |                                                                                                        |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <p>P1H-P1C</p>       | <p>P2Z-P2H-P2C</p>  |
| <p>P3Z-P3H-P3C</p>  | <p>P4Z-P4H-P4C</p>  |

Bevel helical gear reducers

|                                                                                                    |                                                                                                          |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <p>B2H-B2C</p>  | <p>B3Z-B3H-B3C</p>  |
| <p>B4Z</p>      | <p>B4H-B4C</p>      |

## 2.2 TYPOLOGY

### 2.2.4 Available motor mounting flanges

The tables show available coupling configurations and the matching motors.

To determine the compatibility of a geared unit in terms of mechanical factors, double check the selected configuration against the rating charts performance.

To check the availability of the motor coupling dimensions based on sizes, gears and ratios, refer to the paragraph of the dimensional tables.

For brake motors with frame sizes greater than IEC 180, please contact MOTOVARIO TECHNICAL SERVICE.

| PZ  | MOT. IEC |     |     |     |     |     |     |     |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|
|     | 132      | 160 | 180 | 200 | 225 | 250 | 280 | 315 |
| 179 | -        | -   | P2Z | P2Z | P2Z | P2Z | -   | -   |
|     | P3Z      | P3Z | P3Z | P3Z | P3Z | P3Z |     |     |
| 199 | -        | -   | P2Z | P2Z | P2Z | P2Z | -   |     |
|     | P3Z      | P3Z | P3Z | P3Z | P3Z | P3Z |     |     |
| 219 | -        | -   | -   | -   | P2Z | P2Z | P2Z | P2Z |
|     | -        | P3Z | P3Z | P3Z | P3Z | P3Z | -   | -   |
|     | P4Z      | P4Z | P4Z | -   | -   | -   | -   | -   |
| 249 | -        | -   | -   | -   | P2Z | P2Z | P2Z | P2Z |
|     | -        | P3Z | P3Z | P3Z | P3Z | P3Z | -   | -   |
|     | P4Z      | P4Z | P4Z | -   | -   | -   | -   | -   |
| 269 | -        | -   | -   | -   | -   | -   | P2Z | P2Z |
|     | -        | -   | P3Z | P3Z | P3Z | P3Z | P3Z | P3Z |
|     | P4Z      | P4Z | P4Z | P4Z | P4Z | -   | -   | -   |
| 279 | -        | -   | -   | -   | -   | -   | P2Z | P2Z |
|     | -        | -   | P3Z | P3Z | P3Z | P3Z | P3Z | P3Z |
|     | P4Z      | P4Z | P4Z | P4Z | P4Z | -   | -   | -   |
| 319 | -        | -   | -   | -   | -   | -   | -   | P2Z |
|     |          | -   | -   | -   | P3Z | P3Z | P3Z | P3Z |
|     |          | P4Z | P4Z | P4Z | P4Z | P4Z | -   |     |
| 349 | -        | -   | -   | -   | -   | -   | -   | P2Z |
|     |          | -   | -   | -   | P3Z | P3Z | P3Z | P3Z |
|     |          | P4Z | P4Z | P4Z | P4Z | P4Z | -   | -   |

| BZ  | MOT. IEC |     |     |     |     |     |     |     |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|
|     | 132      | 160 | 180 | 200 | 225 | 250 | 280 | 315 |
| 179 | B3Z      | B3Z | B3Z | B3Z | B3Z | B3Z | -   | -   |
| 199 | B3Z      | B3Z | B3Z | B3Z | B3Z | B3Z | -   | -   |
| 219 | -        | B3Z | B3Z | B3Z | B3Z | B3Z | -   | -   |
|     | B4Z      | B4Z | B4Z | -   | -   | -   |     |     |
| 249 | -        | B3Z | B3Z | B3Z | B3Z | B3Z | -   | -   |
|     | B4Z      | B4Z | B4Z | -   | -   | -   |     |     |
| 269 | -        | -   | B3Z | B3Z | B3Z | B3Z | B3Z | B3Z |
|     | B4Z      | B4Z | B4Z | B4Z | B4Z | -   | -   | -   |
| 279 | -        | -   | B3Z | B3Z | B3Z | B3Z | B3Z | B3Z |
|     | B4Z      | B4Z | B4Z | B4Z | B4Z | -   | -   | -   |
| 319 | -        | -   | -   | -   | B3Z | B3Z | B3Z | B3Z |
|     |          | B4Z | B4Z | B4Z | B4Z | B4Z | -   | -   |
| 349 | -        | -   | -   | -   | B3Z | B3Z | B3Z | B3Z |
|     |          | B4Z | B4Z | B4Z | B4Z | B4Z | -   | -   |

## 2.2 TYPOLOGY

| PH  | MOT. IEC |     |     |     |     |     |         |     |
|-----|----------|-----|-----|-----|-----|-----|---------|-----|
|     | 100-112  | 132 | 160 | 180 | 200 | 225 | 250-280 | 315 |
| 180 | P3H      | P3H | P3H | P2H | P2H | P2H | P2H     | -   |
|     | P4H      | P4H |     | P3H | P3H |     |         |     |
| 200 | P4H      | P3H | P3H | P3H | P2H | P2H | P2H     | -   |
|     |          | P4H | P4H | P4H | P3H | P3H |         |     |
| 225 | -        | P4H | P3H | P3H | P3H | P2H | P2H     | -   |
|     |          |     | P4H | P4H |     | P3H | P3H     |     |
| 250 | -        | P4H | P3H | P3H | P3H | P3H | P2H     | P2H |
|     |          |     | P4H | P4H | P4H |     | P3H     |     |
| 280 | -        | P4H | P3H | P3H | P3H | P3H | P2H     | P2H |
|     |          |     | P4H | P4H | P4H | P4H | P3H     | P3H |
| 355 | -        | -   | P4H | P4H | P4H | P3H | P3H     | P2H |
|     |          |     |     |     |     | P4H | P4H     | P3H |

| BH  | MOT. IEC |     |     |     |     |     |         |     |
|-----|----------|-----|-----|-----|-----|-----|---------|-----|
|     | 100-112  | 132 | 160 | 180 | 200 | 225 | 250-280 | 315 |
| 180 | B3H      | B3H | B2H | B2H | B2H | B2H | B2H     | -   |
|     | B4H      | B4H | B3H | B3H | B3H |     |         |     |
| 200 | B4H      | B3H | B3H | B3H | B2H | B2H | B2H     | B2H |
|     |          | B4H | B4H | B4H | B3H | B3H |         |     |
| 225 | B4H      | B4H | B3H | B3H | B2H | B2H | B2H     | B2H |
|     |          |     | B4H | B4H | B3H | B3H | B3H     |     |
| 250 | -        | B4H | B3H | B3H | B3H | B2H | B2H     | B2H |
|     |          |     | B4H | B4H | B4H | B3H | B3H     |     |
| 280 | -        | B4H | B3H | B3H | B3H | B3H | B2H     | B2H |
|     |          |     | B4H | B4H | B4H | B4H | B3H     | B3H |
| 355 | -        | -   | B4H | B4H | B4H | B3H | B3H     | B2H |
|     |          |     |     |     |     | B4H | B4H     | B3H |

## 2.2 TYPOLOGY

### 2.2.5 Range

The values shown have been calculated at 1400 rpm.

| PZ  | Mn <sub>2</sub> [Nm] | i   |     |
|-----|----------------------|-----|-----|
|     | Max                  | Min | Max |
| 179 | 9000                 | 6   | 86  |
| 199 | 11000                | 8   | 107 |
| 219 | 19000                | 6   | 318 |
| 249 | 24000                | 8   | 403 |
| 269 | 29000                | 6   | 339 |
| 279 | 36000                | 8   | 419 |
| 319 | 55000                | 6   | 314 |
| 349 | 70000                | 8   | 404 |
| 399 | 90000                | 6   | 319 |
| 409 | 110000               | 8   | 386 |

| BZ  | Mn <sub>2</sub> [Nm] | i   |     |
|-----|----------------------|-----|-----|
|     | Max                  | Min | Max |
| 179 | 9000                 | 13  | 69  |
| 199 | 11000                | 16  | 86  |
| 219 | 19000                | 12  | 323 |
| 249 | 24000                | 15  | 410 |
| 269 | 29000                | 12  | 348 |
| 279 | 36000                | 15  | 431 |
| 319 | 55000                | 12  | 320 |
| 349 | 70000                | 16  | 412 |
| 399 | 90000                | 12  | 327 |
| 409 | 110000               | 15  | 395 |

## 2.2 TYPOLOGY

| PH  | Mn <sub>2</sub> [Nm] | i    |        |
|-----|----------------------|------|--------|
|     | Max                  | Min  | Max    |
| 180 | 13000                | 2,04 | 604,77 |
| 200 | 18300                | 1,95 | 600,10 |
| 225 | 28000                | 1,96 | 627,06 |
| 250 | 35200                | 2,04 | 635,69 |
| 280 | 49500                | 1,96 | 625,43 |
| 355 | 91300                | 1,95 | 626,60 |

| BH  | Mn <sub>2</sub> [Nm] | i    |        |
|-----|----------------------|------|--------|
|     | Max                  | Min  | Max    |
| 180 | 13000                | 5,27 | 592,67 |
| 200 | 18200                | 5,44 | 632,08 |
| 225 | 27900                | 5,41 | 634,03 |
| 250 | 35200                | 5,44 | 632,71 |
| 280 | 46500                | 5,41 | 622,50 |
| 355 | 80000                | 5,52 | 604,00 |

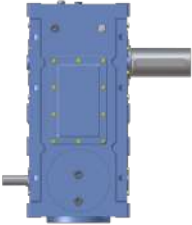
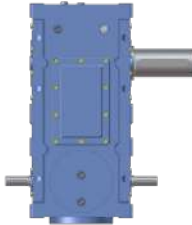
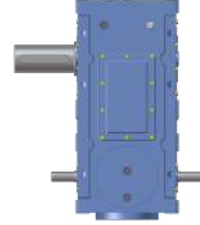
## 2.2 TYPOLOGY

| PC  | Mn <sub>2</sub> [Nm] | i    |     |
|-----|----------------------|------|-----|
|     | Max                  | Min  | Max |
| 176 | 9280                 | 1,25 | 90  |
| 196 | 12400                | 8    | 112 |
| 216 | 17360                | 1,25 | 355 |
| 246 | 21760                | 8    | 450 |
| 266 | 28560                | 1,25 | 355 |
| 276 | 35040                | 8    | 450 |
| 316 | 50800                | 1,6  | 355 |
| 346 | 61760                | 8    | 450 |
| 396 | 70400                | 1,6  | 355 |
| 406 | 87200                | 8    | 450 |

| BC  | Mn <sub>2</sub> [Nm] | i   |     |
|-----|----------------------|-----|-----|
|     | Max                  | Min | Max |
| 176 | 9280                 | 5   | 315 |
| 196 | 12400                | 6,3 | 400 |
| 216 | 17360                | 5   | 315 |
| 246 | 22160                | 6,3 | 400 |
| 266 | 28560                | 5   | 315 |
| 276 | 35040                | 6,3 | 400 |
| 316 | 50800                | 5   | 315 |
| 346 | 61760                | 6,3 | 400 |
| 396 | 72560                | 5   | 315 |
| 406 | 90400                | 6,3 | 400 |

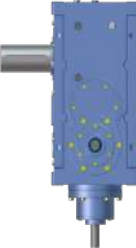
2.3.1 Executions

Parallel helical gear reducers

| PBZ-PBH-PBC                                                                        |                                                                                      |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| AZ                                                                                 | AU                                                                                   |
|   |   |
| DZ                                                                                 | DU                                                                                   |
|  |  |

Bevel helical gear reducers

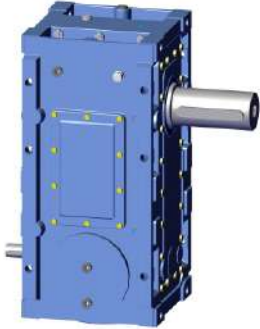
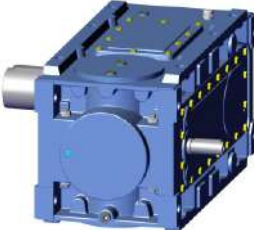
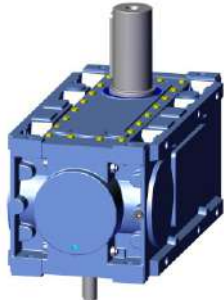
| PBZ-PBH-PBC                                                                         |                                                                                       |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| LR                                                                                  | LL                                                                                    |
|  |  |

| PBH                                                                                 |                                                                                     |                                                                                      |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SR                                                                                  | SL                                                                                  | DR                                                                                   | DL                                                                                    |
|  |  |  |  |

2.3.2 Mounting positions

The mounting position denotes the orientation of a gear reducer. Due to technical considerations, mounting position B3 should be preferred whenever possible, as it ensure less oil splashing, improved lubrication and less heating. Unless otherwise indicated, gear reducers are supplied for the B3 mounting position.

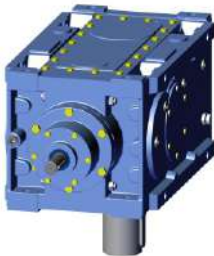
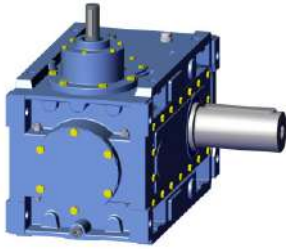
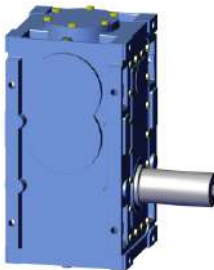
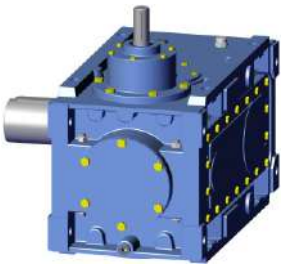
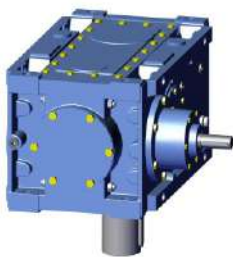
Parallel helical gear reducers

| PBZ-PBH-PBC |                                                                                     |                                                                                     |                                                                                       |
|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| AZ          | B3                                                                                  | B6 (*)                                                                              | B7                                                                                    |
|             |    |    |    |
|             | B3R                                                                                 | V5 (*)                                                                              | V6 (*)                                                                                |
|             |  |  |  |

(\*) Possible need of bearing forced lubrication, please contact MOTOVARIO TECHNICAL SERVICE.

2.3 MOUNTING POSITIONS

Bevel helical gear reducers

| PBZ-PBH-PBC |                                                                                     |                                                                                     |                                                                                       |
|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| LR          | B3                                                                                  | B6 (*)                                                                              | B7                                                                                    |
|             |    |    |    |
|             | B3R                                                                                 | V5 (*)                                                                              | V6 (*)                                                                                |
|             |   |   |   |
| PBH         |                                                                                     |                                                                                     |                                                                                       |
| SR          | B3 (*)                                                                              | B6                                                                                  | B7                                                                                    |
|             |  |  |  |
|             | B3R (*)                                                                             | V5 (*)                                                                              | V6 (*)                                                                                |
|             |  |  |  |

(\*) Possible need of bearing forced lubrication, please contact MOTOVARIO TECHNICAL SERVICE.

## 2.4 PRODUCT SELECTION

Follow this procedure to select your gear reducer properly:

1. Calculate reduction ratio  $i = n_1 / n_2$
2. Calculate output shaft torque  $M_2 = P_1 \cdot 9550 \cdot \eta / n_2$  [Nm]
3. Determine the service factor  $f_s$  required by the application according to:
  - Type of load (uniform, moderate, heavy)
  - Daily hours of operation
  - Number of starts per hour
  - Type of motor installed.
 Please refer to the tables: Table Application classification, Table  $f_{sa}$ , Table  $f_{sb}$  and Table  $f_{sc}$
4. Determine the required performance of the gear reducer  $M_{n2} = M_2 \cdot f_s$  [Nm]
5. Select gear reducer frame size, gearing and reduction ratio according to  $M_{n2}$ ,  $n_2$  and  $n_1$ .

### Service factor

The service factor required by application is defined by this formula  $f_s = f_{sa} \cdot f_{sb} \cdot f_{sc}$  (see relevant tables).

It takes into account how heavy-duty the application is; it depends on operating conditions, inverter type and frequency of gear reducer starts. The service factor of a gear reducer is calculated by dividing its nominal power by current input. The parameters that need to be taken into account in order to select the most suitable service factor are reported in tables  $f_{sa}$ ,  $f_{sb}$  and  $f_{sc}$ .

### Verifications

- Verify thermal capacity and ensure that the thermal capacity of the gear reducer under actual operating conditions is higher than the installed power at input shaft. See tables Pth (nominal thermal capacity), Pta (additional thermal capacity) and Fmp (factor mounting position).
- When overloading occurs due to starts under full load, braking, high inertia loads, check that instantaneous peak loading ( $M_{2max}$ ) is  $M_{2max} \leq 1,8 \cdot M_{n2}$   
 Note: instantaneous peak loading is an overload event lasting no more than 10 seconds.
- For radial and thrust loading on input and output shaft, please see the relevant tables.
- For input speeds higher than  $n_1 = 1750$  rpm, please contact MOTOVARIO TECHNICAL SERVICE.

Table  $f_{sa}$

| Nature of load applied | Daily operating hours [h/d] |      |      |      |      |
|------------------------|-----------------------------|------|------|------|------|
|                        | 2                           | 4    | 8    | 16   | 24   |
| Uniform                | 0,80                        | 0,90 | 1,00 | 1,25 | 1,35 |
| Moderate               | 1,00                        | 1,15 | 1,25 | 1,50 | 1,75 |
| Heavy                  | 1,25                        | 1,50 | 1,75 | 2,00 | 2,25 |

Table  $f_{sb}$

| Nature of load applied | Frequency of starts per hour [st/h] |          |           |            |
|------------------------|-------------------------------------|----------|-----------|------------|
|                        | < 8                                 | 8 ... 32 | 32 ... 64 | 64 ... 128 |
| Uniform                | 1                                   | 1,25     | 1,35      | 1,5        |
| Moderate               | 1                                   | 1,15     | 1,25      | 1,35       |
| Heavy                  | 1                                   | 1,05     | 1,15      | 1,25       |

Table  $f_{sc}$

| Type of motor used                    | $f_{sc}$ |
|---------------------------------------|----------|
| Electric motor                        | 1,00     |
| Reciprocating multiple-cylinder motor | 1,25     |
| Reciprocating single-cylinder motor   | 1,50     |

## 2.4 PRODUCT SELECTION

Table APPLICATION CLASSIFICATION

| Application                                            | Type of load |
|--------------------------------------------------------|--------------|
| <b>CONVEYORS (for heavy, not uniform loads)</b>        |              |
| Scraper                                                | Moderate     |
| Belt                                                   | Moderate     |
| Bucket                                                 | Moderate     |
| Elevators (Redler)                                     | Moderate     |
| Roller                                                 | Moderate     |
| For furnaces                                           | Moderate     |
| Reciprocating                                          | Heavy        |
| Oscillating                                            | Heavy        |
| Screw                                                  | Heavy        |
| Application                                            | Type of load |
| <b>PUMPS</b>                                           |              |
| Centrifugal                                            | Moderate     |
| Rotary (gear and screw) (for heavy, not uniform loads) | Uniform      |
| Rotary (gear and screw) (variable density)             | Moderate     |
| Reciprocating                                          | Uniform      |
| Reciprocating double-acting multiple-cylinder          | Moderate     |
| Reciprocating single-cylinder                          | Heavy        |
| Application                                            | Type of load |
| <b>MILLS</b>                                           |              |
| Rotary ball                                            | Heavy        |
| Hammer                                                 | Heavy        |
| Rolling                                                | Heavy        |
| Cement                                                 | Moderate     |
| Application                                            | Type of load |
| <b>COMPRESSORS</b>                                     |              |
| Centrifugal                                            | Uniform      |
| Sliding-vane positive-displacement                     | Moderate     |
| Reciprocating multiple-cylinder                        | Moderate     |
| Reciprocating single-cylinder                          | Heavy        |
| Application                                            | Type of load |
| <b>BATCHERS</b>                                        |              |
| Rotary                                                 | Moderate     |
| Reciprocating, vibrating                               | Moderate     |

| Application             | Type of load |
|-------------------------|--------------|
| <b>TEXTILE INDUSTRY</b> |              |
| Washing machines        | Moderate     |
| Rotary presses          | Moderate     |
| Carding machines        | Moderate     |
| Dyeing machines         | Moderate     |
| Looms                   | Moderate     |
| Picking machines        | Moderate     |
| Spinning machines       | Moderate     |

| Application           | Type of load |
|-----------------------|--------------|
| <b>PAPER INDUSTRY</b> |              |
| Mixers (stirrers)     | Moderate     |
| Conveyor belts        | Moderate     |
| Drying cylinders      | Moderate     |
| Felt stretchers       | Moderate     |
| Rotary presses        | Heavy        |
| Presses               | Heavy        |
| Winders               | Heavy        |

| Application          | Type of load |
|----------------------|--------------|
| <b>FOOD INDUSTRY</b> |              |
| Mixers               | Moderate     |
| Kneading machines    | Moderate     |
| Sugar beet cutters   | Moderate     |
| Meat grinders        | Moderate     |

| Application                        | Type of load |
|------------------------------------|--------------|
| <b>RUBBER AND PLASTIC MACHINES</b> |              |
| Mixers (palletizers)               | Heavy        |
| Rotary presses                     | Heavy        |
| Mills (crushers)                   | Heavy        |
| Tyre machines                      | Moderate     |

| Application                            | Type of load |
|----------------------------------------|--------------|
| <b>STIRRERS</b>                        |              |
| Variable-density                       | Moderate     |
| Variable-density with suspended solids | Moderate     |

## 2.4 PRODUCT SELECTION

Table APPLICATION CLASSIFICATION

| Application                                      | Type of load |
|--------------------------------------------------|--------------|
| <b>MACHINE TOOLS</b>                             |              |
| Punching presses                                 | Heavy        |
| Cutting                                          | Heavy        |
| Planers                                          | Heavy        |
| Main drives                                      | Moderate     |
| Auxiliary drives (feeders, workpieces, conveyor) | Uniform      |

| Application                           | Type of load |
|---------------------------------------|--------------|
| <b>FANS (regular, balanced speed)</b> |              |
| Centrifugal                           | Uniform      |
| Lightweight, small-diameter           | Uniform      |
| Cooling towers                        | Moderate     |
| Large-diameter turbo fans (mining)    | Moderate     |

| Application                      | Type of load |
|----------------------------------|--------------|
| <b>CRANES AND STACKER CRANES</b> |              |
| Arm rotation                     | Uniform      |
| Sideshifter                      | Moderate     |
| Basket drive control             | Heavy        |

| Application     | Type of load |
|-----------------|--------------|
| <b>CRUSHERS</b> |              |
| Ore             | Moderate     |
| Stone           | Moderate     |

| Application               | Type of load |
|---------------------------|--------------|
| <b>PACKAGING MACHINES</b> | Uniform      |

| Application                    | Type of load |
|--------------------------------|--------------|
| <b>EXTRACTORS AND DREDGERS</b> |              |
| Rope winders                   | Moderate     |
| Rail-mounted conveyors         | Moderate     |
| Pumps                          | Moderate     |
| Stackers                       | Moderate     |
| Material hoisting              | Moderate     |
| Bucket extractors              | Heavy        |

| Application          | Type of load |
|----------------------|--------------|
| <b>METAL-WORKING</b> |              |
| Drawbenches          | Heavy        |
| Forging presses      | Heavy        |
| Cutting machines     | Heavy        |
| Rolling mills        | Heavy        |

| Application      | Type of load |
|------------------|--------------|
| <b>MIXERS</b>    |              |
| Steady-density   | Uniform      |
| Variable-density | Moderate     |
| For concrete     | Moderate     |

| Application                  | Type of load |
|------------------------------|--------------|
| <b>ELEVATORS</b>             |              |
| Hoists                       | Moderate     |
| Lifts, ski lifts (cableways) | Heavy        |

| Application                       | Type of load |
|-----------------------------------|--------------|
| <b>WASHING MACHINES AND PUMPS</b> | Moderate     |

### 2.5.1 Information

Proper lubrication makes for:

- Lower friction;
- Less heating;
- Increased efficiency;
- Lower oil temperature;
- Less wear.

Motovario gear reducers of the MHD series have been designed for oil bath lubrication. For mounting position V5/V6 and with vertical input shaft, pressure-fed lubrication must be provided using a mechanical pump (external, driven directly by input or intermediate shaft) or a motor pump (external, driven by electric motor), see chapter DEVICES. Unless expressly requested, gear reducers are supplied dry, (to request oil supply, see table LUBRICANTS RECOMMENDED BY MOTOVARIO). In case of unavailability, please contact MOTOVARIO TECHNICAL SERVICE. To extend lubrication intervals and ambient temperature range, or reduce oil temperature, we recommend using **polyglycol or polyalphaolefin-based synthetic oil**. Choose the most appropriate oil depending on operating conditions:

- For light, intermittent duty without significant temperature fluctuations, use **mineral oil**;
- For heavy, continuous duty with significant temperature fluctuations, use **polyalphaolefin or polyglycol-based synthetic oil** depending on the application. **Polyglycol-based synthetic oils** mix with water and are not compatible with other oils, as their lubricating properties degrade very quickly. Use them with great care.

### 2.5.2 Lubricants

#### Specifications of LUBRICANTS RECOMMENDED BY MOTOVARIO

|         | Mineral oil          | Polyalphaolefin synthetic oil (PAO) | Polyglycol synthetic oil (PG) |
|---------|----------------------|-------------------------------------|-------------------------------|
| ENI     | BLASIA FMP           | BLASIA FSX                          | -                             |
| SHELL   | OMALA S2 GX          | OMALA S4 GXV                        | OMALA S4 WE                   |
| KLUBER  | Kluberoil GEM 1-...N | Klubersynth GEM 4-...N              | Klubersynth GH 6              |
| MOBIL   | MOBILGEAR XMP        | SHC GEAR                            | GLYGOYLE                      |
| CASTROL | ALPHA SP             | ALPHASYN T                          | ALPHASYN PG                   |
| BP      | ENERGOL GR-XP        | ENERSYN EP-XF                       | ENERSYN SG-XP                 |
| TOTAL   | CARTER EP            | CARTER SH                           | CARTER SY                     |

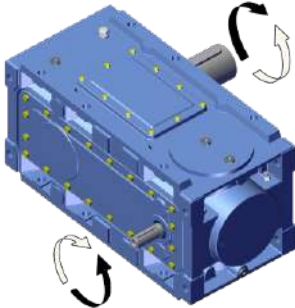
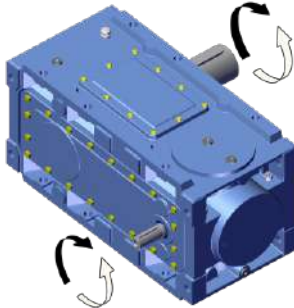
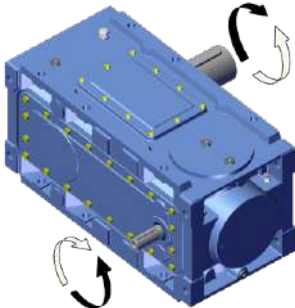
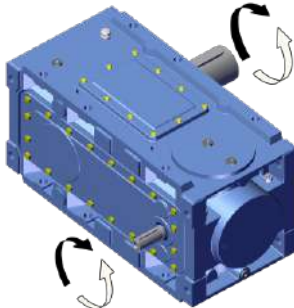
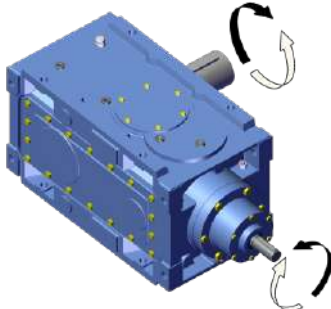
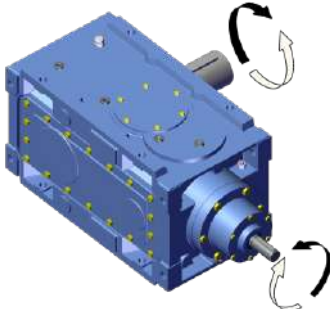
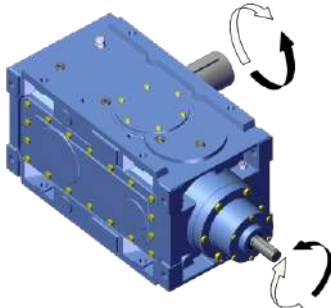
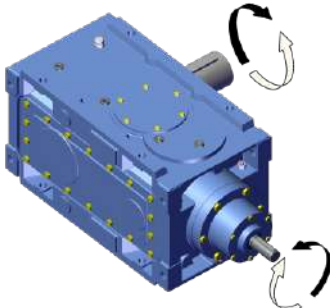
Based on the output speed  $n_2$ , check the oil type to be used in table ISO VISCOSITY GRADES, that provides the average kinematic speed value [cSt] at 40 °C.

Table ISO VISCOSITY GRADES

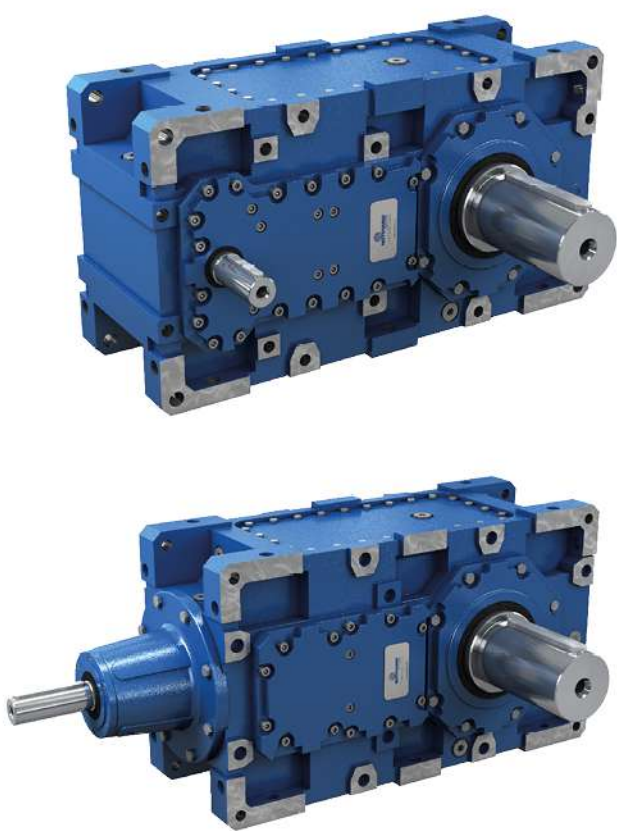
| $n_2$ (rpm) | $T_{amb}^{\circ C}$ |               |
|-------------|---------------------|---------------|
|             | Mineral oil         | Synthetic oil |
|             | (0) ÷ (+40)         | (-10) ÷ (+50) |
| > 210       | 150                 | 150           |
| 210 ÷ 20    | 150                 | 220           |
| 20 ÷ 5      | 220                 | 320           |
| <5          | 320                 | 460           |

2.6 DIRECTION OF ROTATION

Gear reducers are supplied as “standard” with rotation as shown in the diagram.

|    |                                                                                                           |                                                                                                              |
|----|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| AZ | <div>P1H-P1C</div>       | <div>P2Z-P2H-P2C</div>    |
|    | <div>P3Z-P3H-P3C</div>  | <div>P4Z-P4H-P4C</div>   |
| LR | <div>B2H-B2C</div>     | <div>B3Z-B3H-B3C</div>  |
|    | <div>B4Z</div>         | <div>B4H-B4C</div>      |





**PBZ**

4.1.1 Information

Nominal thermal capacity Pth is the maximum mechanical power that a gear reducer can transmit (under continuous duty) without its internal temperature rising to such a degree as to damage gear reducer components. Thermal capacity may be increased by using seals made from special rubber and synthetic oil, or suitable cooling devices. In the event of short duty cycles followed by periods of rest long enough to allow for gear reducer to cool down appropriately, thermal capacity loses significance and may be disregarded.

The scheme below indicates the nominal thermal power capacity [kW] according to the following conditions:

- Mounting position B3;
- Continuous operation at input speed <= 1500 rpm;
- Environment temperature Tamb=20°C;
- Sea level altitude;
- Air speed around the gear reducer >=1m/s;
- Absence of external radial and/or axial loads;
- Lubricant oil up to 85°C (mineral oil) and 95°C (synthetic oil).

Table NOMINAL THERMAL CAPACITY Pth

| Pth [kW] |                |                |                |                |                |                |                |                |                |                |
|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | PZ - BZ<br>179 | PZ - BZ<br>199 | PZ - BZ<br>219 | PZ - BZ<br>249 | PZ - BZ<br>269 | PZ - BZ<br>279 | PZ - BZ<br>319 | PZ - BZ<br>349 | PZ - BZ<br>399 | PZ - BZ<br>409 |
| P2Z      | 59             | 71             | 85             | 99             | 131            | 133            | 181            | 210            | 283            | 319            |
| P3Z      | 41             | 44             | 63             | 72             | 91             | 94             | 136            | 155            | 208            | 225            |
| P4Z      | -              | -              | 39             | 42             | 53             | 56             | 76             | 88             | 118            | 126            |
| B3Z      | 35             | 37             | 47             | 62             | 78             | 84             | 108            | 135            | 189            | 212            |
| B4Z      | -              | -              | 34             | 41             | 47             | 50             | 75             | 86             | 120            | 129            |

When a thermal capacity up to Pth is applied to the gear reducer under the reference conditions outlined above, the proper lubrication and operation of the gear reducer are guaranteed.

## 4.1.2 Verification

## Verification of the application

The thermal limit of a gear reducer under real-life application conditions must be verified for each and every application using the following formula:

$P_1 < P_{th} * f_{ta} * f_{tb} * f_{tc} * f_{tn} * f_{ts} * f_{tv}$ , where:

- $P_1$  = installed power [kW]
- $P_{th}$  = thermal capacity under reference conditions [kW] (see table "Nominal thermal capacity");
- $f_{ta}$  = sea-level elevation correction factor (see table);
- $f_{tb}$  = cooling fan correction factor (see table);
- $f_{tc}$  = ambient and operating temperature correction factor (see table);
- $f_{tn}$  = input speed  $n_1$  correction factor;
- $f_{ts}$  = cooling coil correction factor (see table);
- $f_{tv}$  = airflow speed correction factor around the gear reducer (see table).

Correction factors reflect operating conditions other than the reference conditions and are obtained from the following ISO14179 tables:

**Table  $f_{ta}$**   
Sea-level elevation correction factor

| Altitude [m] | $f_{ta}$ |
|--------------|----------|
| 0            | 1        |
| 750          | 0,95     |
| 1500         | 0,9      |
| 2250         | 0,85     |
| 3000         | 0,81     |

**Table  $f_{tb}$**   
Cooling fan correction factor

|         | $n_1$ [rpm] | $f_{tb}$ |
|---------|-------------|----------|
| P2Z-P3Z | 1400        | 1,8      |
| B3Z-B4Z | 1400        | 2        |

**Table  $f_{tc}$**   
Ambient and operating temperature correction factor

|                        |    | Duty per hour of operation % |      |      |      |      |
|------------------------|----|------------------------------|------|------|------|------|
|                        |    | 100                          | 80   | 60   | 40   | 20   |
| Ambient temperature °C | 10 | 1,15                         | 1,25 | 1,35 | 1,5  | 2    |
|                        | 20 | 1                            | 1,05 | 1,15 | 1,35 | 1,75 |
|                        | 30 | 0,9                          | 1    | 1,05 | 1,25 | 1,5  |
|                        | 40 | 0,75                         | 0,8  | 0,9  | 1    | 1,35 |
|                        | 50 | 0,6                          | 0,63 | 0,7  | 0,8  | 1    |

**Table  $f_{tn}$**   
Input speed  $n_1$  correction factor

| $f_{tn}$        | $n_1$ [rpm] |      |      |      |      |      |      |
|-----------------|-------------|------|------|------|------|------|------|
|                 | 700         | 900  | 1140 | 1400 | 1800 | 2250 | 2800 |
| P2Z - B3Z       | 1,1         | 1,07 | 1,05 | 1    | 0,9  | 0,85 | 0,75 |
| P3Z - P4Z - B4Z | 1,07        | 1,05 | 1,05 | 1    | 0,95 | 0,9  | 0,8  |

**Table  $f_{ts}$**   
Cooling coil correction factor

|     | $f_{ts}$ |
|-----|----------|
| PBZ | 2,25     |

**Table  $f_{tv}$**   
Airflow speed correction factor around the gear reducer

| Ventilation correction factor                        | $f_{tv}$ |
|------------------------------------------------------|----------|
| Stagnant air (<0,5 m/s)                              | 0,75     |
| Indoor installation with slight ventilation          | 1        |
| Indoor installation with good ventilation (>1,4 m/s) | 1,4      |

If unit is to operate at input speeds higher than 2800 rpm, or at ambient temperatures exceeding 50 °C, please contact MOTOVARIO TECHNICAL SERVICE.

**Cooling unit**

They are auxiliary cooling systems to be used if fan and coil are not enough to carry out the thermal check.

- Oil/Water - Heat exchanger consisting of motor pump, plate exchanger, pressure gauge, thermometer and minimum pressure switch;
- Oil/Air - Heat exchanger consisting of motor pump, motor fan, thermometer, thermostat, minimum pressure switch, and pressure gauge.

The following accessories are available upon request:

- PT100 oil temperature sensor for heat exchanger control;
- Flow meter.

The heat exchanger provides the unit with an additional thermal capacity (Pta) to be added to the standard thermal capacity, as explained by relation:

$$P1 < (Pth * fta * ftc * ftn * ftv) + (Pta * ftUR)$$

where:

**Pta**= additional thermal capacity [kW], for UR O/W or for UR O/A

**ftUR** = correction factor due to a temperature value other than +20°C of water for UR O/W or of air for UR O/A, respectively **P1**= installed power [kW],

**Pth, fta, ftc, ftn, ftv** = as specified in paragraph Thermal Capacity

**Table Pta - Additional thermal capacity [kW]**

**WATER - OIL**

**UR O/W with water temperature at 20°C**

| UR O/W | P2Z  | P3Z | P4Z | B3Z | B4Z |
|--------|------|-----|-----|-----|-----|
| 4      | 100  | 67  | 50  | 57  | 44  |
| 7      | 175  | 105 | 79  | 90  | 70  |
| 12     | 300  | 180 | 135 | 154 | 120 |
| 18     | 450  | 270 | 203 | 231 | 180 |
| 29     | 725  | 435 | 326 | 373 | 290 |
| 40     | 1000 | 600 | 450 | 514 | 400 |
| 50     | 1250 | 750 | 563 | 643 | 500 |

**Correction factors for water temperature values other than the standard ones specified in the catalogue**

|                        | [°C] | ft <sub>URO/W</sub> |
|------------------------|------|---------------------|
| Water Temperature [°C] | 10   | 1.05                |
|                        | 20   | 1                   |
|                        | 25   | 0.93                |
|                        | 30   | 0.8                 |
|                        | 35   | 0.8                 |

**Table Pta - Additional thermal capacity [kW]**

**AIR - OIL**

**UR O/A with air temperature at 20°C**

| UR O/A | P2Z  | P3Z | P4Z | B3Z | B4Z |
|--------|------|-----|-----|-----|-----|
| 4      | 100  | 56  | 42  | 48  | 38  |
| 7      | 175  | 99  | 74  | 85  | 66  |
| 12     | 300  | 169 | 127 | 145 | 113 |
| 18     | 450  | 254 | 191 | 218 | 169 |
| 29     | 725  | 410 | 307 | 351 | 273 |
| 40     | 1000 | 565 | 424 | 484 | 377 |
| 50     | 1250 | 706 | 530 | 605 | 471 |

**Correction factors for air temperature values other than the standard ones specified in the catalogue**

|                      | [°C] | ft <sub>URO/A</sub> |
|----------------------|------|---------------------|
| Air Temperature [°C] | 20   | 1                   |
|                      | 30   | 0.88                |
|                      | 40   | 0.75                |
|                      | 45   | 0.7                 |
|                      | 50   | 0.63                |

The value of maximum input speed  $n_1 \text{ max}$  shown in the table reflects continuous duty S1 (operation under steady loading for a period long enough to achieve thermal balance) and the B3 mounting position. Continuous speeds above 1800 rpm are nevertheless not recommended since they could cause overheating and early deterioration of seals, bearings and lubricant. Mounting positions other than B3 could make it necessary to use dedicated forced lubrication systems, while the transmission ratio could in some cases originate a further limitation of the permissible maximum input speed  $n_1 \text{ max}$ , contact MOTOVARIO TECHNICAL SERVICE. For intermittent duty, please contact MOTOVARIO TECHNICAL SERVICE.

Table MAXIMUM PERMISSIBLE INPUT SPEED  $n_1 \text{ max}$

| $n_1 \text{ max}$ [rpm] |      |      |      |      |      |
|-------------------------|------|------|------|------|------|
| PZ - BZ                 | P2Z  | P3Z  | P4Z  | B3Z  | B4Z  |
| 179                     | 2800 | 2800 | -    | 2800 | -    |
| 199                     | 2800 | 2800 | -    | 2400 | -    |
| 219                     | 2800 | 2800 | 2800 | 2400 | 2800 |
| 249                     | 2400 | 2800 | 2800 | 2240 | 2800 |
| 269                     | 2240 | 2800 | 2800 | 2240 | 2800 |
| 279                     | 2240 | 2800 | 2800 | 2000 | 2800 |
| 319                     | 1800 | 2400 | 2800 | 2000 | 2400 |
| 349                     | 1800 | 2400 | 2800 | 1800 | 2400 |
| 399                     | 1800 | 2000 | 2400 | 1800 | 2240 |
| 409                     | 1400 | 1800 | 2400 | 1400 | 2000 |

## 4.3 LUBRICATION

For the gear reducers of the PBZ series, it is always necessary to specify the mounting position.

The amount of oil in the table are merely indicative only and for the proper topping up you will have to refer to the level plug or the dipstick, if any. Any deviations in level can depend on construction tolerances but also by the placement of the unit or by the mounting surface at the customers' premises. For this reason it is appropriate that the customer checks and, if necessary, restores the level when the unit are installed.

Table OIL CAPACITIES IN LITRES ~ [l]

|            | P2Z |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 179 | 199 | 219 | 249 | 269 | 279 | 319 | 349 | 399 | 409 |
| <b>B3</b>  | 13  | 16  | 21  | 30  | 35  | 45  | 58  | 85  | 128 | 135 |
| <b>B3R</b> | 13  | 16  | 21  | 30  | 35  | 45  | 58  | 85  | 128 | 135 |
| <b>B6</b>  | 20  | 25  | 40  | 48  | 62  | 79  | 108 | 150 | 190 | 234 |
| <b>B7</b>  | 18  | 23  | 37  | 50  | 55  | 73  | 100 | 125 | 180 | 215 |
| <b>V5</b>  | 16  | 20  | 34  | 41  | 53  | 67  | 91  | 134 | 165 | 198 |
| <b>V6</b>  | 17  | 21  | 36  | 43  | 56  | 70  | 96  | 140 | 173 | 208 |

|            | P3Z |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 179 | 199 | 219 | 249 | 269 | 279 | 319 | 349 | 399 | 409 |
| <b>B3</b>  | 14  | 19  | 23  | 32  | 40  | 55  | 62  | 95  | 145 | 145 |
| <b>B3R</b> | 14  | 19  | 23  | 32  | 40  | 55  | 62  | 95  | 145 | 145 |
| <b>B6</b>  | 21  | 27  | 46  | 52  | 67  | 87  | 115 | 165 | 205 | 245 |
| <b>B7</b>  | 19  | 25  | 42  | 46  | 63  | 85  | 112 | 150 | 190 | 225 |
| <b>V5</b>  | 17  | 23  | 38  | 44  | 58  | 70  | 100 | 141 | 178 | 209 |
| <b>V6</b>  | 18  | 24  | 40  | 46  | 61  | 74  | 104 | 148 | 187 | 219 |

|            | P4Z |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 219 | 249 | 269 | 279 | 319 | 349 | 399 | 409 |
| <b>B3</b>  | 23  | 32  | 40  | 55  | 62  | 95  | 145 | 145 |
| <b>B3R</b> | 23  | 32  | 40  | 55  | 62  | 95  | 145 | 145 |
| <b>B6</b>  | 46  | 52  | 67  | 87  | 115 | 165 | 205 | 245 |
| <b>B7</b>  | 42  | 46  | 63  | 85  | 112 | 150 | 190 | 225 |
| <b>V5</b>  | 38  | 44  | 58  | 70  | 100 | 141 | 178 | 209 |
| <b>V6</b>  | 40  | 46  | 61  | 74  | 104 | 148 | 187 | 219 |

|            | B3Z |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 179 | 199 | 219 | 249 | 269 | 279 | 319 | 349 | 399 | 409 |
| <b>B3</b>  | 13  | 16  | 21  | 30  | 35  | 45  | 58  | 85  | 128 | 135 |
| <b>B3R</b> | 13  | 16  | 21  | 30  | 35  | 45  | 58  | 85  | 128 | 135 |
| <b>B6</b>  | 20  | 25  | 40  | 48  | 62  | 79  | 108 | 150 | 190 | 234 |
| <b>B7</b>  | 18  | 23  | 37  | 50  | 55  | 73  | 100 | 125 | 180 | 215 |
| <b>V5</b>  | 16  | 20  | 34  | 41  | 53  | 67  | 91  | 134 | 165 | 198 |
| <b>V6</b>  | 17  | 21  | 36  | 43  | 56  | 70  | 96  | 140 | 173 | 208 |

|            | B4Z |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 219 | 249 | 269 | 279 | 319 | 349 | 399 | 409 |
| <b>B3</b>  | 23  | 32  | 40  | 55  | 62  | 95  | 145 | 145 |
| <b>B3R</b> | 23  | 32  | 40  | 55  | 62  | 95  | 145 | 145 |
| <b>B6</b>  | 46  | 52  | 67  | 87  | 115 | 165 | 205 | 245 |
| <b>B7</b>  | 42  | 46  | 63  | 85  | 112 | 150 | 190 | 225 |
| <b>V5</b>  | 38  | 44  | 58  | 70  | 100 | 141 | 178 | 209 |
| <b>V6</b>  | 40  | 46  | 61  | 74  | 104 | 148 | 187 | 219 |

## 4.4.1 Information

Permissible radial load [N] values are indicated in the following tables and refer to the load applied at shaft midpoint in the worst conditions, in terms of angle of application and direction of rotation. In the event of special conditions that exceed the ratings given in the catalogue, please contact MOTOVARIO TECHNICAL SERVICE and submit the full application data: direction of loading, direction of rotation of shaft, type of duty. For double-ended and hollow shafts, where radial loading is to be applied at both ends, maximum permissible loads must be determined according to specific operating conditions. When this is the case, please contact MOTOVARIO TECHNICAL SERVICE.

Shaft radial loading is calculated by the following formula:  $Fr = (2000 \cdot M \cdot fz) / D \leq Fr1 \text{ or } Fr2$  where:

- **Fr** [N] Resultant radial load
- **M** [Nm] Shaft torque
- **D** [mm] Diameter of transmission element mounted on the shaft
- **Fr1-Fr2** [N] Maximum permissible radial loading (see relevant tables)
- **fz** = 1,1 Gear pinion  
1,4 Chain wheel  
1,4 Pulley for timing belt drive  
2,5 V belt pulley

## 4.4.2 Input - Radial load

Fr1 [N] is the permissible radial load value from the gear reducer in continuous service, applied at the centre line of the shaft, considering input speed  $n_1 = 1400$  rpm.

For radial load application positions other than on the centre line, contact MOTOVARIO TECHNICAL SERVICE.

|     | PBZ | 179  | 199  | 219  | 249  | 269   | 279   | 319 (1) | 349 (2) | 399 (3) | 409 (4) |
|-----|-----|------|------|------|------|-------|-------|---------|---------|---------|---------|
| Fr1 | P2Z | 6000 | 6000 | 8000 | 8000 | 10000 | 10000 | 17000   | 17000   | 21000   | 21000   |
|     | P3Z | 4700 | 4700 | 6100 | 6100 | 9000  | 9000  | 12000   | 12000   | 15000   | 15000   |
|     | P4Z | -    | -    | 4000 | 4000 | 4900  | 4900  | 5900    | 5900    | 9100    | 9100    |
|     | B3Z | 4700 | 4700 | 6100 | 6100 | 9000  | 9000  | 12000   | 12000   | 13000   | 13000   |
|     | B4Z | -    | -    | 4000 | 4000 | 4900  | 4900  | 5900    | 5900    | 9100    | 9100    |

(1) In case of  $i \leq 11,55$  and presence of radial load Fr1, contact MOTOVARIO TECHNICAL SERVICE.

(2) In case of  $i \leq 14,85$  and presence of radial load Fr1, contact MOTOVARIO TECHNICAL SERVICE.

(3) In case of  $i \leq 10,94$  and presence of radial load Fr1, contact MOTOVARIO TECHNICAL SERVICE.

(4) In case of  $i \leq 13,24$  and presence of radial load Fr1, contact MOTOVARIO TECHNICAL SERVICE.

## 4.4.3 Output - Radial load

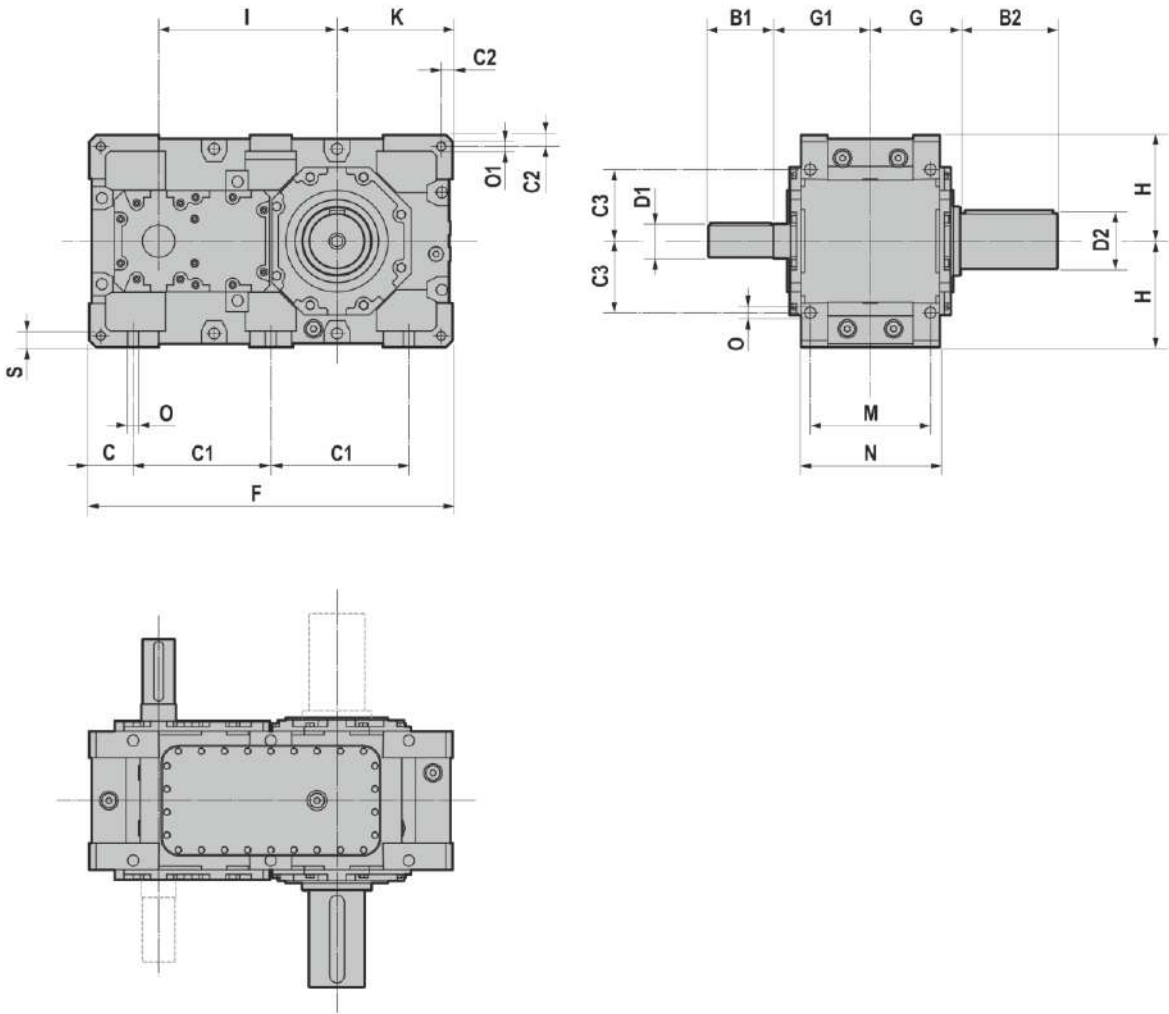
Fr2 [N] is the permissible radial load value from the gear reducer in continuous service, applied at the centre line of the output shaft, calculated considering the most unfavourable conditions as for application angle and direction of rotation. For radial load application positions other than on the centre line and/or in case of axial loads, contact MOTOVARIO TECHNICAL SERVICE.

|     | PBZ                    | 179   | 199   | 219    | 249    | 269   | 279    | 319 (1) | 349    | 399    | 409    |
|-----|------------------------|-------|-------|--------|--------|-------|--------|---------|--------|--------|--------|
| Fr2 | P2Z                    | 40000 | 63000 | 68000  | 80000  | 80000 | 79000  | 80000   | 152000 | 176000 | 201000 |
|     | P3Z - P4Z<br>B3Z - B4Z | 56000 | 94000 | 106000 | 112000 | 80000 | 132000 | 143000  | 186000 | 210000 | 318000 |

(1) In case of  $i \leq 11,55$  and presence of radial load Fr2, contact MOTOVARIO TECHNICAL SERVICE.

5.1 REDUCERS/GEARED MOTORS

5.1.1 P2Z



5.1 REDUCERS/GEARED MOTORS

PBZ

| P2Z | D2  | B2  | C     | C1    | C2   | C3    | F    | G   | G1  |
|-----|-----|-----|-------|-------|------|-------|------|-----|-----|
| 179 | 100 | 210 | 75    | 245   | 22,5 | 137,5 | 640  | 165 | 195 |
| 199 | 110 | 210 | 80    | 280   | 22,5 | 150   | 720  | 165 | 195 |
| 219 | 120 | 210 | 95    | 297,5 | 25   | 155   | 785  | 195 | 210 |
| 249 | 130 | 250 | 105   | 340   | 30   | 180   | 890  | 195 | 210 |
| 269 | 140 | 250 | 105   | 360   | 30   | 195   | 930  | 235 | 240 |
| 279 | 160 | 300 | 117,5 | 395   | 35   | 210   | 1025 | 235 | 240 |
| 319 | 170 | 300 | 127,5 | 425   | 35   | 220   | 1105 | 270 | 275 |
| 349 | 180 | 300 | 140   | 490   | 40   | 265   | 1260 | 270 | 275 |
| 399 | 200 | 350 | 115   | 545   | 95   | 300   | 1320 | 335 | 330 |
| 409 | 220 | 350 | 127,5 | 600   | 95   | 300   | 1455 | 335 | 330 |

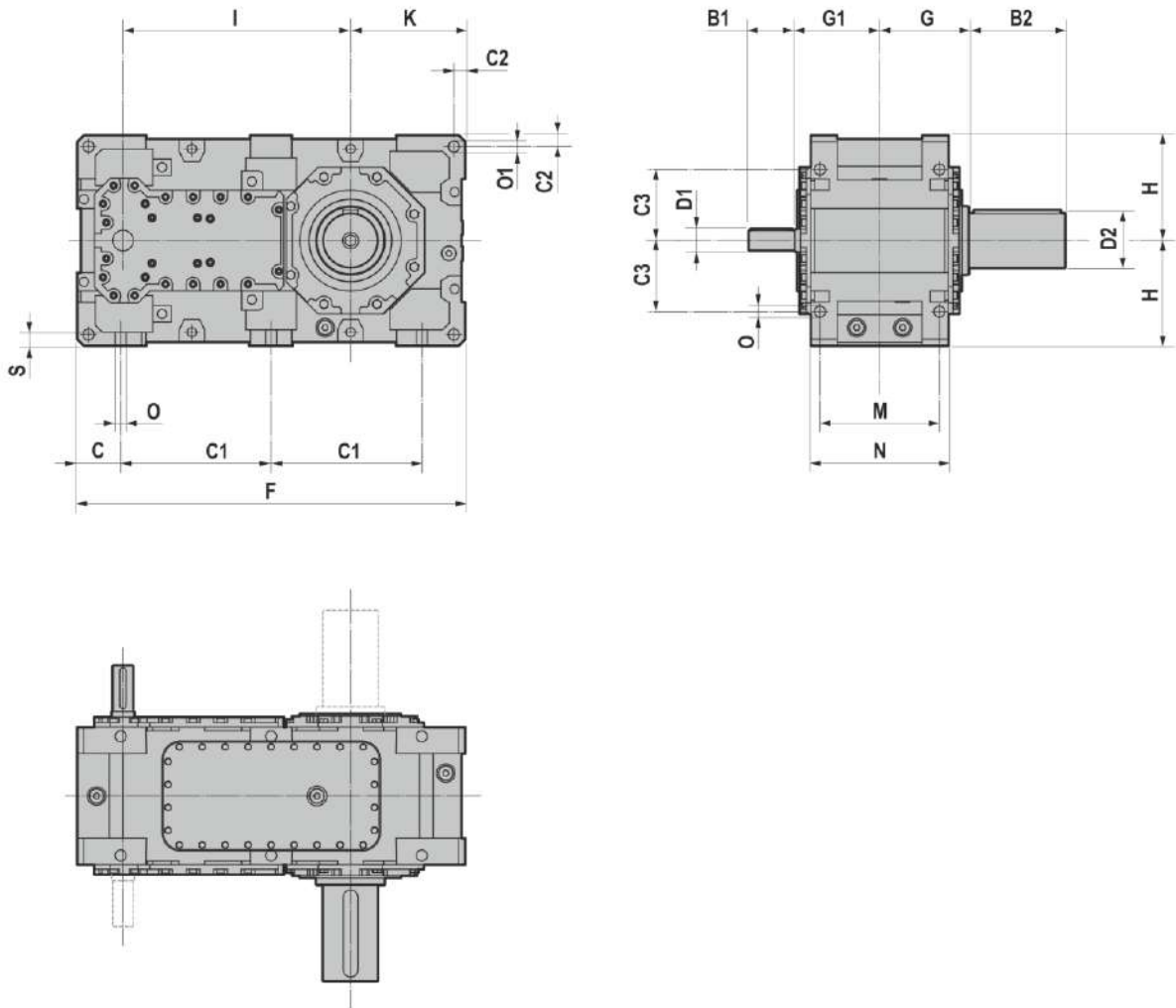
| P2Z | H   | I   | K   | M   | N   | O  | O1 | S  |
|-----|-----|-----|-----|-----|-----|----|----|----|
| 179 | 200 | 315 | 205 | 220 | 255 | 19 | 19 | 28 |
| 199 | 230 | 350 | 250 | 220 | 255 | 19 | 19 | 30 |
| 219 | 230 | 385 | 250 | 260 | 300 | 24 | 24 | 35 |
| 249 | 280 | 430 | 310 | 260 | 300 | 24 | 28 | 40 |
| 269 | 280 | 455 | 300 | 320 | 370 | 28 | 28 | 40 |
| 279 | 320 | 500 | 350 | 320 | 370 | 28 | 32 | 40 |
| 319 | 320 | 545 | 345 | 370 | 430 | 35 | 32 | 50 |
| 349 | 400 | 615 | 430 | 370 | 430 | 35 | 32 | 50 |
| 399 | 440 | 665 | 405 | 475 | 550 | 35 | 35 | 60 |
| 409 | 440 | 730 | 475 | 475 | 550 | 35 | 35 | 60 |

| P2Z | i            | D1  | B1  |
|-----|--------------|-----|-----|
| 179 | 6,37 - 11,4  | 55  | 100 |
|     | 13,7 - 16,8  | 45  | 90  |
|     | 18,2 - 20,9  | 40  | 80  |
| 199 | 7,91 - 14,1  | 55  | 100 |
|     | 17,0 - 20,9  | 45  | 90  |
|     | 22,6 - 26,0  | 40  | 80  |
| 219 | 6,28 - 10,03 | 70  | 140 |
|     | 11,0 - 14,7  | 55  | 100 |
|     | 16,1 - 18,9  | 50  | 110 |
| 249 | 7,96 - 12,7  | 70  | 140 |
|     | 13,9 - 18,6  | 55  | 100 |
|     | 20,4 - 24,0  | 50  | 110 |
| 269 | 6,44 - 11,1  | 80  | 140 |
|     | 12,0 - 16,3  | 65  | 120 |
|     | 17,5 - 20,7  | 55  | 100 |
| 279 | 7,96 - 13,8  | 80  | 140 |
|     | 14,9 - 20,1  | 65  | 120 |
|     | 21,6 - 25,6  | 55  | 100 |
| 319 | 6,33 - 11,6  | 95  | 160 |
|     | 13,3 - 15,5  | 80  | 140 |
|     | 16,7 - 20,5  | 70  | 130 |
| 349 | 8,14 - 14,9  | 95  | 160 |
|     | 17,1 - 20,0  | 80  | 140 |
|     | 21,5 - 26,3  | 70  | 130 |
| 399 | 6,62 - 10,9  | 100 | 205 |
|     | 12,3 - 17,2  | 85  | 170 |
|     | 18,6 - 20,2  | 85  | 170 |
| 409 | 8,01 - 13,2  | 100 | 205 |
|     | 14,8 - 20,8  | 85  | 170 |
|     | 22,5 - 24,4  | 85  | 170 |

5.1 REDUCERS/GEARED MOTORS

5.1.2 P3Z

PBZ



## 5.1 REDUCERS/GEARED MOTORS

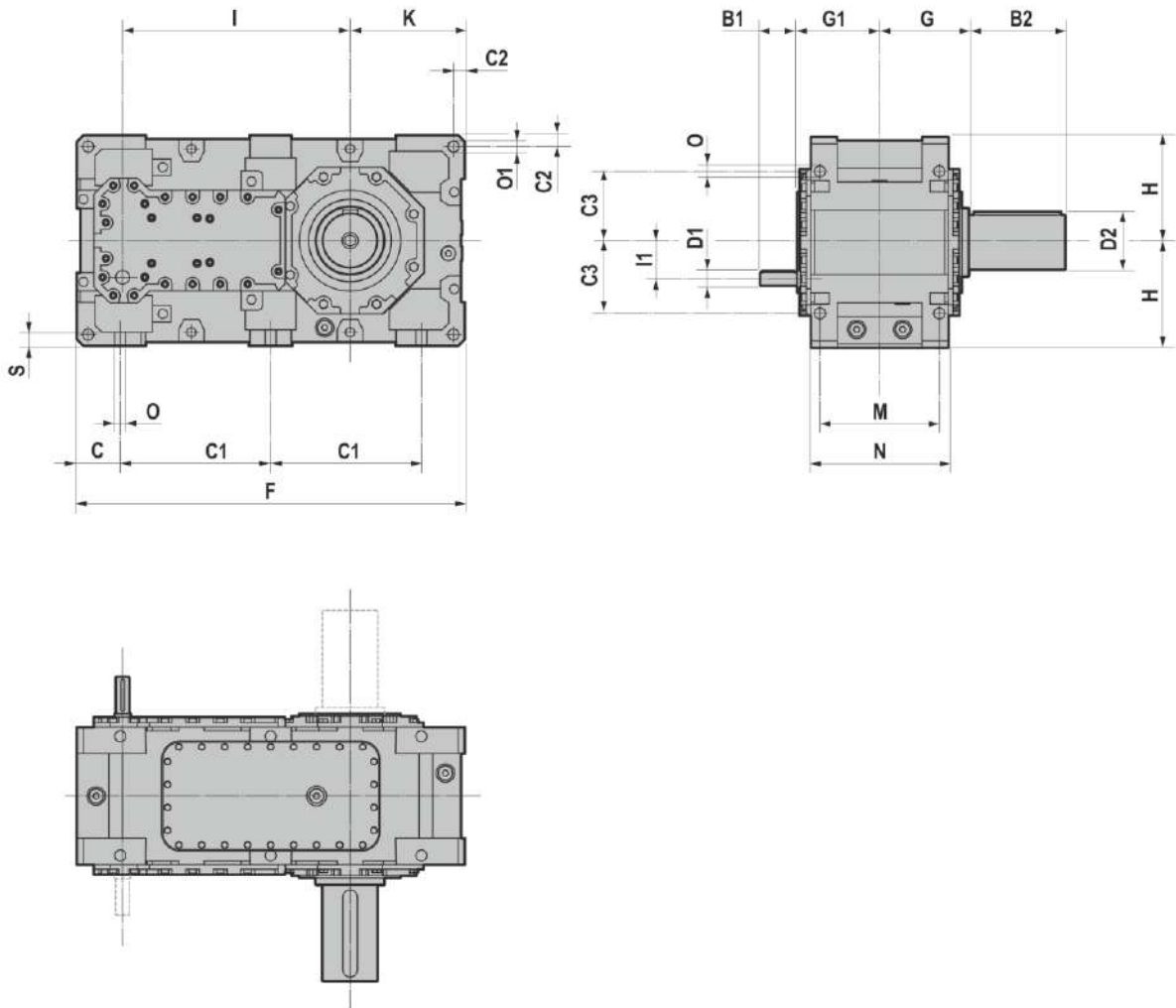
| P3Z | D2  | B2  | C     | C1    | C2   | C3    | F    | G   | G1  |
|-----|-----|-----|-------|-------|------|-------|------|-----|-----|
| 179 | 100 | 210 | 75    | 270   | 22,5 | 137,5 | 690  | 165 | 160 |
| 199 | 110 | 210 | 80    | 305   | 22,5 | 155   | 770  | 165 | 160 |
| 219 | 120 | 210 | 95    | 327,5 | 25   | 155   | 845  | 195 | 185 |
| 249 | 130 | 250 | 105   | 375   | 35   | 180   | 960  | 195 | 185 |
| 269 | 140 | 250 | 105   | 400   | 30   | 195   | 1005 | 235 | 230 |
| 279 | 160 | 300 | 117,5 | 432,5 | 40   | 210   | 1100 | 235 | 230 |
| 319 | 170 | 300 | 127,5 | 472,5 | 30   | 220   | 1200 | 270 | 255 |
| 349 | 180 | 300 | 140   | 537,5 | 40   | 265   | 1355 | 270 | 255 |
| 399 | 200 | 350 | 115   | 597,5 | 95   | 300   | 1425 | 335 | 310 |
| 409 | 220 | 350 | 127,5 | 652,5 | 95   | 300   | 1560 | 335 | 310 |

| P3Z | H   | I   | K   | M   | N   | O  | O1 | S  |
|-----|-----|-----|-----|-----|-----|----|----|----|
| 179 | 200 | 405 | 205 | 220 | 255 | 19 | 19 | 28 |
| 199 | 230 | 440 | 250 | 220 | 255 | 19 | 19 | 28 |
| 219 | 230 | 495 | 250 | 260 | 300 | 24 | 24 | 35 |
| 249 | 280 | 540 | 315 | 260 | 300 | 24 | 28 | 40 |
| 269 | 280 | 585 | 300 | 320 | 370 | 28 | 28 | 40 |
| 279 | 320 | 630 | 350 | 320 | 370 | 28 | 32 | 40 |
| 319 | 320 | 705 | 345 | 370 | 430 | 35 | 32 | 50 |
| 349 | 400 | 775 | 430 | 370 | 430 | 35 | 32 | 50 |
| 399 | 440 | 850 | 405 | 475 | 550 | 35 | 35 | 60 |
| 409 | 440 | 915 | 475 | 475 | 550 | 35 | 35 | 60 |

| P3Z | i           | D1 | B1  |
|-----|-------------|----|-----|
| 179 | 24,5 - 42,9 | 35 | 80  |
|     | 46,4 - 68,2 | 30 | 80  |
|     | 73,9 - 86,2 | 25 | 70  |
| 199 | 30,5 - 53,3 | 35 | 80  |
|     | 57,7 - 84,7 | 30 | 80  |
|     | 91,8 - 107  | 25 | 70  |
| 219 | 22,6 - 41,5 | 45 | 100 |
|     | 49,8 - 62,7 | 35 | 90  |
|     | 70,5 - 81,3 | 30 | 90  |
| 249 | 28,6 - 52,6 | 45 | 100 |
|     | 63,1 - 79,4 | 35 | 90  |
|     | 89,4 - 103  | 30 | 90  |
| 269 | 25,1 - 44,7 | 55 | 120 |
|     | 53,9 - 66,1 | 45 | 110 |
|     | 71,5 - 82,3 | 40 | 100 |
| 279 | 31,0 - 55,3 | 55 | 120 |
|     | 66,6 - 81,7 | 45 | 110 |
|     | 88,5 - 102  | 40 | 100 |
| 319 | 24,3 - 38,8 | 70 | 160 |
|     | 42,4 - 56,8 | 55 | 120 |
|     | 62,3 - 73,2 | 50 | 130 |
| 349 | 31,2 - 49,9 | 70 | 160 |
|     | 54,5 - 73,0 | 55 | 120 |
|     | 80,1 - 94,1 | 50 | 130 |
| 399 | 24,9 - 43,2 | 80 | 160 |
|     | 46,6 - 63,0 | 65 | 140 |
|     | 67,6 - 80,0 | 55 | 120 |
| 409 | 30,2 - 52,2 | 80 | 160 |
|     | 56,4 - 76,2 | 65 | 140 |
|     | 81,8 - 96,8 | 55 | 120 |

5.1 REDUCERS/GEARED MOTORS

5.1.3 P4Z



5.1 REDUCERS/GEARED MOTORS

PBZ

| P4Z | D2  | B2  | C     | C1    | C2 | C3  | F    | G   | G1  |
|-----|-----|-----|-------|-------|----|-----|------|-----|-----|
| 219 | 120 | 210 | 95    | 327,5 | 25 | 155 | 845  | 195 | 180 |
| 249 | 130 | 250 | 105   | 375   | 35 | 180 | 960  | 195 | 180 |
| 269 | 140 | 250 | 105   | 400   | 30 | 195 | 1005 | 235 | 215 |
| 279 | 160 | 300 | 117,5 | 432,5 | 40 | 210 | 1100 | 235 | 215 |
| 319 | 170 | 300 | 127,5 | 472,5 | 30 | 220 | 1200 | 270 | 250 |
| 349 | 180 | 300 | 140   | 537,5 | 40 | 265 | 1355 | 270 | 250 |
| 399 | 200 | 350 | 115   | 597,5 | 95 | 300 | 1425 | 335 | 310 |
| 409 | 220 | 350 | 127,5 | 652,5 | 95 | 300 | 1560 | 335 | 310 |

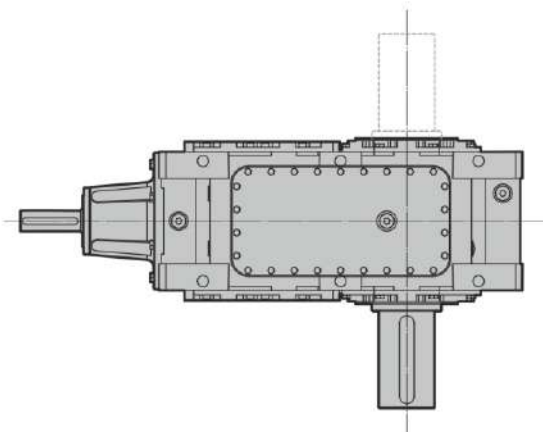
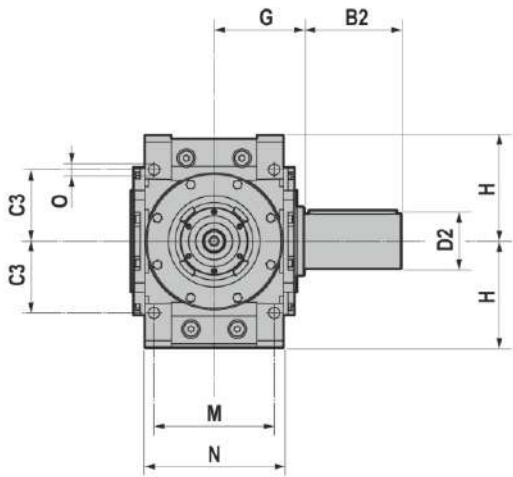
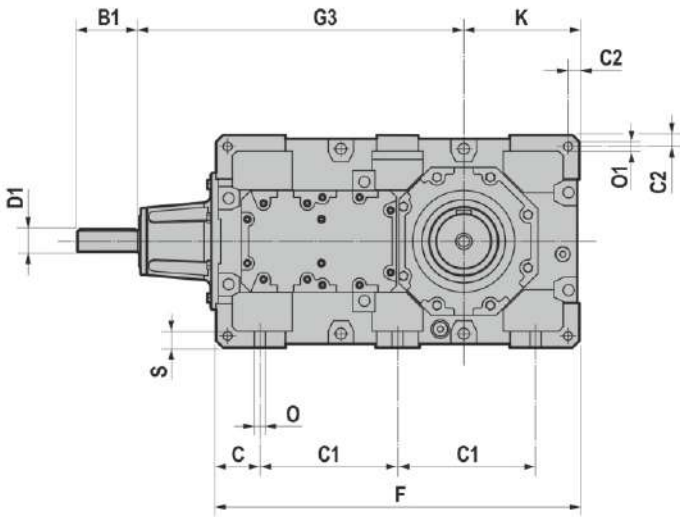
| P4Z | H   | I   | II  | K   | M   | N   | O  | O1 | S  |
|-----|-----|-----|-----|-----|-----|-----|----|----|----|
| 219 | 230 | 495 | 80  | 250 | 260 | 300 | 24 | 24 | 35 |
| 249 | 280 | 540 | 80  | 315 | 260 | 300 | 24 | 28 | 40 |
| 269 | 280 | 585 | 90  | 300 | 320 | 370 | 28 | 28 | 40 |
| 279 | 320 | 630 | 90  | 350 | 320 | 370 | 28 | 32 | 40 |
| 319 | 320 | 705 | 110 | 345 | 370 | 430 | 35 | 32 | 50 |
| 349 | 400 | 775 | 110 | 430 | 370 | 430 | 35 | 32 | 50 |
| 399 | 440 | 850 | 130 | 405 | 475 | 550 | 35 | 35 | 60 |
| 409 | 440 | 915 | 130 | 475 | 475 | 550 | 35 | 35 | 60 |

| P4Z | i          | D1 | B1  |
|-----|------------|----|-----|
| 219 | 87,8 - 161 | 30 | 80  |
|     | 188 - 224  | 25 | 70  |
|     | 243 - 318  | 20 | 50  |
| 249 | 111 - 204  | 30 | 80  |
|     | 238 - 284  | 25 | 70  |
|     | 308 - 403  | 20 | 50  |
| 269 | 96,5 - 183 | 35 | 80  |
|     | 202 - 268  | 30 | 80  |
|     | 291 - 339  | 25 | 70  |
| 279 | 119 - 226  | 35 | 80  |
|     | 250 - 332  | 30 | 80  |
|     | 360 - 419  | 25 | 70  |
| 319 | 87,4 - 160 | 45 | 90  |
|     | 192 - 242  | 35 | 80  |
|     | 273 - 314  | 30 | 80  |
| 349 | 112 - 206  | 45 | 90  |
|     | 247 - 312  | 35 | 80  |
|     | 350 - 404  | 30 | 80  |
| 399 | 97,1 - 173 | 55 | 100 |
|     | 209 - 256  | 45 | 90  |
|     | 277 - 319  | 40 | 80  |
| 409 | 117 - 210  | 55 | 100 |
|     | 252 - 310  | 45 | 90  |
|     | 335 - 386  | 40 | 80  |

5.1 REDUCERS/GEARED MOTORS

5.1.4 B3Z

PBZ



## 5.1 REDUCERS/GEARED MOTORS

| B3Z | D2  | B2  | C     | C1    | C2   | C3    | F    | G   |
|-----|-----|-----|-------|-------|------|-------|------|-----|
| 179 | 100 | 210 | 75    | 245   | 22,5 | 137,5 | 640  | 165 |
| 199 | 110 | 210 | 80    | 280   | 22,2 | 150   | 720  | 165 |
| 219 | 120 | 210 | 95    | 297,5 | 25   | 155   | 785  | 195 |
| 249 | 130 | 250 | 105   | 340   | 30   | 180   | 890  | 195 |
| 269 | 140 | 250 | 105   | 360   | 30   | 195   | 930  | 235 |
| 279 | 160 | 300 | 117,5 | 395   | 35   | 210   | 1025 | 235 |
| 319 | 170 | 300 | 127,5 | 425   | 35   | 220   | 1105 | 270 |
| 349 | 180 | 300 | 140   | 490   | 40   | 265   | 1260 | 270 |
| 399 | 220 | 350 | 115   | 545   | 95   | 300   | 1320 | 335 |
| 409 | 220 | 350 | 127,5 | 600   | 95   | 300   | 1455 | 335 |

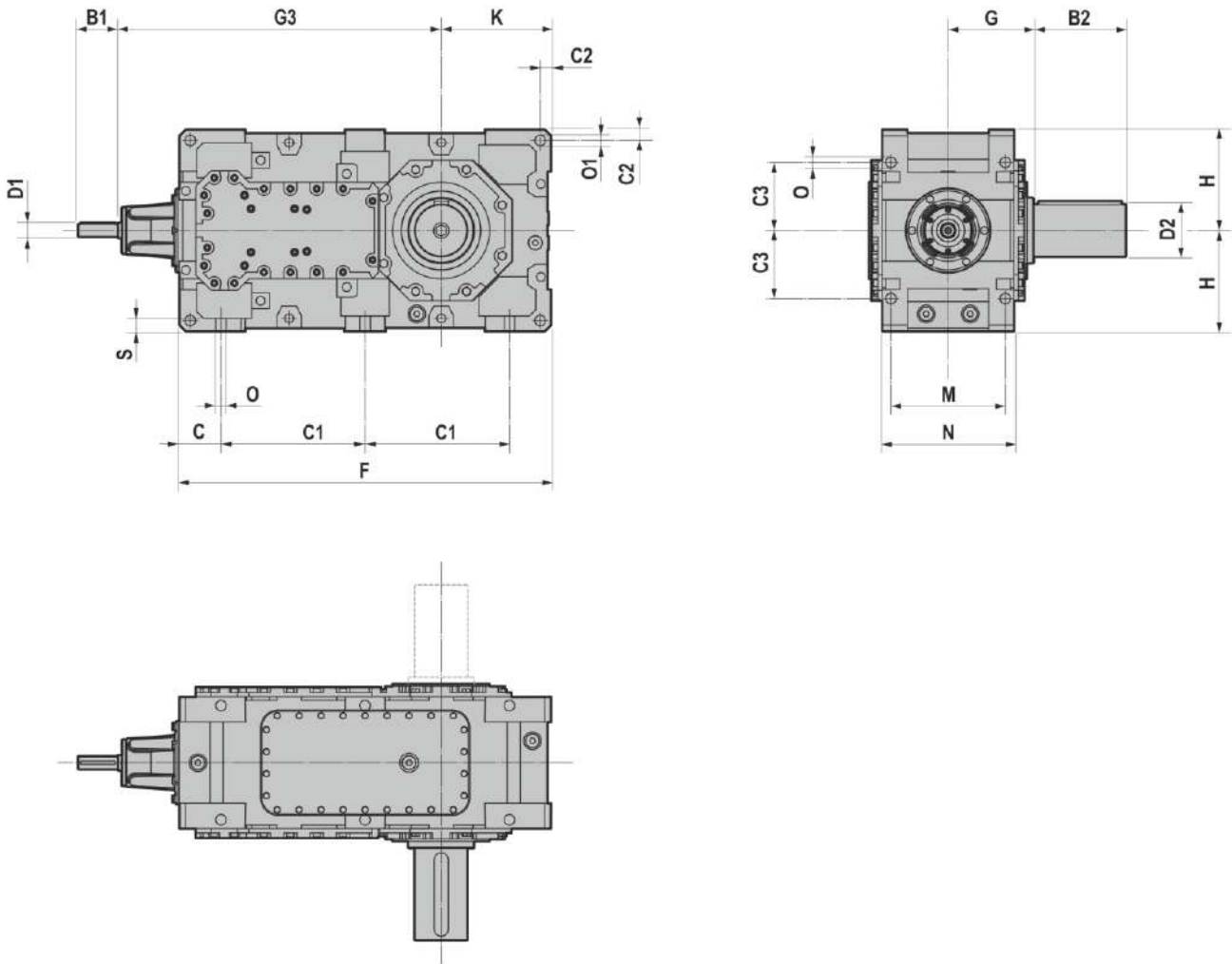
| B3Z | G3   | H   | K   | M   | N   | O  | O1 | S  |
|-----|------|-----|-----|-----|-----|----|----|----|
| 179 | 585  | 200 | 205 | 220 | 255 | 19 | 19 | 28 |
| 199 | 620  | 230 | 250 | 220 | 255 | 19 | 19 | 30 |
| 219 | 705  | 230 | 250 | 260 | 300 | 24 | 24 | 40 |
| 249 | 750  | 280 | 310 | 260 | 300 | 24 | 28 | 35 |
| 269 | 815  | 280 | 300 | 320 | 370 | 28 | 28 | 40 |
| 279 | 860  | 320 | 350 | 320 | 370 | 28 | 32 | 40 |
| 319 | 970  | 320 | 345 | 370 | 430 | 35 | 32 | 50 |
| 349 | 1040 | 400 | 430 | 370 | 430 | 35 | 32 | 50 |
| 399 | 1155 | 440 | 405 | 475 | 550 | 35 | 35 | 60 |
| 409 | 1220 | 440 | 475 | 475 | 550 | 35 | 35 | 60 |

| B3Z | i           | D1 | B1  |
|-----|-------------|----|-----|
| 179 | 13,3 - 35,0 | 35 | 100 |
|     | 37,9 - 69,8 | 28 | 80  |
| 199 | 16,5 - 43,5 | 35 | 100 |
|     | 47,1 - 86,6 | 28 | 80  |
| 219 | 12,0 - 28,2 | 45 | 130 |
|     | 30,9 - 58,4 | 35 | 110 |
| 249 | 15,3 - 35,7 | 45 | 130 |
|     | 39,2 - 74,0 | 35 | 110 |
| 269 | 12,3 - 31,2 | 55 | 130 |
|     | 34,4 - 63,7 | 40 | 120 |
| 279 | 15,3 - 38,6 | 55 | 130 |
|     | 42,5 - 78,8 | 40 | 120 |
| 319 | 12,1 - 32,1 | 70 | 160 |
|     | 38,8 - 59,7 | 50 | 140 |
| 349 | 15,6 - 41,2 | 70 | 160 |
|     | 49,8 - 76,8 | 50 | 140 |
| 399 | 12,7 - 29,2 | 80 | 165 |
|     | 33,7 - 62,3 | 60 | 140 |
| 409 | 15,4 - 35,3 | 80 | 165 |
|     | 40,8 - 75,4 | 60 | 140 |

5.1 REDUCERS/GEARED MOTORS

5.1.5 B4Z

PBZ



5.1 REDUCERS/GEARED MOTORS

TECHNICAL CATALOGUE

| B4Z | D2  | B2  | C     | C1    | C2 | C3  | F    | G   |
|-----|-----|-----|-------|-------|----|-----|------|-----|
| 219 | 120 | 210 | 95    | 327,5 | 25 | 155 | 845  | 195 |
| 249 | 130 | 250 | 105   | 375   | 35 | 180 | 960  | 195 |
| 269 | 140 | 250 | 105   | 400   | 30 | 195 | 1005 | 235 |
| 279 | 160 | 300 | 117,5 | 432,5 | 40 | 210 | 1100 | 235 |
| 319 | 170 | 300 | 127,5 | 472,5 | 30 | 220 | 1200 | 270 |
| 349 | 180 | 300 | 140   | 537,5 | 40 | 265 | 1355 | 270 |
| 399 | 200 | 350 | 115   | 597,5 | 95 | 300 | 1425 | 335 |
| 409 | 220 | 350 | 127,5 | 652,5 | 95 | 300 | 1560 | 335 |

| B4Z | G3   | H   | K   | M   | N   | O  | O1 | S  |
|-----|------|-----|-----|-----|-----|----|----|----|
| 219 | 735  | 230 | 250 | 260 | 300 | 24 | 24 | 35 |
| 249 | 785  | 280 | 315 | 260 | 300 | 24 | 28 | 40 |
| 269 | 855  | 280 | 300 | 320 | 370 | 28 | 28 | 40 |
| 279 | 900  | 320 | 350 | 320 | 370 | 28 | 32 | 40 |
| 319 | 1025 | 320 | 345 | 370 | 430 | 35 | 32 | 50 |
| 349 | 1095 | 400 | 430 | 370 | 430 | 35 | 32 | 50 |
| 399 | 1210 | 440 | 405 | 475 | 550 | 35 | 35 | 60 |
| 409 | 1275 | 440 | 475 | 475 | 550 | 35 | 35 | 60 |

| B4Z | i          | D1 | B1  |
|-----|------------|----|-----|
| 219 | 60,6 - 115 | 30 | 90  |
|     | 128 - 330  | 25 | 80  |
| 249 | 76,8 - 146 | 30 | 90  |
|     | 162 - 419  | 25 | 80  |
| 269 | 79,0 - 138 | 35 | 100 |
|     | 149 - 348  | 28 | 80  |
| 279 | 97,8 - 170 | 35 | 100 |
|     | 184 - 431  | 28 | 80  |
| 319 | 63,0 - 109 | 45 | 130 |
|     | 120 - 320  | 35 | 110 |
| 349 | 81,0 - 140 | 45 | 130 |
|     | 154 - 412  | 35 | 110 |
| 399 | 70,5 - 121 | 55 | 130 |
|     | 123 - 327  | 40 | 120 |
| 409 | 85,2 - 146 | 55 | 130 |
|     | 149 - 396  | 40 | 120 |

## 5.2 WEIGHTS

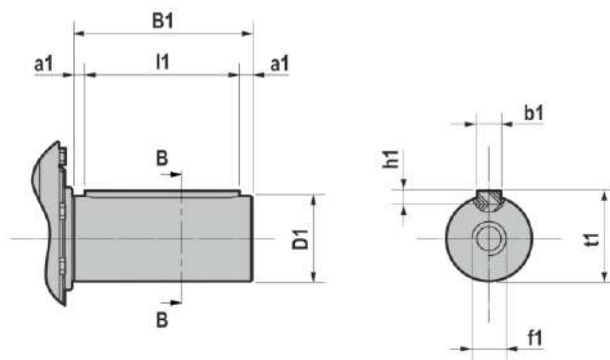
The values reported in the tables are referred to the weight of the gearbox without lubricant.

| PZ  | [- kg] |      |      |
|-----|--------|------|------|
|     | P2Z    | P3Z  | P4Z  |
| 179 | 260    | 280  | -    |
| 199 | 330    | 350  | -    |
| 219 | 510    | 550  | 560  |
| 249 | 580    | 620  | 630  |
| 269 | 740    | 820  | 835  |
| 279 | 940    | 1000 | 1020 |
| 319 | 1200   | 1300 | 1315 |
| 349 | 1620   | 1710 | 1740 |
| 399 | 2510   | 2710 | 2760 |
| 409 | 2750   | 2950 | 3030 |

| BZ  | [- kg] |      |
|-----|--------|------|
|     | B3Z    | B4Z  |
| 179 | 270    | -    |
| 199 | 340    | -    |
| 219 | 530    | 570  |
| 249 | 600    | 640  |
| 269 | 770    | 850  |
| 279 | 970    | 1035 |
| 319 | 1240   | 1340 |
| 349 | 1670   | 1765 |
| 399 | 2700   | 2800 |
| 409 | 3060   | 3100 |

## 5.3 SHAFT END

## 5.3.1 Input shaft end

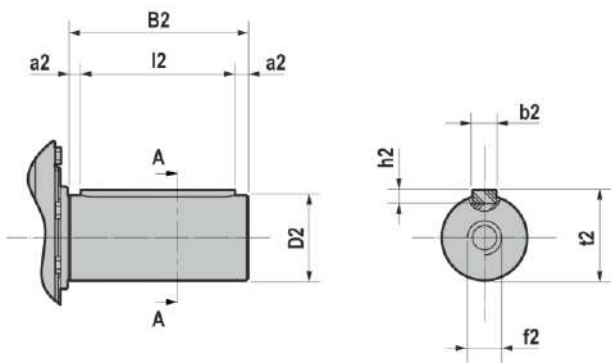


| D1     | B1  | b1 | t1   | f1  | b1xh1xl1  | a1   |
|--------|-----|----|------|-----|-----------|------|
| 25 k6  | 70  | 8  | 28   | M10 | 8x7x60    | 5    |
| 25 k6  | 80  | 8  | 28   | M10 | 8x7x70    | 5    |
| 28 k6  | 80  | 8  | 31   | M10 | 8x7x70    | 5    |
| 30 k6  | 80  | 8  | 33   | M10 | 8x7x70    | 5    |
| 30 k6  | 90  | 8  | 33   | M10 | 8x7x80    | 5    |
| 35 k6  | 80  | 10 | 38   | M12 | 10x8x70   | 5    |
| 35 k6  | 90  | 10 | 38   | M12 | 10x8x80   | 5    |
| 35 k6  | 100 | 10 | 38   | M12 | 10x8x90   | 5    |
| 35 k6  | 110 | 10 | 38   | M12 | 10x8x100  | 5    |
| 40 k6  | 80  | 12 | 43   | M16 | 12x8x70   | 5    |
| 40 k6  | 100 | 12 | 43   | M16 | 12x8x90   | 5    |
| 40 k6  | 120 | 12 | 43   | M16 | 12x8x100  | 10   |
| 45 k6  | 90  | 14 | 48,5 | M16 | 14x9x80   | 5    |
| 45 k6  | 100 | 14 | 48,5 | M16 | 14x9x90   | 5    |
| 45 k6  | 110 | 14 | 48,5 | M16 | 14x9x100  | 5    |
| 45 k6  | 130 | 14 | 48,5 | M16 | 14x9x110  | 10   |
| 50 k6  | 110 | 14 | 53,5 | M16 | 14x9x100  | 5    |
| 50 k6  | 130 | 14 | 53,5 | M16 | 14x9x110  | 10   |
| 50 k6  | 140 | 14 | 53,5 | M16 | 14x9x120  | 10   |
| 55 m6  | 100 | 16 | 59   | M20 | 16x10x90  | 5    |
| 55 m6  | 120 | 16 | 59   | M20 | 16x10x100 | 10   |
| 55 m6  | 130 | 16 | 59   | M20 | 16x10x110 | 10   |
| 60 m6  | 140 | 18 | 64   | M20 | 18x11x120 | 10   |
| 65 m6  | 120 | 18 | 69   | M20 | 18x11x100 | 10   |
| 65 m6  | 140 | 18 | 69   | M20 | 18x11x120 | 10   |
| 70 m6  | 130 | 20 | 74,5 | M20 | 20x12x110 | 10   |
| 70 m6  | 140 | 20 | 74,5 | M20 | 20x12x120 | 10   |
| 70 m6  | 160 | 20 | 74,5 | M20 | 20x12x130 | 15   |
| 80 m6  | 140 | 22 | 85   | M20 | 22x14x120 | 10   |
| 80 m6  | 160 | 22 | 85   | M20 | 22x14x130 | 15   |
| 80 m6  | 165 | 22 | 85   | M20 | 22x14x140 | 12,5 |
| 85 m6  | 170 | 22 | 90   | M20 | 22x14x140 | 15   |
| 95 m6  | 160 | 25 | 100  | M24 | 25x14x130 | 15   |
| 100 m6 | 205 | 28 | 106  | M24 | 28x16x170 | 17,5 |

5.3 SHAFT END

5.3.2 Output shaft end

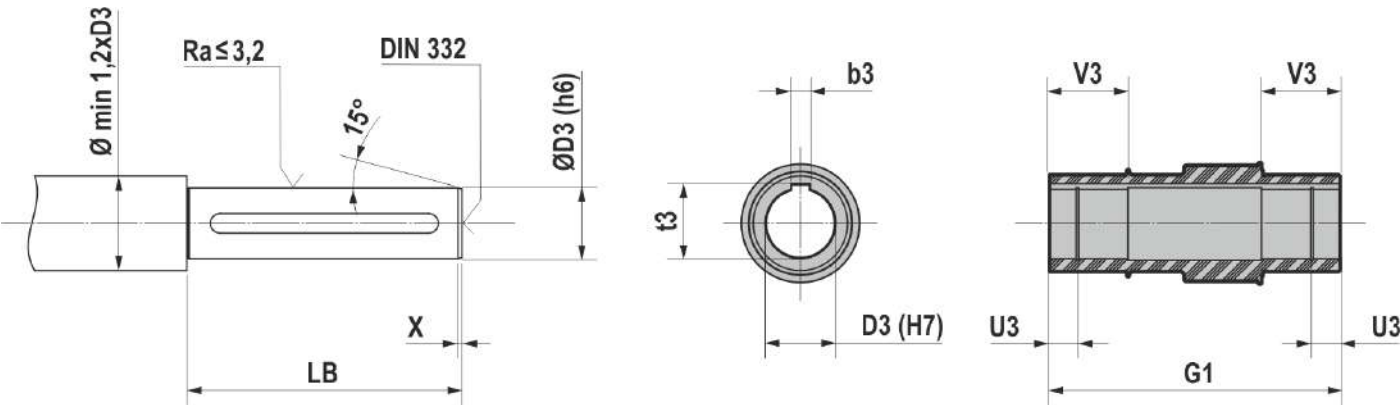
PBZ



| PZ-BZ | D2 (m6) | B2  | b2 | t2  | f2  | b2xh2xl2  | a2 |
|-------|---------|-----|----|-----|-----|-----------|----|
| 179   | 100     | 210 | 28 | 106 | M24 | 28x16x180 | 15 |
| 199   | 110     | 210 | 28 | 116 | M24 | 28x16x180 | 15 |
| 219   | 120     | 210 | 32 | 127 | M24 | 32x18x180 | 15 |
| 249   | 130     | 250 | 32 | 137 | M24 | 32x18x200 | 25 |
| 269   | 140     | 250 | 36 | 148 | M30 | 36x20x200 | 25 |
| 279   | 160     | 300 | 40 | 169 | M30 | 40x22x240 | 30 |
| 319   | 170     | 300 | 40 | 179 | M30 | 40x22x240 | 30 |
| 349   | 180     | 300 | 45 | 191 | M30 | 45x25x240 | 30 |
| 399   | 200     | 350 | 45 | 211 | M30 | 45x25x270 | 40 |
| 409   | 220     | 350 | 50 | 231 | M30 | 50x25x270 | 40 |

Dimension also valid for double output shaft version.

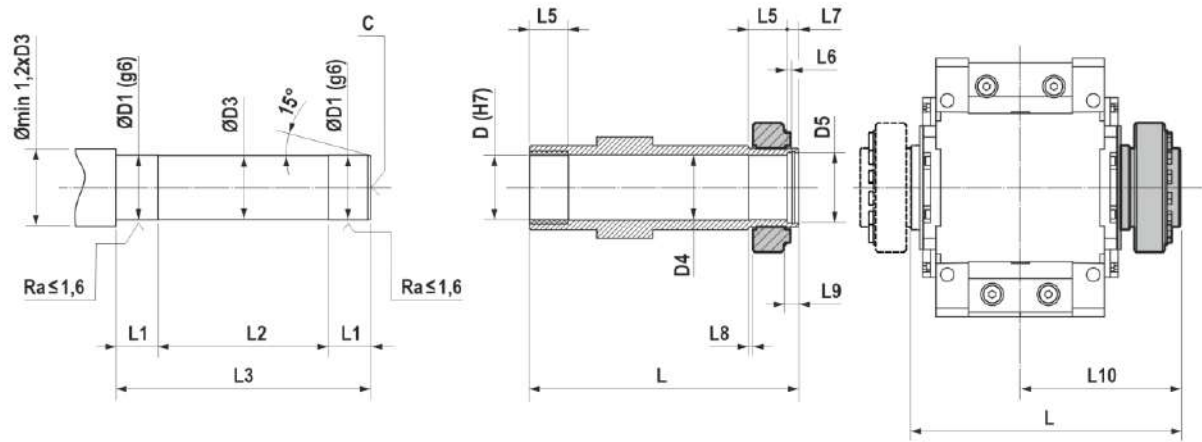
6.1.1 Hollow output shaft with keyway



| PZ - BZ | D3<br>(H7/h6) | b3 | t3    | G1  | U3 | V3  | LB  | X |
|---------|---------------|----|-------|-----|----|-----|-----|---|
| 179     | 95            | 25 | 100,4 | 330 | 12 | 110 | 301 | 5 |
| 199     | 105           | 28 | 111,4 | 330 | 12 | 110 | 301 | 5 |
| 219     | 115           | 32 | 122,4 | 390 | 12 | 130 | 361 | 5 |
| 249     | 125           | 32 | 132,4 | 390 | 12 | 130 | 361 | 5 |
| 269     | 135           | 36 | 143,4 | 470 | 15 | 160 | 436 | 6 |
| 279     | 150           | 36 | 158,4 | 470 | 15 | 160 | 436 | 6 |
| 319     | 165           | 40 | 174,4 | 540 | 15 | 180 | 505 | 7 |
| 349     | 180           | 45 | 190,4 | 540 | 15 | 180 | 505 | 7 |
| 399     | 190           | 45 | 200,4 | 670 | 20 | 220 | 626 | 8 |
| 409     | 210           | 50 | 221,4 | 670 | 20 | 220 | 626 | 8 |

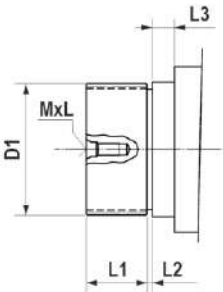
6.1.2 Hollow output shaft with shrink disc

Clean and degrease the surfaces of the shaft to be fitted to. Comply with the indicated tightening torque of screws (  $M_T$  ).



| PZ-BZ | D (H7) | D1 (g6) | D2  | D3  | D4  | D5  | L   | L1  | L2  | L3  | L5  | L6   | L7   | L8 | L9 | L10   | C   | M <sub>T</sub> 10.9 [Nm] |
|-------|--------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|----|----|-------|-----|--------------------------|
| 179   | 95     | 95      | 114 | 94  | 96  | 105 | 409 | 60  | 263 | 383 | 55  | 8,5  | 20,5 | 6  | 20 | 244   | M24 | 59                       |
| 199   | 105    | 105     | 126 | 104 | 106 | 115 | 414 | 65  | 258 | 388 | 60  | 8,5  | 20,5 | 6  | 20 | 249   | M24 | 100                      |
| 219   | 115    | 115     | 138 | 114 | 116 | 125 | 480 | 75  | 304 | 454 | 70  | 85   | 20,5 | 8  | 23 | 285   | M24 | 100                      |
| 249   | 125    | 125     | 150 | 124 | 126 | 135 | 483 | 80  | 297 | 457 | 75  | 8,5  | 20,5 | 8  | 23 | 288   | M24 | 100                      |
| 269   | 135    | 135     | 162 | 134 | 136 | 145 | 574 | 95  | 355 | 545 | 85  | 10,5 | 23,5 | 8  | 28 | 339   | M30 | 100                      |
| 279   | 150    | 150     | 180 | 149 | 151 | 160 | 591 | 105 | 352 | 562 | 95  | 10,5 | 23,5 | 8  | 28 | 354,5 | M30 | 100                      |
| 319   | 165    | 165     | 198 | 164 | 166 | 175 | 684 | 115 | 425 | 655 | 105 | 10,5 | 23,5 | -  | 30 | 414   | M30 | 250                      |
| 349   | 180    | 180     | 216 | 179 | 181 | 190 | 689 | 135 | 389 | 659 | 125 | 10,5 | 23,5 | 10 | 30 | 419   | M30 | 490                      |
| 399   | 190    | 190     | 228 | 189 | 191 | 200 | 839 | 140 | 514 | 804 | 130 | 12,5 | 27,5 | -  | 30 | 504   | M30 | 490                      |
| 409   | 210    | 210     | 252 | 209 | 211 | 220 | 850 | 140 | 534 | 814 | 130 | 12,5 | 27,5 | 12 | 36 | 515   | M30 | 490                      |

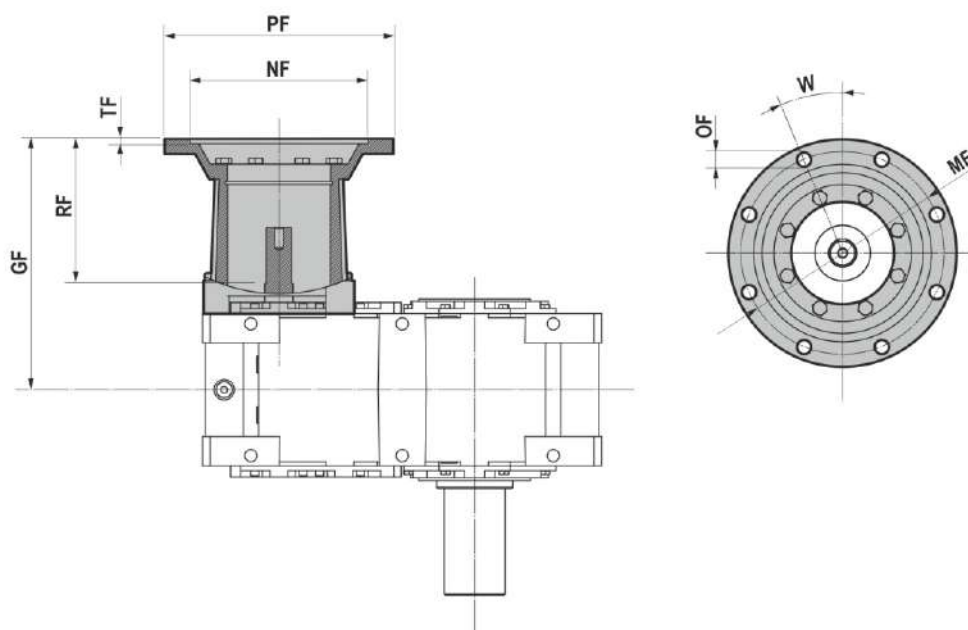
6.1.3 Splined output shaft



| PBZ | D1<br>(DIN5480) | L1  | L2 | L3 | MxL    |
|-----|-----------------|-----|----|----|--------|
| 179 | N100x4x30x24x9H | 70  | 8  | 20 | M24x52 |
| 199 | N110x4x30x26x9H | 70  | 8  | 20 | M24x52 |
| 219 | N120x4x30x28x9H | 75  | 8  | 20 | M24x52 |
| 249 | N130x4x30x31x9H | 85  | 10 | 30 | M24x52 |
| 269 | N130x4x30x31x9H | 85  | 10 | 30 | M24x52 |
| 279 | N150x4x30x36x9H | 110 | 12 | 38 | M30x67 |
| 319 | N150x4x30x36x9H | 110 | 12 | 38 | M30x67 |
| 349 | N180x5x30x34x9H | 138 | 12 | 30 | M30x67 |
| 399 | N200x8x30x24x9H | 150 | 14 | 36 | M30x67 |
| 409 | N200x8x30x24x9H | 150 | 14 | 36 | M30x67 |

## 6.2 INPUT FLANGES

## 6.2.1 Motor mounting flanges - PZ



| P2Z | IEC (B5) | i           | PF  | MF  | NF H7 | GF    | TF | RF    | OF        | W      |
|-----|----------|-------------|-----|-----|-------|-------|----|-------|-----------|--------|
| 179 | 180      | 16,8 - 20,9 | 350 | 300 | 250   | 412,5 | 8  | 217,5 | 19 (n° 4) | 45°    |
|     | 200      | 13,7 - 20,9 | 400 | 350 | 300   | 412,5 | 7  | 217,5 | 19 (n° 4) | 45°    |
|     | 225      | 9,64 - 19,2 | 450 | 400 | 350   | 442,5 | 8  | 247,5 | 19 (n° 8) | 22°30' |
|     | 250      | 6,37 - 15,6 | 550 | 500 | 450   | 442,5 | 8  | 247,5 | 19 (n° 8) | 22°30' |
| 199 | 180      | 20,9 - 26,0 | 350 | 300 | 250   | 412,5 | 8  | 217,5 | 19 (n° 4) | 45°    |
|     | 200      | 17,0 - 26,0 | 400 | 350 | 300   | 412,5 | 7  | 217,5 | 19 (n° 4) | 45°    |
|     | 225      | 12,0 - 22,6 | 450 | 400 | 350   | 442,5 | 8  | 247,5 | 19 (n° 8) | 22°30' |
|     | 250      | 7,91 - 19,3 | 550 | 500 | 450   | 442,5 | 8  | 315   | 19 (n° 8) | 22°30' |
| 219 | 225      | 16,1 - 18,9 | 450 | 400 | 350   | 495   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 250      | 12,7 - 18,9 | 550 | 500 | 450   | 495   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 280      | 6,28 - 17,4 | 550 | 500 | 450   | 495   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 315      | 6,28 - 14,7 | 660 | 600 | 550   | 495   | 8  | 315   | 19 (n° 8) | 22°30' |
| 249 | 225      | 20,4 - 24,0 | 450 | 400 | 350   | 495   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 250      | 18,6 - 24,0 | 550 | 500 | 450   | 495   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 280      | 7,96 - 22,1 | 550 | 500 | 450   | 495   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 315      | 7,96 - 18,6 | 660 | 600 | 550   | 525   | 8  | 315   | 19 (n° 8) | 22°30' |
| 269 | 280      | 14,2 - 20,7 | 550 | 500 | 450   | 525   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 315      | 6,44 - 18,9 | 660 | 600 | 550   | 555   | 8  | 315   | 24 (n° 8) | 22°30' |
| 279 | 280      | 17,5 - 25,6 | 550 | 500 | 450   | 525   | 8  | 285   | 19 (n° 8) | 22°30' |
|     | 315      | 7,96 - 23,4 | 660 | 600 | 550   | 555   | 8  | 315   | 24 (n° 8) | 22°30' |
| 319 | 315      | 6,33 - 20,5 | 660 | 600 | 550   | 610   | 8  | 335   | 24 (n° 8) | 22°30' |
| 349 | 315      | 8,14 - 26,3 | 660 | 600 | 550   | 610   | 8  | 335   | 24 (n° 8) | 22°30' |

6.2 INPUT FLANGES

PBZ

| P3Z | IEC (B5) | i           | PF  | MF  | NF H7 | GF    | TF | RF    | OF        | W      |
|-----|----------|-------------|-----|-----|-------|-------|----|-------|-----------|--------|
| 179 | 132      | 51,4 - 86,2 | 300 | 265 | 230   | 342,5 | 8  | 182,5 | 19 (n° 4) | 45°    |
|     | 160      | 28,0 - 79,8 | 350 | 300 | 250   | 357,5 | 8  | 197,5 | 19 (n° 4) | 45°    |
|     | 180      | 24,5 - 51,4 | 350 | 300 | 250   | 357,5 | 8  | 197,5 | 19 (n° 4) | 45°    |
|     | 200      | 24,5 - 32,1 | 400 | 350 | 300   | 357,5 | 7  | 197,5 | 19 (n° 4) | 45°    |
|     | 225      | 24,5 - 28,0 | 450 | 400 | 350   | 385,5 | 8  | 225,5 | 19 (n° 8) | 22°30' |
|     | 250      | 24,5 - 28,0 | 550 | 500 | 450   | 387,5 | 8  | 227,5 | 19 (n° 8) | 22°30' |
| 199 | 132      | 63,9 - 107  | 300 | 265 | 230   | 342,5 | 8  | 182,5 | 19 (n° 4) | 45°    |
|     | 160      | 34,8 - 99,1 | 350 | 300 | 250   | 357,5 | 8  | 197,5 | 19 (n° 4) | 45°    |
|     | 180      | 30,5 - 57,7 | 350 | 300 | 250   | 357,5 | 8  | 197,5 | 19 (n° 4) | 45°    |
|     | 200      | 30,5 - 39,8 | 400 | 350 | 300   | 357,5 | 7  | 197,5 | 19 (n° 4) | 45°    |
|     | 225      | 30,5 - 34,8 | 450 | 400 | 350   | 385,5 | 8  | 225,5 | 19 (n° 8) | 22°30' |
|     | 250      | 30,5        | 550 | 500 | 450   | 387,5 | 8  | 227,5 | 19 (n° 8) | 22°30' |
| 219 | 160      | 57,8 - 81,3 | 350 | 300 | 250   | 400   | 8  | 215   | 19 (n° 4) | 45°    |
|     | 180      | 38,3 - 81,3 | 350 | 300 | 250   | 400   | 8  | 215   | 19 (n° 4) | 45°    |
|     | 200      | 28,7 - 62,7 | 400 | 350 | 300   | 400   | 7  | 215   | 19 (n° 4) | 45°    |
|     | 225      | 22,6 - 41,5 | 450 | 400 | 350   | 428   | 8  | 243   | 19 (n° 8) | 22°30' |
|     | 250      | 22,6 - 33,0 | 550 | 500 | 450   | 430   | 8  | 245   | 19 (n° 8) | 22°30' |
| 249 | 160      | 73,3 - 103  | 350 | 300 | 250   | 400   | 8  | 215   | 19 (n° 4) | 45°    |
|     | 180      | 48,6 - 103  | 350 | 300 | 250   | 400   | 8  | 215   | 19 (n° 4) | 45°    |
|     | 200      | 36,4 - 79,4 | 400 | 350 | 300   | 400   | 7  | 215   | 19 (n° 4) | 45°    |
|     | 225      | 28,6 - 63,1 | 450 | 400 | 350   | 428   | 8  | 243   | 19 (n° 8) | 22°30' |
|     | 250      | 28,6 - 41,9 | 550 | 500 | 450   | 430   | 8  | 245   | 19 (n° 8) | 22°30' |
| 269 | 180      | 61,2 - 82,3 | 350 | 300 | 250   | 470   | 8  | 240   | 19 (n° 4) | 45°    |
|     | 200      | 41,1 - 82,3 | 400 | 350 | 300   | 470   | 7  | 240   | 19 (n° 4) | 45°    |
|     | 225      | 28,1 - 71,5 | 450 | 400 | 350   | 500   | 8  | 270   | 19 (n° 8) | 22°30' |
|     | 250      | 25,1 - 53,9 | 550 | 500 | 450   | 500   | 8  | 270   | 19 (n° 8) | 22°30' |
|     | 280      | 25,1 - 37,9 | 550 | 500 | 450   | 500   | 8  | 270   | 19 (n° 8) | 22°30' |
|     | 315      | 25,1 - 28,1 | 660 | 600 | 550   | 530   | 8  | 300   | 24 (n° 8) | 22°30' |
| 279 | 180      | 75,7 - 102  | 350 | 300 | 250   | 470   | 8  | 240   | 19 (n° 4) | 45°    |
|     | 200      | 50,9 - 102  | 400 | 350 | 300   | 470   | 7  | 240   | 19 (n° 4) | 45°    |
|     | 225      | 34,8 - 88,5 | 450 | 400 | 350   | 500   | 8  | 270   | 19 (n° 8) | 22°30' |
|     | 250      | 31,0 - 66,6 | 550 | 500 | 450   | 500   | 8  | 270   | 19 (n° 8) | 22°30' |
|     | 280      | 31,0 - 46,9 | 550 | 500 | 450   | 500   | 8  | 270   | 19 (n° 8) | 22°30' |
|     | 315      | 31,0 - 34,8 | 660 | 600 | 550   | 530   | 8  | 300   | 24 (n° 8) | 22°30' |
| 319 | 225      | 56,8 - 73,2 | 450 | 400 | 350   | 560   | 8  | 305   | 19 (n° 8) | 22°30' |
|     | 250      | 42,4 - 73,2 | 550 | 500 | 450   | 580   | 8  | 305   | 19 (n° 8) | 22°30' |
|     | 280      | 28,2 - 67,4 | 550 | 500 | 450   | 580   | 8  | 305   | 19 (n° 8) | 22°30' |
|     | 315      | 24,3 - 49,1 | 660 | 600 | 550   | 590   | 8  | 335   | 24 (n° 8) | 22°30' |
| 349 | 225      | 73,0 - 94,1 | 450 | 400 | 350   | 560   | 8  | 305   | 19 (n° 8) | 22°30' |
|     | 250      | 54,5 - 94,1 | 550 | 500 | 450   | 580   | 8  | 305   | 19 (n° 8) | 22°30' |
|     | 280      | 36,2 - 86,6 | 550 | 500 | 450   | 580   | 8  | 305   | 19 (n° 8) | 22°30' |
|     | 315      | 31,2 - 63,1 | 660 | 600 | 550   | 590   | 8  | 335   | 24 (n° 8) | 22°30' |

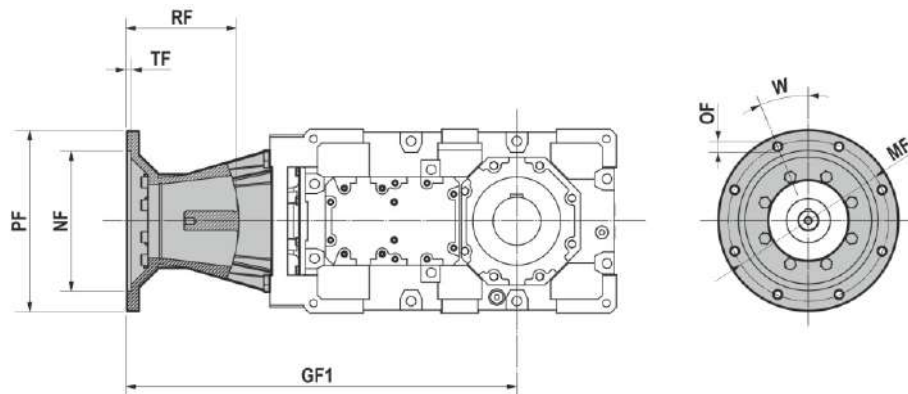
## 6.2 INPUT FLANGES

| P4Z | IEC (B5) | i           | PF  | MF  | NF H7 | GF  | TF | RF  | OF        | W      |
|-----|----------|-------------|-----|-----|-------|-----|----|-----|-----------|--------|
| 219 | 132      | 121 - 318   | 300 | 265 | 230   | 360 | 8  | 180 | 19 (n° 4) | 45°    |
|     | 160      | 87,8 - 188  | 350 | 300 | 250   | 375 | 8  | 195 | 19 (n° 4) | 45°    |
|     | 180      | 87,8 - 106  | 350 | 300 | 250   | 375 | 8  | 195 | 19 (n° 4) | 45°    |
| 249 | 132      | 134 - 403   | 300 | 265 | 230   | 360 | 8  | 180 | 19 (n° 4) | 45°    |
|     | 160      | 111 - 204   | 350 | 300 | 250   | 375 | 8  | 195 | 19 (n° 4) | 45°    |
|     | 180      | 111 - 134   | 350 | 300 | 250   | 375 | 8  | 195 | 19 (n° 4) | 45°    |
| 269 | 132      | 169 - 339   | 300 | 265 | 230   | 400 | 8  | 185 | 19 (n° 4) | 45°    |
|     | 160      | 96,5 - 291  | 350 | 300 | 250   | 415 | 8  | 200 | 19 (n° 4) | 45°    |
|     | 180      | 96,5 - 169  | 350 | 300 | 250   | 415 | 8  | 200 | 19 (n° 4) | 45°    |
|     | 200      | 96,5 - 110  | 400 | 350 | 300   | 415 | 7  | 200 | 19 (n° 4) | 45°    |
|     | 225      | 96,53       | 450 | 400 | 350   | 443 | 8  | 228 | 19 (n° 8) | 22°30' |
| 279 | 132      | 209 - 419   | 300 | 265 | 230   | 400 | 8  | 185 | 19 (n° 4) | 45°    |
|     | 160      | 119 - 332   | 350 | 300 | 250   | 415 | 8  | 200 | 19 (n° 4) | 45°    |
|     | 180      | 119 - 209   | 350 | 300 | 250   | 415 | 8  | 200 | 19 (n° 4) | 45°    |
|     | 200      | 119 - 136   | 400 | 350 | 300   | 415 | 7  | 200 | 19 (n° 4) | 45°    |
|     | 225      | 119         | 450 | 400 | 350   | 443 | 8  | 228 | 19 (n° 8) | 22°30' |
| 319 | 160      | 160 - 314   | 350 | 300 | 250   | 455 | 8  | 205 | 19 (n° 4) | 45°    |
|     | 180      | 111 - 314   | 350 | 300 | 250   | 455 | 8  | 205 | 19 (n° 4) | 45°    |
|     | 200      | 87,4 - 160  | 400 | 350 | 300   | 455 | 7  | 205 | 19 (n° 4) | 45°    |
|     | 225      | 87,4 - 148  | 450 | 400 | 350   | 483 | 8  | 233 | 19 (n° 8) | 22°30' |
|     | 250      | 87,4 - 97,0 | 550 | 500 | 450   | 485 | 8  | 235 | 19 (n° 8) | 22°30' |
| 349 | 160      | 206 - 404   | 350 | 300 | 250   | 455 | 8  | 205 | 19 (n° 4) | 45°    |
|     | 180      | 143 - 374   | 350 | 300 | 250   | 455 | 8  | 205 | 19 (n° 4) | 45°    |
|     | 200      | 112 - 247   | 400 | 350 | 300   | 455 | 8  | 205 | 19 (n° 4) | 45°    |
|     | 225      | 112 - 191   | 450 | 400 | 350   | 483 | 8  | 233 | 19 (n° 8) | 22°30' |
|     | 250      | 112 - 125   | 550 | 500 | 450   | 485 | 8  | 235 | 19 (n° 8) | 22°30' |

|         | [-kg]    |     |     |     |     |     |     |     |
|---------|----------|-----|-----|-----|-----|-----|-----|-----|
|         | IEC (B5) |     |     |     |     |     |     |     |
| PZ      | 132      | 160 | 180 | 200 | 225 | 250 | 280 | 315 |
| P2Z 179 | -        | -   | 42  | 51  | 57  | 82  | -   | -   |
| P3Z 179 | 38       | 39  | 39  | 48  | 54  | 79  | -   | -   |
| P2Z 199 | -        | -   | 39  | 48  | 54  | 79  | -   | -   |
| P3Z 199 | 38       | 39  | 39  | 48  | 54  | 79  | -   | -   |
| P2Z 219 | -        | -   | -   | -   | 80  | 104 | 112 | 152 |
| P3Z 219 | -        | 64  | 64  | 68  | 80  | 104 | -   | -   |
| P4Z 219 | 48       | 49  | 49  | -   | -   | -   | -   | -   |
| P2Z 249 | -        | -   | -   | -   | 65  | 89  | 97  | 137 |
| P3Z 249 | -        | 49  | 49  | 53  | 65  | 89  | -   | -   |
| P4Z 249 | 55       | 56  | 56  | -   | -   | -   | -   | -   |
| P2Z 269 | -        | -   | -   | -   | -   | -   | 117 | 157 |
| P3Z 269 | -        | -   | 69  | 73  | 85  | 109 | 117 | 157 |
| P4Z 269 | 53       | 54  | 54  | 58  | 70  | -   | -   | -   |
| P2Z 279 | -        | -   | -   | -   | -   | -   | 102 | 142 |
| P3Z 279 | -        | -   | 44  | 48  | 60  | 84  | 92  | 132 |
| P4Z 279 | 63       | 64  | 64  | 68  | 80  | -   | -   | -   |
| P2Z 319 | -        | -   | -   | -   | -   | -   | -   | 163 |
| P3Z 319 | -        | -   | -   | -   | 91  | 112 | 123 | 163 |
| P4Z 319 | -        | 51  | 51  | 55  | 67  | 88  | -   | -   |
| P2Z 349 | -        | -   | -   | -   | -   | -   | -   | 139 |
| P3Z 349 | -        | -   | -   | -   | 67  | 88  | 99  | 139 |
| P4Z 349 | -        | 51  | 51  | 55  | 67  | 88  | -   | -   |

## 6.2 INPUT FLANGES

## 6.2.2 Motor mounting flanges - BZ



| B3Z | IEC (B5) | i           | PF  | MF  | NF H7 | GF1  | TF | RF  | OF        | W      |
|-----|----------|-------------|-----|-----|-------|------|----|-----|-----------|--------|
| 179 | 132      | 60.6 - 69.8 | 300 | 265 | 230   | 785  | 8  | 200 | 15 (n° 4) | 45°    |
|     | 160      | 32.4 - 69.8 | 350 | 300 | 250   | 800  | 8  | 215 | 19 (n° 4) | 45°    |
|     | 180      | 21.8 - 56.0 | 350 | 300 | 250   | 800  | 8  | 215 | 19 (n° 4) | 45°    |
|     | 200      | 13.3 - 35.0 | 400 | 350 | 300   | 800  | 7  | 215 | 19 (n° 4) | 45°    |
|     | 225      | 13.3 - 28.5 | 450 | 400 | 350   | 828  | 8  | 245 | 19 (n° 8) | 22°30' |
|     | 250      | 13.3 - 16.8 | 550 | 500 | 450   | 830  | 8  | 245 | 19 (n° 8) | 22°30' |
| 199 | 132      | 75.3 - 86.6 | 300 | 265 | 230   | 820  | 8  | 200 | 15 (n° 4) | 45°    |
|     | 160      | 40.3 - 86.6 | 350 | 300 | 250   | 835  | 8  | 215 | 19 (n° 4) | 45°    |
|     | 180      | 25.0 - 75.3 | 350 | 300 | 250   | 835  | 8  | 215 | 19 (n° 4) | 45°    |
|     | 200      | 16.5 - 43.5 | 400 | 350 | 300   | 835  | 7  | 215 | 19 (n° 4) | 45°    |
|     | 225      | 16.5 - 35.4 | 450 | 400 | 350   | 863  | 8  | 245 | 19 (n° 8) | 22°30' |
|     | 250      | 16.5 - 20.9 | 550 | 500 | 450   | 865  | 8  | 245 | 19 (n° 8) | 22°30' |
| 219 | 160      | 53.7 - 58.4 | 350 | 300 | 250   | 950  | 8  | 245 | 19 (n° 4) | 45°    |
|     | 180      | 30.9 - 58.4 | 350 | 300 | 250   | 950  | 8  | 245 | 19 (n° 4) | 45°    |
|     | 200      | 24.3 - 58.4 | 400 | 350 | 300   | 950  | 7  | 245 | 19 (n° 4) | 45°    |
|     | 225      | 14.0 - 49.6 | 450 | 400 | 350   | 978  | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 250      | 12.0 - 28.2 | 550 | 500 | 450   | 980  | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 160      | 68.1 - 74.0 | 350 | 300 | 250   | 995  | 8  | 245 | 19 (n° 4) | 45°    |
| 249 | 180      | 39.2 - 74.0 | 350 | 300 | 250   | 995  | 8  | 245 | 19 (n° 4) | 45°    |
|     | 200      | 35.7 - 74.0 | 400 | 350 | 300   | 995  | 7  | 245 | 19 (n° 4) | 45°    |
|     | 225      | 17.7 - 62.9 | 450 | 400 | 350   | 1023 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 250      | 15.3 - 35.7 | 550 | 500 | 450   | 1025 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 180      | 58.2 - 63.7 | 350 | 300 | 250   | 1060 | 8  | 245 | 19 (n° 4) | 45°    |
|     | 200      | 50.1 - 63.7 | 400 | 350 | 300   | 1060 | 7  | 245 | 19 (n° 4) | 45°    |
| 269 | 225      | 34.4 - 63.7 | 450 | 400 | 350   | 1090 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 250      | 27.1 - 58.2 | 550 | 500 | 450   | 1090 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 280      | 12.3 - 43.7 | 550 | 500 | 450   | 1090 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 315      | 12.3 - 31.2 | 660 | 600 | 550   | 1120 | 8  | 305 | 24 (n° 8) | 22°30' |
|     | 180      | 72.0 - 78.8 | 350 | 300 | 250   | 1105 | 8  | 245 | 19 (n° 4) | 45°    |
|     | 200      | 42.5 - 78.8 | 400 | 350 | 300   | 1105 | 7  | 245 | 19 (n° 4) | 45°    |
| 279 | 225      | 42.5 - 78.8 | 450 | 400 | 350   | 1135 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 250      | 33.6 - 72.0 | 550 | 500 | 450   | 1135 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 280      | 15.3 - 54.0 | 550 | 500 | 450   | 1135 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 315      | 15.3 - 38.6 | 660 | 600 | 550   | 1165 | 8  | 305 | 24 (n° 8) | 22°30' |
|     | 225      | 55.3 - 59.7 | 450 | 400 | 350   | 1275 | 8  | 305 | 19 (n° 8) | 22°30' |
|     | 250      | 38.8 - 59.7 | 550 | 500 | 450   | 1275 | 8  | 305 | 19 (n° 8) | 22°30' |
| 319 | 280      | 29.7 - 59.7 | 550 | 500 | 450   | 1275 | 8  | 305 | 19 (n° 8) | 22°30' |
|     | 315      | 12.1 - 48.8 | 660 | 600 | 550   | 1305 | 8  | 335 | 24 (n° 8) | 22°30' |
|     | 225      | 71.1 - 76.8 | 450 | 400 | 350   | 1345 | 8  | 305 | 19 (n° 8) | 22°30' |
| 349 | 250      | 49.8 - 76.8 | 550 | 500 | 450   | 1345 | 8  | 305 | 19 (n° 8) | 22°30' |
|     | 280      | 38.2 - 76.8 | 550 | 500 | 450   | 1345 | 8  | 305 | 19 (n° 8) | 22°30' |
|     | 315      | 15.6 - 62.8 | 660 | 600 | 550   | 1375 | 8  | 335 | 24 (n° 8) | 22°30' |

## 6.2 INPUT FLANGES

| B4Z | IEC (B5) | i           | PF  | MF  | NF H7 | GF1  | TF | RF  | OF        | W      |
|-----|----------|-------------|-----|-----|-------|------|----|-----|-----------|--------|
| 219 | 132      | 128 - 323   | 300 | 265 | 230   | 925  | 8  | 190 | 15 (n° 4) | 45°    |
|     | 160      | 70.3 - 193  | 350 | 300 | 250   | 940  | 8  | 205 | 19 (n° 4) | 45°    |
|     | 180      | 60.6 - 115  | 350 | 300 | 250   | 940  | 8  | 205 | 19 (n° 4) | 45°    |
| 249 | 132      | 162 - 410   | 300 | 265 | 230   | 970  | 8  | 190 | 15 (n° 4) | 45°    |
|     | 160      | 89.1 - 245  | 350 | 300 | 250   | 985  | 8  | 205 | 19 (n° 4) | 45°    |
|     | 180      | 76.8 - 146  | 350 | 300 | 250   | 985  | 8  | 205 | 19 (n° 4) | 45°    |
| 269 | 132      | 204 - 348   | 300 | 265 | 230   | 1055 | 8  | 200 | 15 (n° 4) | 45°    |
|     | 160      | 112 - 292   | 350 | 300 | 250   | 1070 | 8  | 215 | 19 (n° 4) | 45°    |
|     | 180      | 79.0 - 204  | 350 | 300 | 250   | 1070 | 8  | 215 | 19 (n° 4) | 45°    |
|     | 200      | 79.0 - 112  | 400 | 350 | 300   | 1070 | 7  | 215 | 19 (n° 4) | 45°    |
|     | 225      | 79.0 - 93.1 | 450 | 400 | 350   | 1098 | 8  | 245 | 19 (n° 8) | 22°30' |
| 279 | 132      | 252 - 431   | 300 | 265 | 230   | 1100 | 8  | 200 | 15 (n° 4) | 45°    |
|     | 160      | 139 - 362   | 350 | 300 | 250   | 1115 | 8  | 215 | 19 (n° 4) | 45°    |
|     | 180      | 97.8 - 252  | 350 | 300 | 250   | 1115 | 8  | 215 | 19 (n° 4) | 45°    |
|     | 200      | 97.8 - 139  | 400 | 350 | 300   | 1115 | 7  | 215 | 19 (n° 4) | 45°    |
|     | 225      | 97.8 - 115  | 450 | 400 | 350   | 1143 | 8  | 245 | 19 (n° 8) | 22°30' |
| 319 | 160      | 188 - 320   | 350 | 300 | 250   | 1270 | 8  | 245 | 19 (n° 4) | 45°    |
|     | 180      | 120 - 320   | 350 | 300 | 250   | 1270 | 8  | 245 | 19 (n° 4) | 45°    |
|     | 200      | 94.1 - 223  | 400 | 350 | 300   | 1270 | 7  | 245 | 19 (n° 4) | 45°    |
|     | 225      | 63 - 151    | 450 | 400 | 350   | 1368 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 250      | 63 - 109    | 550 | 500 | 450   | 1370 | 8  | 275 | 19 (n° 8) | 22°30' |
| 349 | 160      | 242 - 412   | 350 | 300 | 250   | 1340 | 8  | 245 | 19 (n° 4) | 45°    |
|     | 180      | 154 - 412   | 350 | 300 | 250   | 1340 | 8  | 245 | 19 (n° 4) | 45°    |
|     | 200      | 121 - 242   | 400 | 350 | 300   | 1340 | 7  | 245 | 19 (n° 4) | 45°    |
|     | 225      | 81.0 - 195  | 450 | 400 | 350   | 1438 | 8  | 275 | 19 (n° 8) | 22°30' |
|     | 250      | 81.0 - 140  | 550 | 500 | 450   | 1440 | 8  | 275 | 19 (n° 8) | 22°30' |

|         | [-kg]    |     |     |     |     |     |     |     |
|---------|----------|-----|-----|-----|-----|-----|-----|-----|
|         | IEC (B5) |     |     |     |     |     |     |     |
| BZ      | 132      | 160 | 180 | 200 | 225 | 250 | 280 | 315 |
| B3Z 179 | 63       | 64  | 64  | 73  | 79  | 104 | -   | -   |
| B3Z 199 | 98       | 99  | 99  | 108 | 114 | 139 | -   | -   |
| B3Z 219 | -        | 74  | 74  | 78  | 90  | 114 | -   | -   |
| B4Z 219 | 48       | 49  | 49  | -   | -   | -   | -   | -   |
| B3Z 249 | -        | 55  | 55  | 59  | 71  | 95  | -   | -   |
| B4Z 249 | 53       | 54  | 54  | -   | -   | -   | -   | -   |
| B3Z 269 | -        | -   | 79  | 83  | 95  | 119 | 127 | 167 |
| B4Z 269 | 98       | 99  | 99  | 103 | 115 | -   | -   | -   |
| B3Z 279 | -        | -   | 99  | 103 | 115 | 139 | 147 | 190 |
| B4Z 279 | 98       | 99  | 99  | 103 | 115 | -   | -   | -   |
| B3Z 319 | -        | -   | -   | -   | 115 | 136 | 147 | 190 |
| B4Z 319 | -        | 109 | 109 | 113 | 125 | 146 | -   | -   |
| B3Z 349 | -        | -   | -   | -   | 150 | 171 | 182 | 225 |
| B4Z 349 | -        | 119 | 119 | 123 | 135 | 156 | -   | -   |

### 6.3.1 Cooling and heating unit

On request the gear reducer can be supplied with:

- Cooling coil;
- Cooling fan;
- Air-oil or water-oil cooling unit;
- Oil heater.

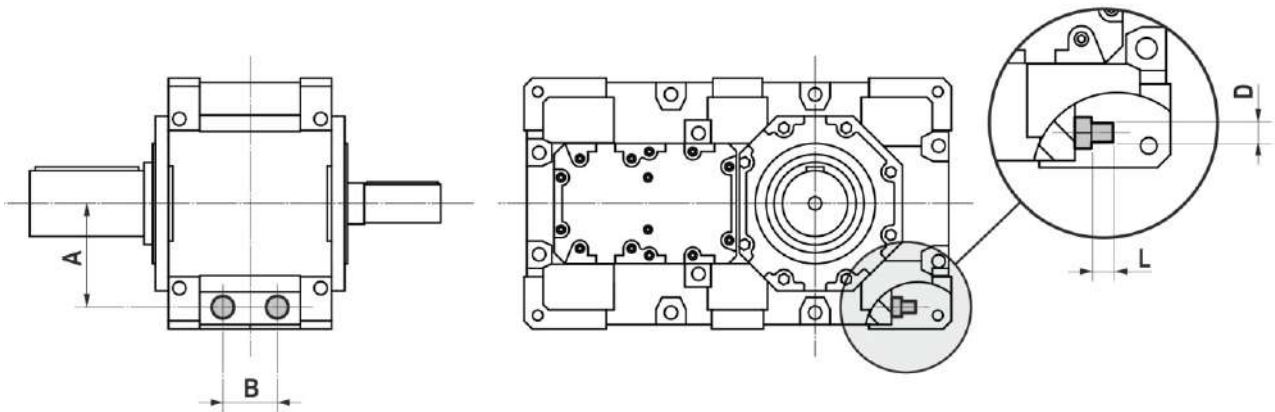
### 6.3.2 Lubrication and monitoring unit

On request the gear reducer can be supplied with:

- Bearings lubrication pump;
- Bearings lubrication motor pump;
- Pressure switch;
- Oil temperature sensor and bearing temperature sensor PT100;
- Oil Expansion tank.

6.3.3 Cooling coil

PBZ

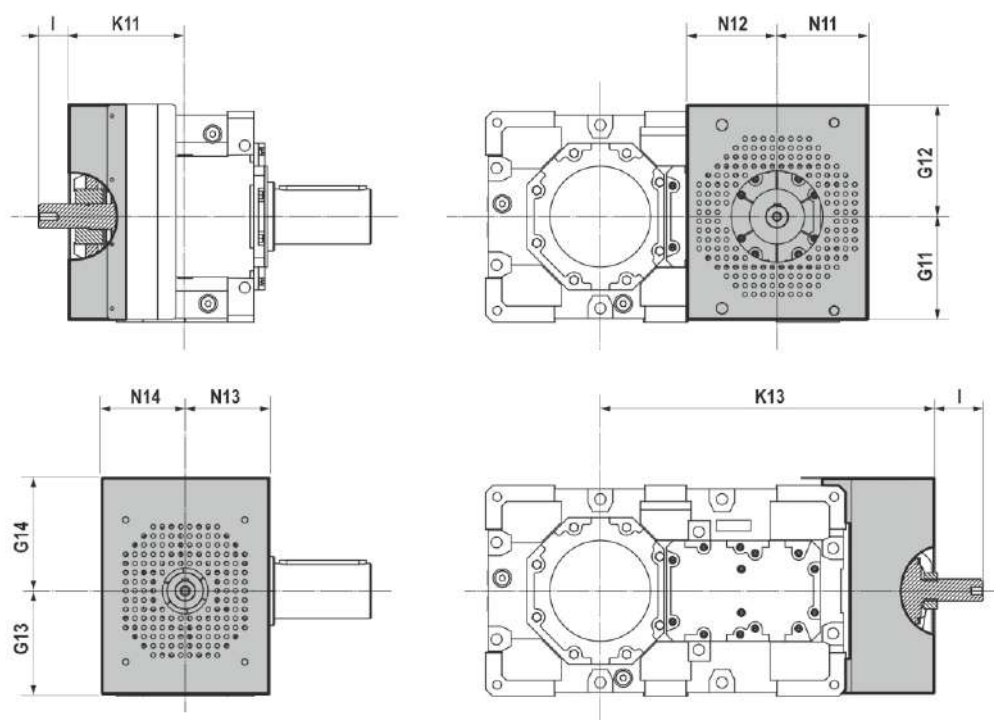


| PZ-BZ | A   | B   | D      | L  |
|-------|-----|-----|--------|----|
| 179   | 164 | 70  | G 1/2" | 17 |
| 199   | 192 | 70  | G 1/2" | 15 |
| 219   | 193 | 90  | G 1/2" | 25 |
| 249   | 193 | 90  | G 1/2" | 20 |
| 269   | 236 | 120 | G 3/4" | 35 |
| 279   | 276 | 120 | G 3/4" | 35 |
| 319   | 277 | 140 | G 3/4" | 30 |
| 349   | 350 | 140 | G 3/4" | 23 |
| 399   | 382 | 200 | G 3/4" | 32 |
| 409   | 382 | 200 | G 3/4" | 32 |

| PZ-BZ   | Flow Rate (lt/min) | Max. Water Inlet Temperature °C |
|---------|--------------------|---------------------------------|
| 179-249 | 4...6              | 20                              |
| 269-409 | 8...10             | 20                              |

## 6.3 DEVICES

## 6.3.4 Cooling fan



|     | P2Z |     |     |     |     | P3Z |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PZ  | G11 | G12 | K11 | N11 | N12 | G11 | G12 | K11 | N11 | N12 |
| 179 | 197 | 215 | 230 | 175 | 175 | 197 | 215 | 220 | 175 | 175 |
| 199 | 227 | 245 | 230 | 175 | 175 | 227 | 245 | 230 | 175 | 175 |
| 219 | 225 | 245 | 255 | 197 | 197 | 225 | 245 | 255 | 197 | 197 |
| 249 | 274 | 300 | 255 | 210 | 210 | 274 | 300 | 255 | 210 | 210 |
| 269 | 272 | 295 | 285 | 238 | 238 | 272 | 295 | 285 | 238 | 238 |
| 279 | 312 | 328 | 285 | 238 | 238 | 312 | 328 | 285 | 238 | 238 |
| 319 | 312 | 340 | 325 | 285 | 285 | 312 | 340 | 325 | 265 | 265 |
| 349 | 390 | 415 | 325 | 285 | 285 | 390 | 415 | 325 | 285 | 285 |
| 399 | 430 | 450 | 420 | 315 | 315 | 430 | 450 | 420 | 315 | 315 |
| 409 | 430 | 450 | 420 | 315 | 315 | 430 | 450 | 420 | 315 | 315 |

|     | B3Z   |       |      |     |     | B4Z |     |      |     |     |
|-----|-------|-------|------|-----|-----|-----|-----|------|-----|-----|
| BZ  | G13   | G14   | K13  | N13 | N14 | G13 | G14 | K13  | N13 | N14 |
| 179 | 198   | 223   | 608  | 160 | 160 | -   | -   | -    | -   | -   |
| 199 | 210,5 | 235,5 | 643  | 160 | 160 | -   | -   | -    | -   | -   |
| 219 | 225   | 248   | 730  | 183 | 183 | 225 | 248 | 840  | 183 | 183 |
| 249 | 275   | 298   | 775  | 183 | 183 | 275 | 298 | 885  | 183 | 183 |
| 269 | 275   | 298   | 863  | 238 | 238 | 275 | 298 | 993  | 238 | 238 |
| 279 | 315   | 338   | 908  | 238 | 238 | 315 | 338 | 1038 | 238 | 238 |
| 319 | 315   | 338   | 1020 | 275 | 275 | 315 | 338 | 1180 | 275 | 275 |
| 349 | 390   | 420   | 1090 | 275 | 275 | 390 | 420 | 1250 | 275 | 275 |
| 399 | 430   | 458   | 1210 | 320 | 320 | 430 | 458 | 1345 | 320 | 320 |
| 409 | 428   | 460   | 1285 | 320 | 320 | 428 | 460 | 1470 | 320 | 320 |

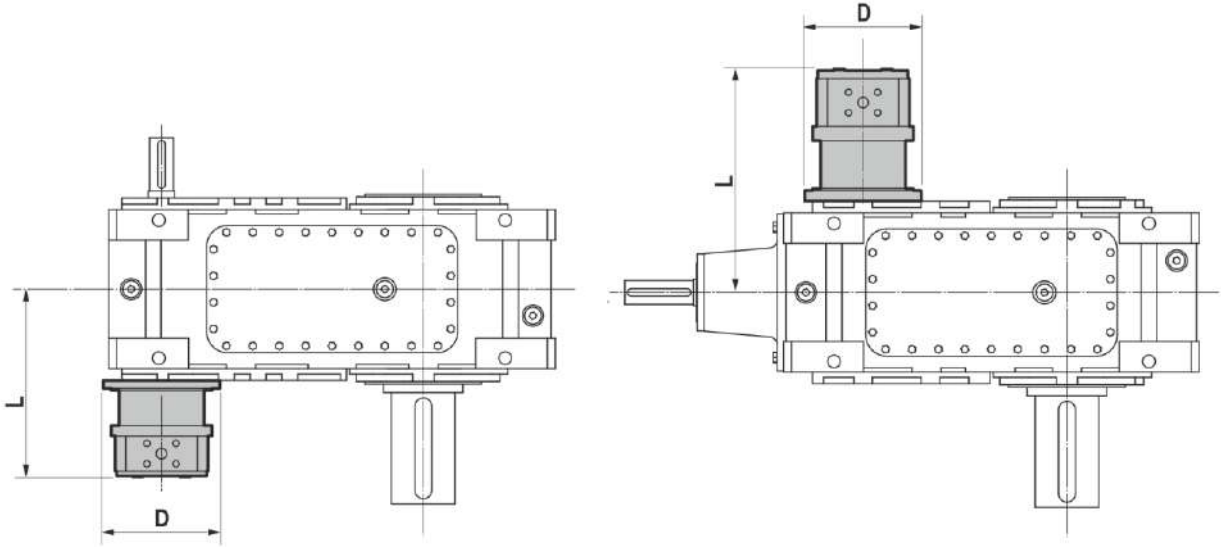
## 6.3 DEVICES

|     | P2Z         | I   | P3Z          | I   |
|-----|-------------|-----|--------------|-----|
| 179 | 6,37-11,37  | 65  | 24,54-42,91  | 20  |
|     | 13,69-16,79 | 55  | 46,42-68,22  | 20  |
|     | 18,19-20,93 | 45  | 73,88-86,20  | 10  |
| 199 | 7,91-14,12  | 65  | 30,48-53,29  | 10  |
|     | 17,00-20,85 | 55  | 57,66-84,72  | 10  |
|     | 22,59-25,99 | 55  | 91,76-107,05 | 0   |
| 219 | 6,28-10,03  | 95  | 22,59-41,46  | 150 |
|     | 10,95-14,68 | 55  | 49,76-62,65  | 140 |
|     | 16,10-18,93 | 65  | 70,49-81,25  | 140 |
| 249 | 7,96-12,72  | 95  | 28,64-52,57  | 60  |
|     | 13,88-18,62 | 55  | 63,09-79,44  | 50  |
|     | 20,41-24,00 | 65  | 89,37-103,02 | 50  |
| 269 | 6,44-11,14  | 95  | 25,06-44,71  | 40  |
|     | 12,03-16,26 | 75  | 53,85-66,05  | 30  |
|     | 17,45-20,65 | 55  | 71,53-82,31  | 20  |
| 279 | 7,96-13,79  | 95  | 31,01-55,32  | 65  |
|     | 14,89-20,12 | 75  | 66,63-81,72  | 55  |
|     | 21,60-25,55 | 55  | 88,51-101,84 | 45  |
| 319 | 6,33-11,55  | 110 | 24,28-38,80  | 90  |
|     | 13,29-15,52 | 90  | 42,35-56,79  | 80  |
|     | 16,73-20,48 | 80  | 62,26-73,22  | 60  |
| 349 | 8,14-14,85  | 110 | 31,22-49,89  | 90  |
|     | 17,09-19,95 | 90  | 54,45-73,01  | 50  |
|     | 21,52-26,33 | 80  | 80,05-94,14  | 60  |
| 399 | 6,62-10,94  | 115 | 24,94-43,18  | 50  |
|     | 12,27-17,20 | 80  | 46,62-63,00  | 30  |
|     | 18,60-20,21 | 80  | 67,63-80,02  | 10  |
| 409 | 8,01-13,24  | 115 | 30,17-52,24  | 50  |
|     | 14,84-20,80 | 80  | 56,40-76,21  | 30  |
|     | 22,50-24,44 | 80  | 81,82-96,80  | 10  |

|     | B3Z         | I   | B4Z           | I  |
|-----|-------------|-----|---------------|----|
| 179 | 13,28-34,98 | 72  | -             | -  |
|     | 37,89-69,75 | 52  | -             | -  |
| 199 | 16,49-43,45 | 72  | -             | -  |
|     | 47,06-86,63 | 52  | -             | -  |
| 219 | 12,03-28,15 | 100 | 60,57-114,86  | 38 |
|     | 30,94-58,38 | 80  | 127,84-330,42 | 28 |
| 249 | 15,26-35,68 | 100 | 76,80-145,63  | 38 |
|     | 39,22-74,01 | 80  | 162,08-418,92 | 28 |
| 269 | 12,34-31,16 | 80  | 79,03-137,60  | 72 |
|     | 34,36-63,67 | 70  | 149,03-348,47 | 52 |
| 279 | 15,26-38,55 | 80  | 97,78-170,25  | 72 |
|     | 42,52-78,78 | 80  | 184,39-431,16 | 52 |
| 319 | 12,14-32,07 | 105 | 63,03-108,84  | 60 |
|     | 38,76-59,72 | 85  | 119,64-320,17 | 40 |
| 349 | 15,61-41,24 | 105 | 81,04-139,94  | 60 |
|     | 49,83-76,78 | 85  | 153,82-411,64 | 40 |
| 399 | 12,69-29,21 | 100 | 70,46-120,75  | 82 |
|     | 33,74-62,30 | 75  | 123,36-327,07 | 72 |
| 409 | 15,35-35,34 | 100 | 85,23-146,07  | 82 |
|     | 40,81-75,36 | 75  | 149,23-395,65 | 72 |

Cooling fan is suitable in case of ambient temperature up to +40°C.

6.3.5 Bearings lubrication pump

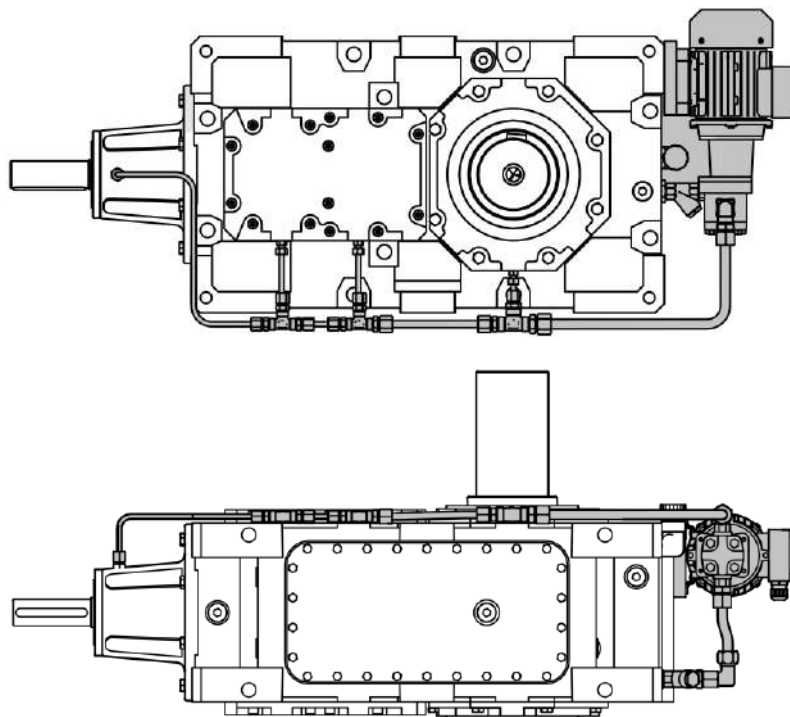


|        | D   | L   |
|--------|-----|-----|
| PZ 179 | 170 | 330 |
| PZ 199 | 170 | 330 |
| PZ 219 | 220 | 355 |
| PZ 249 | 220 | 355 |
| PZ 269 | 260 | 393 |
| PZ 279 | 260 | 393 |
| PZ 319 | 290 | 428 |
| PZ 349 | 290 | 428 |
| PZ 399 | 360 | 489 |
| PZ 409 | 360 | 489 |

|        | D   | L   |
|--------|-----|-----|
| BZ 179 | 170 | 396 |
| BZ 199 | 170 | 396 |
| BZ 219 | 220 | 421 |
| BZ 249 | 220 | 421 |
| BZ 269 | 260 | 459 |
| BZ 279 | 260 | 459 |
| BZ 319 | 290 | 494 |
| BZ 349 | 290 | 494 |
| BZ 399 | 360 | 555 |
| BZ 409 | 360 | 555 |

Mechanical pump for bearing lubrication supplied mounted on the gear reducer (eg. mounting position V5). It is essential that while ordering you specify the direction of free rotation of the output shaft.

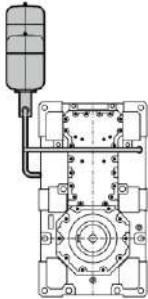
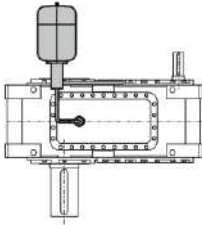
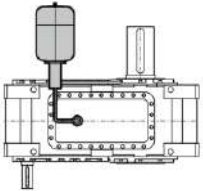
## 6.3.6 Bearings lubrication motor pump



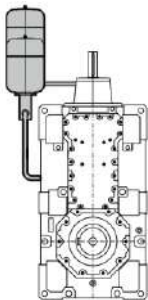
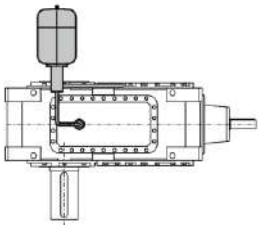
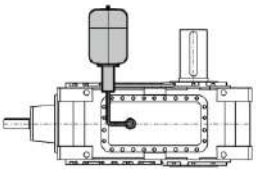
Motor pump for bearing lubrication supplied already mounted on the gear reducer (example for mounting position V6).  
For the overall dimensions, contact MOTOVARIO TECHNICAL SERVICE.

PBZ

6.3.7 Oil expansion tank

| PZ                                                                                |                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| B6                                                                                | V5                                                                                | V6                                                                                  |
|  |  |  |

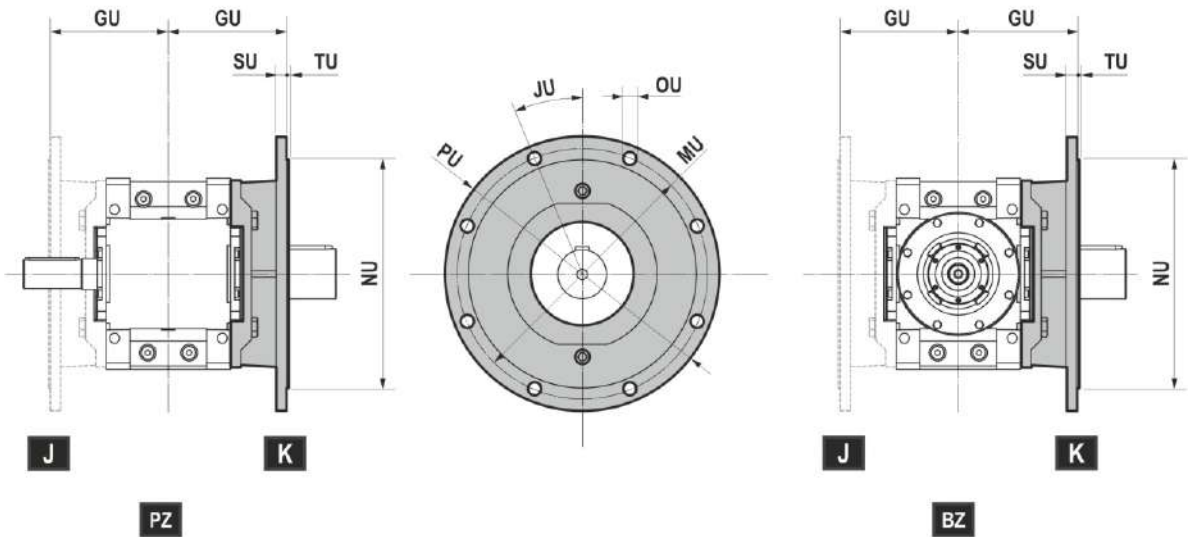
  

| BZ                                                                                 |                                                                                    |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| B6                                                                                 | V5                                                                                 | V6                                                                                   |
|  |  |  |

For the overall dimensions, contact MOTOVARIO TECHNICAL SERVICE.

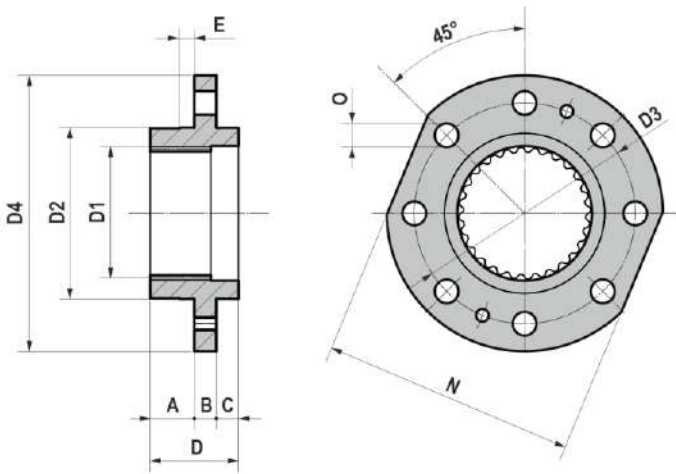
6.4.1 Output flange

Unless otherwise specified, gear reducers are supplied with the flange in pos. K as per mounting position B3. For parallel gear reducers with output flange installed on the same side of the quick shaft, check for any dimensional interference.



| PZ - BZ | PU  | MU  | NU                | SU | TU | OU        | JU     | GU    | [- kg] |
|---------|-----|-----|-------------------|----|----|-----------|--------|-------|--------|
| 179     | 550 | 500 | 450 (-0,02/-0,06) | 25 | 5  | 18 (n°8)  | 22°30' | 217,5 | 54     |
| 199     | 550 | 500 | 450 (-0,02/-0,06) | 25 | 5  | 18 (n°8)  | 22°30' | 217,5 | 58     |
| 219     | 660 | 600 | 550 (-0,02/-0,07) | 30 | 6  | 22 (n°8)  | 22°30' | 285   | 101    |
| 249     | 660 | 600 | 550 (-0,02/-0,07) | 30 | 6  | 22 (n°8)  | 22°30' | 285   | 105    |
| 269     | 660 | 600 | 550 (-0,02/-0,07) | 35 | 6  | 26 (n°12) | 15°    | 319   | 105    |
| 279     | 660 | 600 | 550 (-0,02/-0,07) | 35 | 6  | 26 (n°12) | 15°    | 319   | 104    |
| 319     | 800 | 740 | 680 (-0,02/-0,07) | 45 | 6  | 26 (n°12) | 15°    | 399   | 229    |
| 349     | 800 | 740 | 680 (-0,02/-0,07) | 45 | 6  | 26 (n°12) | 15°    | 399   | 211    |

6.4.2 Flange for splined output shaft

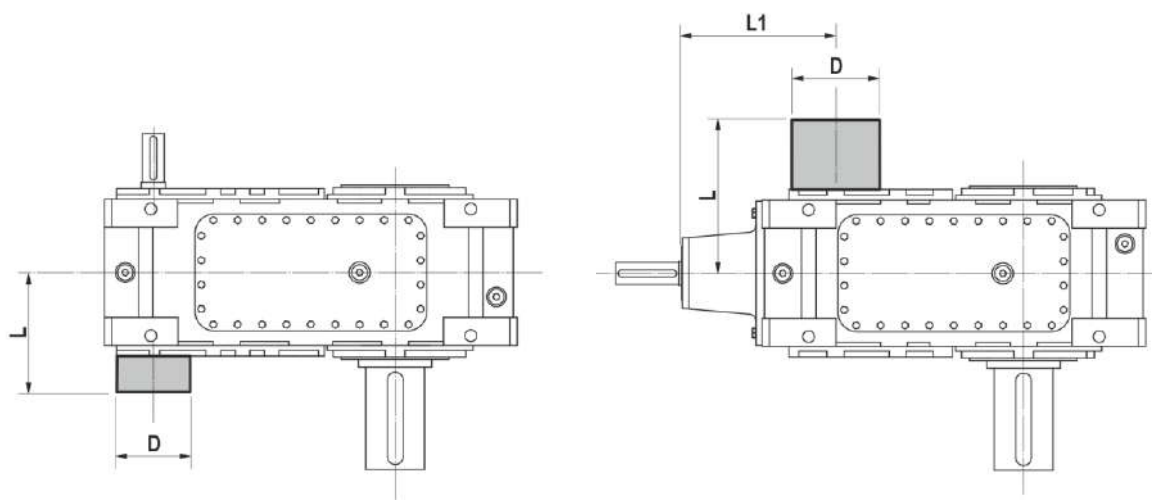


| PBZ | D1<br>(DIN5480) | D2 f8 | D3  | D4  | A   | B  | C  | D   | E  | N   | O    |
|-----|-----------------|-------|-----|-----|-----|----|----|-----|----|-----|------|
| 179 | N100x4x30x24x9H | 150   | 190 | 240 | 55  | 23 | 20 | 98  | 18 | 220 | 19,5 |
| 199 | N110x4x30x26x9H | 150   | 190 | 240 | 55  | 23 | 20 | 98  | 18 | 220 | 19,5 |
| 219 | N120x4x30x28x9H | 155   | 200 | 250 | 60  | 23 | 20 | 103 | 20 | 230 | 21,5 |
| 249 | N130x4x30x31x9H | 180   | 280 | 355 | 80  | 25 | 20 | 125 | 26 | 315 | 23,5 |
| 269 | N130x4x30x31x9H | 180   | 280 | 355 | 80  | 25 | 20 | 125 | 26 | 315 | 23,5 |
| 279 | N150x4x30x36x9H | 225   | 355 | 450 | 103 | 32 | 25 | 160 | 34 | 400 | 23,5 |
| 319 | N150x4x30x36x9H | 225   | 355 | 450 | 103 | 32 | 25 | 160 | 34 | 400 | 29   |
| 349 | N180x5x30x34x9H | 250   | 400 | 500 | 118 | 34 | 28 | 180 | 39 | 450 | 32   |
| 399 | N200x8x30x24x9H | 280   | 450 | 560 | 132 | 36 | 32 | 200 | 44 | 500 | 35   |
| 409 | N200x8x30x24x9H | 280   | 450 | 560 | 132 | 36 | 32 | 200 | 44 | 500 | 35   |

## 6.4 ACCESSORIES

### 6.4.3 Backstop device

Gear reducers may be equipped with backstop. The backstop allows shafts to rotate in one direction only. It is essential that while ordering you specify the direction of free rotation of the output shaft, according to the white or black arrow. Please see relevant paragraph "DIRECTION OF ROTATION. Please contact MOTOVARIO TECHNICAL SERVICE to verify dimensions of backstop.



|         | D   | L     |
|---------|-----|-------|
| P2Z 179 | 179 | 242,5 |
| P2Z 199 | 179 | 242,5 |
| P2Z 219 | 190 | 267   |
| P2Z 249 | 190 | 267   |
| P2Z 269 | 210 | 317   |
| P2Z 279 | 210 | 317   |
| P2Z 319 | 245 | 361   |
| P2Z 349 | 245 | 361   |
| P2Z 399 | 245 | 440   |
| P2Z 409 | 245 | 440   |

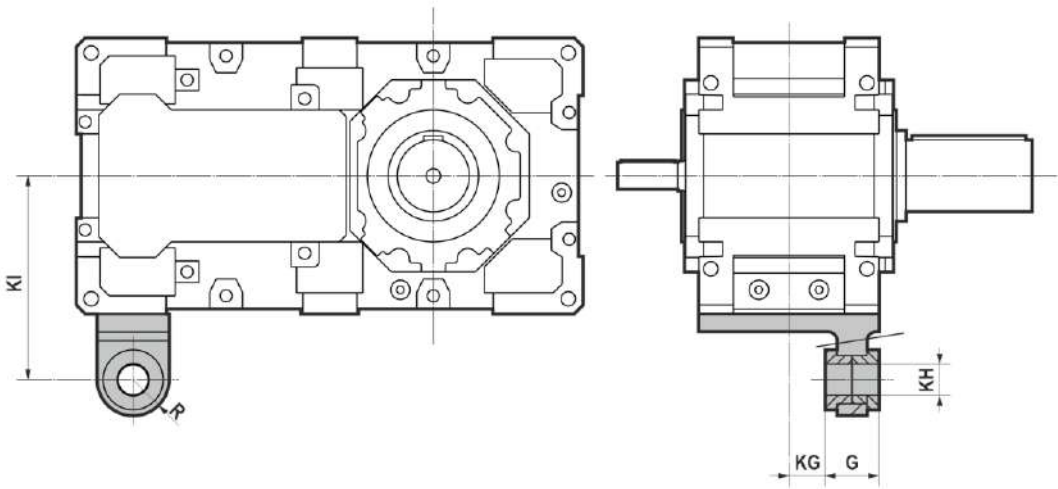
|         | D   | L     |
|---------|-----|-------|
| P3Z 179 | 110 | 211,5 |
| P3Z 199 | 110 | 211,5 |
| P3Z 219 | 150 | 246   |
| P3Z 249 | 150 | 246   |
| P3Z 269 | 179 | 305   |
| P3Z 279 | 179 | 305   |
| P3Z 319 | 190 | 340   |
| P3Z 349 | 190 | 340   |
| P3Z 399 | 210 | 407   |
| P3Z 409 | 210 | 407   |

|         | D   | L   |
|---------|-----|-----|
| P4Z 219 | 96  | 238 |
| P4Z 249 | 96  | 238 |
| P4Z 269 | 110 | 274 |
| P4Z 279 | 110 | 274 |
| P4Z 319 | 130 | 314 |
| P4Z 349 | 130 | 314 |
| P4Z 399 | 150 | 374 |
| P4Z 409 | 150 | 374 |

|         | D   | L     | L1  |
|---------|-----|-------|-----|
| B3Z 179 | 154 | 263,5 | 270 |
| B3Z 199 | 154 | 263,5 | 270 |
| B3Z 219 | 179 | 315   | 320 |
| B3Z 249 | 179 | 315   | 320 |
| B3Z 269 | 210 | 370   | 360 |
| B3Z 279 | 210 | 370   | 360 |
| B3Z 319 | 245 | 410   | 425 |
| B3Z 349 | 245 | 410   | 425 |
| B3Z 399 | 245 | 426   | 490 |
| B3Z 409 | 245 | 426   | 490 |

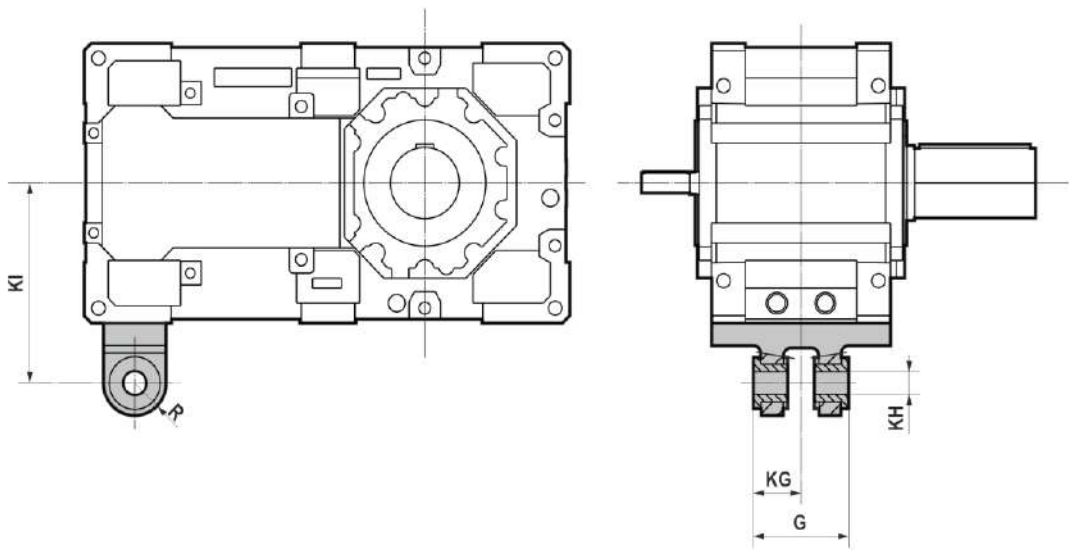
|         | D   | L   | L1  |
|---------|-----|-----|-----|
| B4Z 219 | 136 | 279 | 240 |
| B4Z 249 | 136 | 279 | 240 |
| B4Z 269 | 154 | 326 | 270 |
| B4Z 279 | 154 | 326 | 270 |
| B4Z 319 | 179 | 388 | 320 |
| B4Z 349 | 179 | 388 | 320 |
| B4Z 399 | 210 | 462 | 360 |
| B4Z 409 | 210 | 462 | 360 |

6.4.4 Torque arm



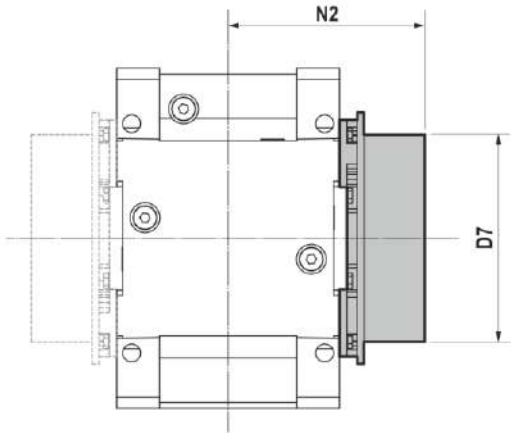
|                               | KI  | KG   | KH | G  | R   |
|-------------------------------|-----|------|----|----|-----|
| P2Z 179<br>B3Z 179            | 276 | 47,5 | 32 | 80 | 94  |
| P3Z 179                       | 276 | 47,5 | 32 | 80 | 94  |
| P2Z 199<br>B3Z 199            | 306 | 47,5 | 32 | 80 | 94  |
| P3Z 199                       | 306 | 47,5 | 32 | 80 | 94  |
| P2Z 219<br>B3Z 219            | 340 | 60   | 52 | 90 | 120 |
| P3Z 219<br>P4Z 219<br>B4Z 219 | 340 | 60   | 52 | 90 | 120 |
| P2Z 249<br>B3Z 249            | 390 | 60   | 52 | 90 | 120 |
| P3Z 249<br>P4Z 249<br>B4Z 249 | 390 | 60   | 52 | 90 | 120 |

6.4 ACCESSORIES



|                               | KI  | KG   | KH | G   | R   |
|-------------------------------|-----|------|----|-----|-----|
| P2Z 269<br>B3Z 269            | 400 | 98,5 | 45 | 197 | 130 |
| P3Z 269<br>P4Z 269<br>B4Z 269 | 400 | 98,5 | 45 | 197 | 130 |
| P2Z 279<br>B3Z 279            | 440 | 98,5 | 45 | 197 | 130 |
| P3Z 279<br>P4Z 279<br>B4Z 279 | 440 | 98,5 | 45 | 197 | 130 |
| P2Z 319<br>B3Z 319            | 460 | 107  | 50 | 214 | 140 |
| P3Z 319<br>P4Z 319<br>B4Z 319 | 460 | 107  | 50 | 214 | 140 |
| P2Z 349<br>B3Z 349            | 540 | 107  | 50 | 214 | 140 |
| P3Z 349<br>P4Z 349<br>B4Z 349 | 540 | 107  | 50 | 214 | 140 |
| P2Z 399<br>B3Z 399            | 600 | 123  | 60 | 246 | 160 |
| P3Z 399<br>P4Z 399<br>B4Z 399 | 600 | 123  | 60 | 246 | 160 |
| P2Z 409<br>B3Z 409            | 600 | 123  | 60 | 246 | 160 |
| P3Z 409<br>P4Z 409<br>B4Z 409 | 600 | 123  | 60 | 246 | 160 |

6.4.5 Output shaft cover



| PZ-BZ | D7  | N2    |
|-------|-----|-------|
| 179   | 241 | 267,5 |
| 199   | 256 | 272,5 |
| 219   | 280 | 315   |
| 249   | 310 | 318   |
| 269   | 320 | 360   |
| 279   | 378 | 402   |
| 319   | 420 | 462   |
| 349   | 451 | 467   |
| 399   | 471 | 549   |
| 409   | 501 | 560   |

### 6.4.6 Optional seals

On request the gear reducer can be supplied with:

- Labyrinth seal with grease nipple. Recommended for dust and aggressive environments. Overall dimensions of shaft in an axial direction may differ from standard dimensions. Please contact MOTOVARIO TECHNICAL SERVICE.
- Sealing rings in FPM (FKM) fluorinated rubber. Recommended for ambient temperatures above 40 °C, in aggressive industrial environments and with high input speeds. Do not use at ambient temperatures below 10 °C.
- Dual seal. Available both on input and output shaft, in NBR rubber as well as in FPM (FKM) fluorinated rubber.

### 6.4.7 Other Accessories and Options

On request the gear reducer can be supplied with:

- Filling plug with filter;
- Special painting with C3, C4, C5I and C5M corrosive classes according to UNI EN ISO 12944;
- Torque arm.

## 7.1 PZ GEAR REDUCER - 1750 rpm

## P2Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 6,37 | 270                     | 275                     |
| 9000                    | 7,14 | 241                     | 245                     |
| 9000                    | 8,06 | 213                     | 217                     |
| 9000                    | 9,64 | 178                     | 182                     |
| 9000                    | 10,5 | 164                     | 167                     |
| 9000                    | 11,4 | 151                     | 154                     |
| 9000                    | 13,7 | 125                     | 128                     |
| 9000                    | 15,6 | 110                     | 112                     |
| 8640                    | 16,8 | 98,2                    | 104                     |
| 8160                    | 18,2 | 85,6                    | 96,2                    |
| 6900                    | 19,2 | 68,6                    | 91,1                    |
| 7050                    | 20,9 | 64,3                    | 83,6                    |

## P2Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13300                   | 6,28 | 403                     | 279                     |
| 13900                   | 7,28 | 364                     | 240                     |
| 14300                   | 7,86 | 347                     | 223                     |
| 14700                   | 8,50 | 329                     | 206                     |
| 15100                   | 9,22 | 312                     | 190                     |
| 15500                   | 10,0 | 295                     | 174                     |
| 16000                   | 11,0 | 278                     | 160                     |
| 16700                   | 12,7 | 251                     | 138                     |
| 16200                   | 14,7 | 210                     | 119                     |
| 15100                   | 16,1 | 178                     | 109                     |
| 14300                   | 17,4 | 157                     | 100                     |
| 13400                   | 18,9 | 135                     | 92,4                    |

## P2Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27000                   | 6,44 | 800                     | 272                     |
| 28500                   | 7,47 | 727                     | 234                     |
| 29000                   | 8,74 | 633                     | 200                     |
| 29000                   | 9,49 | 583                     | 184                     |
| 29000                   | 10,3 | 536                     | 169                     |
| 29000                   | 11,1 | 497                     | 157                     |
| 29000                   | 12,0 | 460                     | 145                     |
| 29000                   | 14,2 | 391                     | 124                     |
| 27700                   | 16,3 | 325                     | 108                     |
| 25300                   | 17,5 | 277                     | 100                     |
| 25500                   | 18,9 | 258                     | 92,7                    |
| 21400                   | 20,7 | 198                     | 84,7                    |

## P2Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 7,91 | 265                     | 221                     |
| 11000                   | 8,87 | 237                     | 197                     |
| 11000                   | 10,0 | 210                     | 175                     |
| 11000                   | 12,0 | 175                     | 146                     |
| 11000                   | 13,0 | 162                     | 135                     |
| 11000                   | 14,1 | 149                     | 124                     |
| 11000                   | 17,0 | 124                     | 103                     |
| 11000                   | 19,3 | 109                     | 90,5                    |
| 10700                   | 20,9 | 98,3                    | 83,9                    |
| 10100                   | 22,6 | 85,6                    | 77,5                    |
| 8570                    | 23,9 | 68,6                    | 73,4                    |
| 8760                    | 26,0 | 64,3                    | 67,3                    |

## P2Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16800                   | 7,96 | 403                     | 220                     |
| 17700                   | 9,23 | 365                     | 190                     |
| 18100                   | 9,96 | 347                     | 176                     |
| 18600                   | 10,8 | 329                     | 162                     |
| 19100                   | 11,7 | 312                     | 150                     |
| 19700                   | 12,7 | 295                     | 138                     |
| 20200                   | 13,9 | 278                     | 126                     |
| 21200                   | 16,1 | 252                     | 109                     |
| 20500                   | 18,6 | 210                     | 94,0                    |
| 19100                   | 20,4 | 179                     | 85,7                    |
| 18100                   | 22,1 | 156                     | 79,2                    |
| 17000                   | 24,0 | 135                     | 72,9                    |

## P2Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33500                   | 7,96 | 802                     | 220                     |
| 35200                   | 9,25 | 726                     | 189                     |
| 36000                   | 10,8 | 636                     | 162                     |
| 36000                   | 11,7 | 585                     | 149                     |
| 36000                   | 12,8 | 538                     | 137                     |
| 36000                   | 13,8 | 498                     | 127                     |
| 36000                   | 14,9 | 461                     | 118                     |
| 36000                   | 17,5 | 392                     | 99,9                    |
| 34300                   | 20,1 | 325                     | 87,0                    |
| 31300                   | 21,6 | 277                     | 81,0                    |
| 31600                   | 23,4 | 258                     | 74,9                    |
| 26500                   | 25,6 | 198                     | 68,5                    |

## 7.1 PZ GEAR REDUCER - 1750 rpm

## P2Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38700                   | 6,33 | 1170                    | 276                     |
| 40600                   | 7,31 | 1060                    | 239                     |
| 42700                   | 8,50 | 959                     | 206                     |
| 44600                   | 9,73 | 875                     | 180                     |
| 45900                   | 10,6 | 827                     | 165                     |
| 47200                   | 11,6 | 780                     | 152                     |
| 49400                   | 13,3 | 710                     | 132                     |
| 50700                   | 14,4 | 670                     | 121                     |
| 45200                   | 15,5 | 556                     | 113                     |
| 45700                   | 16,7 | 521                     | 105                     |
| 40100                   | 19,0 | 404                     | 92,3                    |
| 39200                   | 20,5 | 365                     | 85,4                    |

## P2Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70700                   | 6,62 | 2040                    | 264                     |
| 74100                   | 7,57 | 1870                    | 231                     |
| 77700                   | 8,72 | 1700                    | 201                     |
| 79600                   | 9,38 | 1620                    | 187                     |
| 81600                   | 10,1 | 1540                    | 173                     |
| 83800                   | 10,9 | 1460                    | 160                     |
| 87100                   | 12,3 | 1350                    | 143                     |
| 89200                   | 13,2 | 1290                    | 132                     |
| 86400                   | 15,2 | 1080                    | 115                     |
| 73900                   | 17,2 | 820                     | 102                     |
| 74700                   | 18,6 | 767                     | 94,1                    |
| 73300                   | 20,2 | 692                     | 86,6                    |

## P2Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49700                   | 8,14 | 1170                    | 215                     |
| 52200                   | 9,40 | 1060                    | 186                     |
| 55000                   | 10,9 | 961                     | 160                     |
| 57400                   | 12,5 | 875                     | 140                     |
| 59000                   | 13,6 | 827                     | 129                     |
| 60700                   | 14,9 | 780                     | 118                     |
| 63600                   | 17,1 | 710                     | 102                     |
| 65200                   | 18,6 | 670                     | 94,3                    |
| 58100                   | 20,0 | 556                     | 87,7                    |
| 58800                   | 21,5 | 521                     | 81,3                    |
| 51600                   | 24,4 | 404                     | 71,8                    |
| 50300                   | 26,3 | 365                     | 66,5                    |

## P2Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 85500                   | 8,01 | 2040                    | 218                     |
| 89600                   | 9,16 | 1870                    | 191                     |
| 93900                   | 10,6 | 1700                    | 166                     |
| 96300                   | 11,4 | 1620                    | 154                     |
| 98700                   | 12,2 | 1540                    | 143                     |
| 101000                  | 13,2 | 1460                    | 132                     |
| 105000                  | 14,8 | 1350                    | 118                     |
| 108000                  | 16,0 | 1290                    | 109                     |
| 105000                  | 18,4 | 1080                    | 94,9                    |
| 89400                   | 20,8 | 820                     | 84,1                    |
| 90300                   | 22,5 | 766                     | 77,8                    |
| 88700                   | 24,4 | 692                     | 71,6                    |

## 7.1 PZ GEAR REDUCER - 1750 rpm

## P3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 24,5 | 71,5                    | 71,3                    |
| 9000                    | 28,0 | 62,7                    | 62,5                    |
| 9000                    | 32,1 | 54,7                    | 54,6                    |
| 9000                    | 36,9 | 47,5                    | 47,4                    |
| 9000                    | 42,9 | 40,9                    | 40,8                    |
| 9000                    | 46,4 | 37,8                    | 37,7                    |
| 9000                    | 51,4 | 34,1                    | 34,0                    |
| 9000                    | 57,7 | 30,4                    | 30,3                    |
| 9000                    | 68,2 | 25,7                    | 25,7                    |
| 9000                    | 73,9 | 23,7                    | 23,7                    |
| 9000                    | 79,8 | 22,0                    | 21,9                    |
| 8840                    | 86,2 | 20,0                    | 20,3                    |

## P3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 22,6 | 164                     | 77,5                    |
| 19000                   | 25,1 | 148                     | 69,7                    |
| 19000                   | 28,7 | 129                     | 61,0                    |
| 19000                   | 33,0 | 112                     | 53,0                    |
| 19000                   | 38,3 | 96,6                    | 45,6                    |
| 19000                   | 41,5 | 89,3                    | 42,2                    |
| 19000                   | 49,8 | 74,4                    | 35,2                    |
| 19000                   | 57,8 | 64,1                    | 30,3                    |
| 18400                   | 62,7 | 57,3                    | 27,9                    |
| 16100                   | 70,5 | 44,5                    | 24,8                    |
| 15500                   | 75,3 | 40,1                    | 23,3                    |
| 14600                   | 81,3 | 35,0                    | 21,5                    |

## P3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 25,1 | 226                     | 69,8                    |
| 29000                   | 28,1 | 201                     | 62,3                    |
| 29000                   | 31,7 | 178                     | 55,2                    |
| 29000                   | 37,9 | 149                     | 46,1                    |
| 29000                   | 41,1 | 137                     | 42,6                    |
| 29000                   | 44,7 | 126                     | 39,1                    |
| 29000                   | 53,9 | 105                     | 32,5                    |
| 29000                   | 61,2 | 92,4                    | 28,6                    |
| 29000                   | 66,1 | 85,6                    | 26,5                    |
| 29000                   | 71,5 | 79,0                    | 24,5                    |
| 23900                   | 75,6 | 61,7                    | 23,2                    |
| 27200                   | 82,3 | 64,4                    | 21,3                    |

## P3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 30,5 | 70,4                    | 57,4                    |
| 11000                   | 34,8 | 61,7                    | 50,3                    |
| 11000                   | 39,8 | 53,9                    | 44,0                    |
| 11000                   | 45,9 | 46,7                    | 38,1                    |
| 11000                   | 53,3 | 40,2                    | 32,8                    |
| 11000                   | 57,7 | 37,2                    | 30,4                    |
| 11000                   | 63,9 | 33,6                    | 27,4                    |
| 11000                   | 71,7 | 29,9                    | 24,4                    |
| 11000                   | 84,7 | 25,3                    | 20,7                    |
| 11000                   | 91,8 | 23,4                    | 19,1                    |
| 11000                   | 99,1 | 21,6                    | 17,7                    |
| 11000                   | 107  | 20,0                    | 16,3                    |

## P3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 28,6 | 163                     | 61,1                    |
| 24000                   | 31,8 | 147                     | 55,0                    |
| 24000                   | 36,4 | 129                     | 48,1                    |
| 24000                   | 41,9 | 112                     | 41,8                    |
| 24000                   | 48,6 | 96,2                    | 36,0                    |
| 24000                   | 52,6 | 89,0                    | 33,3                    |
| 24000                   | 63,1 | 74,2                    | 27,7                    |
| 24000                   | 73,3 | 63,8                    | 23,9                    |
| 23300                   | 79,4 | 57,2                    | 22,0                    |
| 20500                   | 89,4 | 44,6                    | 19,6                    |
| 19700                   | 95,4 | 40,2                    | 18,3                    |
| 18500                   | 103  | 35,0                    | 17,0                    |

## P3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 31,0 | 226                     | 56,4                    |
| 36000                   | 34,8 | 202                     | 50,4                    |
| 36000                   | 39,2 | 179                     | 44,6                    |
| 36000                   | 46,9 | 150                     | 37,3                    |
| 36000                   | 50,9 | 138                     | 34,4                    |
| 36000                   | 55,3 | 127                     | 31,6                    |
| 36000                   | 66,6 | 105                     | 26,3                    |
| 36000                   | 75,7 | 92,7                    | 23,1                    |
| 36000                   | 81,7 | 85,9                    | 21,4                    |
| 36000                   | 88,5 | 79,3                    | 19,8                    |
| 29600                   | 93,5 | 61,6                    | 18,7                    |
| 33700                   | 102  | 64,4                    | 17,2                    |

## 7.1 PZ GEAR REDUCER - 1750 rpm

## P3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 24,3 | 442                     | 72,1                    |
| 55000                   | 28,2 | 381                     | 62,2                    |
| 55000                   | 30,4 | 353                     | 57,6                    |
| 55000                   | 32,9 | 326                     | 53,2                    |
| 55000                   | 35,7 | 301                     | 49,1                    |
| 55000                   | 38,8 | 276                     | 45,1                    |
| 55000                   | 42,4 | 253                     | 41,3                    |
| 55000                   | 49,1 | 218                     | 35,6                    |
| 55000                   | 56,8 | 189                     | 30,8                    |
| 55000                   | 62,3 | 172                     | 28,1                    |
| 54100                   | 67,4 | 157                     | 26,0                    |
| 50700                   | 73,2 | 135                     | 23,9                    |

## P3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 24,9 | 703                     | 70,2                    |
| 90000                   | 29,0 | 606                     | 60,4                    |
| 90000                   | 33,9 | 518                     | 51,7                    |
| 90000                   | 36,8 | 477                     | 47,6                    |
| 90000                   | 40,0 | 439                     | 43,7                    |
| 90000                   | 43,2 | 406                     | 40,5                    |
| 90000                   | 46,6 | 376                     | 37,5                    |
| 90000                   | 54,9 | 320                     | 31,9                    |
| 90000                   | 63,0 | 278                     | 27,8                    |
| 90000                   | 67,6 | 259                     | 25,9                    |
| 90000                   | 73,2 | 240                     | 23,9                    |
| 81300                   | 80,0 | 198                     | 21,9                    |

## P3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 31,2 | 437                     | 56,1                    |
| 70000                   | 36,2 | 377                     | 48,3                    |
| 70000                   | 39,1 | 349                     | 44,8                    |
| 70000                   | 42,3 | 323                     | 41,4                    |
| 70000                   | 45,9 | 298                     | 38,2                    |
| 70000                   | 49,9 | 274                     | 35,1                    |
| 70000                   | 54,5 | 251                     | 32,1                    |
| 70000                   | 63,1 | 216                     | 27,7                    |
| 70000                   | 73,0 | 187                     | 24,0                    |
| 70000                   | 80,1 | 170                     | 21,9                    |
| 69600                   | 86,6 | 157                     | 20,2                    |
| 65200                   | 94,1 | 135                     | 18,6                    |

## P3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 30,2 | 711                     | 58,0                    |
| 110000                  | 35,0 | 612                     | 50,0                    |
| 110000                  | 41,0 | 523                     | 42,7                    |
| 110000                  | 44,5 | 482                     | 39,4                    |
| 110000                  | 48,4 | 443                     | 36,2                    |
| 110000                  | 52,2 | 410                     | 33,5                    |
| 110000                  | 56,4 | 380                     | 31,0                    |
| 110000                  | 66,4 | 323                     | 26,4                    |
| 110000                  | 76,2 | 281                     | 23,0                    |
| 110000                  | 81,8 | 262                     | 21,4                    |
| 110000                  | 88,5 | 242                     | 19,8                    |
| 98300                   | 96,8 | 198                     | 18,1                    |

P4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 87,8 | 43,1                    | 19,9        |
| 19000                   | 93,4 | 40,5                    | 18,7        |
| 19000                   | 106  | 35,7                    | 16,5        |
| 19000                   | 121  | 31,3                    | 14,5        |
| 19000                   | 139  | 27,3                    | 12,6        |
| 19000                   | 161  | 23,6                    | 10,9        |
| 19000                   | 188  | 20,1                    | 9,31        |
| 19000                   | 204  | 18,5                    | 8,57        |
| 19000                   | 224  | 16,9                    | 7,81        |
| 19000                   | 243  | 15,6                    | 7,21        |
| 19000                   | 293  | 12,9                    | 5,97        |
| 19000                   | 318  | 11,9                    | 5,50        |

P4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 96,5 | 59,8                    | 18,1        |
| 29000                   | 110  | 52,5                    | 15,9        |
| 29000                   | 126  | 45,8                    | 13,9        |
| 29000                   | 145  | 39,8                    | 12,0        |
| 29000                   | 169  | 34,2                    | 10,4        |
| 29000                   | 183  | 31,6                    | 9,58        |
| 29000                   | 202  | 28,6                    | 8,65        |
| 29000                   | 227  | 25,4                    | 7,71        |
| 29000                   | 268  | 21,5                    | 6,52        |
| 29000                   | 291  | 19,9                    | 6,02        |
| 29000                   | 314  | 18,4                    | 5,58        |
| 29000                   | 339  | 17,0                    | 5,16        |

P4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55000                   | 87,4 | 125                     | 20,0        |
| 55000                   | 97,0 | 113                     | 18,0        |
| 55000                   | 111  | 98,7                    | 15,8        |
| 55000                   | 128  | 85,7                    | 13,7        |
| 55000                   | 148  | 73,9                    | 11,8        |
| 55000                   | 160  | 68,3                    | 10,9        |
| 55000                   | 192  | 56,9                    | 9,09        |
| 55000                   | 224  | 49,0                    | 7,83        |
| 55000                   | 242  | 45,2                    | 7,22        |
| 55000                   | 273  | 40,2                    | 6,42        |
| 53400                   | 291  | 36,5                    | 6,01        |
| 55000                   | 314  | 34,9                    | 5,57        |

P4Z 249

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 24000                   | 111 | 42,9                    | 15,7        |
| 24000                   | 118 | 40,4                    | 14,8        |
| 24000                   | 134 | 35,6                    | 13,0        |
| 24000                   | 153 | 31,2                    | 11,4        |
| 24000                   | 176 | 27,2                    | 9,95        |
| 24000                   | 204 | 23,5                    | 8,59        |
| 24000                   | 238 | 20,1                    | 7,35        |
| 24000                   | 259 | 18,5                    | 6,76        |
| 24000                   | 284 | 16,8                    | 6,16        |
| 24000                   | 308 | 15,5                    | 5,68        |
| 24000                   | 371 | 12,9                    | 4,71        |
| 24000                   | 403 | 11,9                    | 4,34        |

P4Z 279

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 36000                   | 119 | 60,0                    | 14,7        |
| 36000                   | 136 | 52,6                    | 12,8        |
| 36000                   | 156 | 46,0                    | 11,2        |
| 36000                   | 180 | 39,9                    | 9,73        |
| 36000                   | 209 | 34,3                    | 8,38        |
| 36000                   | 226 | 31,7                    | 7,75        |
| 36000                   | 250 | 28,7                    | 6,99        |
| 36000                   | 281 | 25,5                    | 6,23        |
| 36000                   | 332 | 21,6                    | 5,27        |
| 36000                   | 360 | 19,9                    | 4,87        |
| 36000                   | 388 | 18,5                    | 4,51        |
| 36000                   | 419 | 17,1                    | 4,17        |

P4Z 349

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 70000                   | 112 | 124                     | 15,6        |
| 70000                   | 125 | 112                     | 14,0        |
| 70000                   | 143 | 97,7                    | 12,3        |
| 70000                   | 164 | 84,9                    | 10,7        |
| 70000                   | 191 | 73,1                    | 9,18        |
| 70000                   | 206 | 67,6                    | 8,49        |
| 70000                   | 247 | 56,3                    | 7,07        |
| 70000                   | 287 | 48,5                    | 6,09        |
| 70000                   | 312 | 44,8                    | 5,62        |
| 70000                   | 350 | 39,8                    | 4,99        |
| 68700                   | 374 | 36,6                    | 4,68        |
| 70000                   | 404 | 34,5                    | 4,33        |

## 7.1 PZ GEAR REDUCER - 1750 rpm

## P4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 97,1 | 185                     | 18,0                    |
| 90000                   | 109  | 165                     | 16,1                    |
| 90000                   | 123  | 146                     | 14,2                    |
| 90000                   | 147  | 122                     | 11,9                    |
| 90000                   | 159  | 112                     | 11,0                    |
| 90000                   | 173  | 103                     | 10,1                    |
| 90000                   | 209  | 85,9                    | 8,39                    |
| 90000                   | 237  | 75,6                    | 7,38                    |
| 90000                   | 256  | 70,0                    | 6,84                    |
| 90000                   | 277  | 64,7                    | 6,31                    |
| 90000                   | 293  | 61,2                    | 5,98                    |
| 90000                   | 319  | 56,2                    | 5,49                    |

## P4Z 409

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 110000                  | 117 | 186                     | 14,9                    |
| 110000                  | 132 | 166                     | 13,3                    |
| 110000                  | 149 | 147                     | 11,8                    |
| 110000                  | 178 | 123                     | 9,84                    |
| 110000                  | 193 | 114                     | 9,08                    |
| 110000                  | 210 | 105                     | 8,35                    |
| 110000                  | 252 | 86,8                    | 6,93                    |
| 110000                  | 287 | 76,4                    | 6,10                    |
| 110000                  | 310 | 70,8                    | 5,65                    |
| 110000                  | 335 | 65,3                    | 5,22                    |
| 110000                  | 354 | 61,8                    | 4,94                    |
| 110000                  | 386 | 56,8                    | 4,54                    |

## 7.2 PZ GEAR REDUCER - 1400 rpm

## P2Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 6,37 | 216                     | 220                     |
| 9000                    | 7,14 | 192                     | 196                     |
| 9000                    | 8,06 | 171                     | 174                     |
| 9000                    | 9,64 | 143                     | 145                     |
| 9000                    | 10,5 | 132                     | 134                     |
| 9000                    | 11,4 | 121                     | 123                     |
| 9000                    | 13,7 | 100                     | 102                     |
| 9000                    | 15,6 | 88,3                    | 90,0                    |
| 8640                    | 16,8 | 78,6                    | 83,4                    |
| 8160                    | 18,2 | 68,5                    | 77,0                    |
| 6900                    | 19,2 | 54,8                    | 72,9                    |
| 7050                    | 20,9 | 51,4                    | 66,9                    |

## P2Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13300                   | 6,28 | 322                     | 223                     |
| 13900                   | 7,28 | 292                     | 192                     |
| 14300                   | 7,86 | 278                     | 178                     |
| 14700                   | 8,50 | 263                     | 165                     |
| 15100                   | 9,22 | 249                     | 152                     |
| 15500                   | 10,0 | 236                     | 140                     |
| 16000                   | 11,0 | 222                     | 128                     |
| 16700                   | 12,7 | 201                     | 110                     |
| 16200                   | 14,7 | 168                     | 95,4                    |
| 15100                   | 16,1 | 143                     | 87,0                    |
| 14300                   | 17,4 | 125                     | 80,4                    |
| 13400                   | 18,9 | 108                     | 74,0                    |

## P2Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27000                   | 6,44 | 640                     | 217                     |
| 28500                   | 7,47 | 582                     | 187                     |
| 29000                   | 8,74 | 507                     | 160                     |
| 29000                   | 9,49 | 467                     | 148                     |
| 29000                   | 10,3 | 429                     | 136                     |
| 29000                   | 11,1 | 398                     | 126                     |
| 29000                   | 12,0 | 368                     | 116                     |
| 29000                   | 14,2 | 313                     | 98,9                    |
| 27700                   | 16,3 | 260                     | 86,1                    |
| 25300                   | 17,5 | 221                     | 80,2                    |
| 25500                   | 18,9 | 206                     | 74,2                    |
| 21400                   | 20,7 | 158                     | 67,8                    |

## P2Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 7,91 | 212                     | 177                     |
| 11000                   | 8,87 | 189                     | 158                     |
| 11000                   | 10,0 | 168                     | 140                     |
| 11000                   | 12,0 | 140                     | 117                     |
| 11000                   | 13,0 | 129                     | 108                     |
| 11000                   | 14,1 | 119                     | 99,2                    |
| 11000                   | 17,0 | 98,8                    | 82,4                    |
| 11000                   | 19,3 | 86,9                    | 72,4                    |
| 10700                   | 20,9 | 78,7                    | 67,1                    |
| 10100                   | 22,6 | 68,5                    | 62,0                    |
| 8570                    | 23,9 | 54,9                    | 58,7                    |
| 8760                    | 26,0 | 51,5                    | 53,9                    |

## P2Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16800                   | 7,96 | 322                     | 176                     |
| 17700                   | 9,23 | 292                     | 152                     |
| 18100                   | 9,96 | 278                     | 141                     |
| 18600                   | 10,8 | 263                     | 130                     |
| 19100                   | 11,7 | 250                     | 120                     |
| 19700                   | 12,7 | 236                     | 110                     |
| 20200                   | 13,9 | 222                     | 101                     |
| 21200                   | 16,1 | 201                     | 87,0                    |
| 20500                   | 18,6 | 168                     | 75,2                    |
| 19100                   | 20,4 | 143                     | 68,6                    |
| 18100                   | 22,1 | 125                     | 63,4                    |
| 17000                   | 24,0 | 108                     | 58,3                    |

## P2Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33500                   | 7,96 | 642                     | 176                     |
| 35200                   | 9,25 | 581                     | 151                     |
| 36000                   | 10,8 | 509                     | 130                     |
| 36000                   | 11,7 | 468                     | 119                     |
| 36000                   | 12,8 | 430                     | 110                     |
| 36000                   | 13,8 | 399                     | 102                     |
| 36000                   | 14,9 | 369                     | 94,0                    |
| 36000                   | 17,5 | 314                     | 79,9                    |
| 34300                   | 20,1 | 260                     | 69,6                    |
| 31300                   | 21,6 | 221                     | 64,8                    |
| 31600                   | 23,4 | 206                     | 59,9                    |
| 26500                   | 25,6 | 158                     | 54,8                    |

## 7.2 PZ GEAR REDUCER - 1400 rpm

## P2Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38700                   | 6,33 | 932                     | 221                     |
| 40600                   | 7,31 | 848                     | 192                     |
| 42700                   | 8,50 | 767                     | 165                     |
| 44600                   | 9,73 | 700                     | 144                     |
| 45900                   | 10,6 | 662                     | 132                     |
| 47200                   | 11,6 | 624                     | 121                     |
| 49400                   | 13,3 | 568                     | 105                     |
| 50700                   | 14,4 | 536                     | 97,0                    |
| 45200                   | 15,5 | 445                     | 90,2                    |
| 45700                   | 16,7 | 417                     | 83,7                    |
| 40100                   | 19,0 | 323                     | 73,9                    |
| 39200                   | 20,5 | 292                     | 68,4                    |

## P2Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70700                   | 6,62 | 1630                    | 211                     |
| 74100                   | 7,57 | 1490                    | 185                     |
| 77700                   | 8,72 | 1360                    | 161                     |
| 79600                   | 9,38 | 1300                    | 149                     |
| 81600                   | 10,1 | 1230                    | 138                     |
| 83800                   | 10,9 | 1170                    | 128                     |
| 87100                   | 12,3 | 1080                    | 114                     |
| 89200                   | 13,2 | 1030                    | 106                     |
| 86400                   | 15,2 | 865                     | 91,9                    |
| 73900                   | 17,2 | 656                     | 81,4                    |
| 74700                   | 18,6 | 613                     | 75,3                    |
| 73300                   | 20,2 | 554                     | 69,3                    |

## P2Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49700                   | 8,14 | 932                     | 172                     |
| 52200                   | 9,40 | 848                     | 149                     |
| 55000                   | 10,9 | 768                     | 128                     |
| 57400                   | 12,5 | 700                     | 112                     |
| 59000                   | 13,6 | 661                     | 103                     |
| 60700                   | 14,9 | 624                     | 94,3                    |
| 63600                   | 17,1 | 568                     | 81,9                    |
| 65200                   | 18,6 | 536                     | 75,4                    |
| 58100                   | 20,0 | 445                     | 70,2                    |
| 58800                   | 21,5 | 417                     | 65,1                    |
| 51600                   | 24,4 | 323                     | 57,5                    |
| 50300                   | 26,3 | 292                     | 53,2                    |

## P2Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 85500                   | 8,01 | 1630                    | 175                     |
| 89600                   | 9,16 | 1490                    | 153                     |
| 93900                   | 10,6 | 1360                    | 133                     |
| 96300                   | 11,4 | 1290                    | 123                     |
| 98700                   | 12,2 | 1230                    | 114                     |
| 101000                  | 13,2 | 1170                    | 106                     |
| 105000                  | 14,8 | 1080                    | 94,3                    |
| 108000                  | 16,0 | 1030                    | 87,6                    |
| 105000                  | 18,4 | 865                     | 75,9                    |
| 89400                   | 20,8 | 656                     | 67,3                    |
| 90300                   | 22,5 | 613                     | 62,2                    |
| 88700                   | 24,4 | 554                     | 57,3                    |

## 7.2 PZ GEAR REDUCER - 1400 rpm

## P3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 24,5 | 57,2                    | 57,0                    |
| 9000                    | 28,0 | 50,1                    | 50,0                    |
| 9000                    | 32,1 | 43,8                    | 43,7                    |
| 9000                    | 36,9 | 38,0                    | 37,9                    |
| 9000                    | 42,9 | 32,7                    | 32,6                    |
| 9000                    | 46,4 | 30,2                    | 30,2                    |
| 9000                    | 51,4 | 27,3                    | 27,2                    |
| 9000                    | 57,7 | 24,3                    | 24,3                    |
| 9000                    | 68,2 | 20,6                    | 20,5                    |
| 9000                    | 73,9 | 19,0                    | 18,9                    |
| 9000                    | 79,8 | 17,6                    | 17,6                    |
| 8840                    | 86,2 | 16,0                    | 16,2                    |

## P3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 22,6 | 131                     | 62,0                    |
| 19000                   | 25,1 | 118                     | 55,8                    |
| 19000                   | 28,7 | 103                     | 48,8                    |
| 19000                   | 33,0 | 89,7                    | 42,4                    |
| 19000                   | 38,3 | 77,3                    | 36,5                    |
| 19000                   | 41,5 | 71,5                    | 33,8                    |
| 19000                   | 49,8 | 59,5                    | 28,1                    |
| 19000                   | 57,8 | 51,2                    | 24,2                    |
| 18400                   | 62,7 | 45,8                    | 22,3                    |
| 16100                   | 70,5 | 35,6                    | 19,9                    |
| 15500                   | 75,3 | 32,1                    | 18,6                    |
| 14600                   | 81,3 | 28,0                    | 17,2                    |

## P3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 25,1 | 180                     | 55,9                    |
| 29000                   | 28,1 | 161                     | 49,9                    |
| 29000                   | 31,7 | 143                     | 44,2                    |
| 29000                   | 37,9 | 119                     | 36,9                    |
| 29000                   | 41,1 | 110                     | 34,0                    |
| 29000                   | 44,7 | 101                     | 31,3                    |
| 29000                   | 53,9 | 84,0                    | 26,0                    |
| 29000                   | 61,2 | 73,9                    | 22,9                    |
| 29000                   | 66,1 | 68,5                    | 21,2                    |
| 29000                   | 71,5 | 63,2                    | 19,6                    |
| 23900                   | 75,6 | 49,3                    | 18,5                    |
| 27200                   | 82,3 | 51,5                    | 17,0                    |

## P3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 30,5 | 56,3                    | 45,9                    |
| 11000                   | 34,8 | 49,4                    | 40,3                    |
| 11000                   | 39,8 | 43,1                    | 35,2                    |
| 11000                   | 45,9 | 37,4                    | 30,5                    |
| 11000                   | 53,3 | 32,2                    | 26,3                    |
| 11000                   | 57,7 | 29,8                    | 24,3                    |
| 11000                   | 63,9 | 26,9                    | 21,9                    |
| 11000                   | 71,7 | 23,9                    | 19,5                    |
| 11000                   | 84,7 | 20,2                    | 16,5                    |
| 11000                   | 91,8 | 18,7                    | 15,3                    |
| 11000                   | 99,1 | 17,3                    | 14,1                    |
| 11000                   | 107  | 16,0                    | 13,1                    |

## P3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 28,6 | 131                     | 48,9                    |
| 24000                   | 31,8 | 118                     | 44,0                    |
| 24000                   | 36,4 | 103                     | 38,5                    |
| 24000                   | 41,9 | 89,4                    | 33,4                    |
| 24000                   | 48,6 | 77,0                    | 28,8                    |
| 24000                   | 52,6 | 71,2                    | 26,6                    |
| 24000                   | 63,1 | 59,3                    | 22,2                    |
| 24000                   | 73,3 | 51,1                    | 19,1                    |
| 23300                   | 79,4 | 45,7                    | 17,6                    |
| 20500                   | 89,4 | 35,7                    | 15,7                    |
| 19700                   | 95,4 | 32,2                    | 14,7                    |
| 18500                   | 103  | 28,0                    | 13,6                    |

## P3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 31,0 | 181                     | 45,1                    |
| 36000                   | 34,8 | 162                     | 40,3                    |
| 36000                   | 39,2 | 143                     | 35,7                    |
| 36000                   | 46,9 | 120                     | 29,8                    |
| 36000                   | 50,9 | 110                     | 27,5                    |
| 36000                   | 55,3 | 101                     | 25,3                    |
| 36000                   | 66,6 | 84,3                    | 21,0                    |
| 36000                   | 75,7 | 74,1                    | 18,5                    |
| 36000                   | 81,7 | 68,7                    | 17,1                    |
| 36000                   | 88,5 | 63,4                    | 15,8                    |
| 29600                   | 93,5 | 49,3                    | 15,0                    |
| 33700                   | 102  | 51,5                    | 13,7                    |

## 7.2 PZ GEAR REDUCER - 1400 rpm

## P3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 24,3 | 353                     | 57,7                    |
| 55000                   | 28,2 | 305                     | 49,7                    |
| 55000                   | 30,4 | 282                     | 46,1                    |
| 55000                   | 32,9 | 261                     | 42,6                    |
| 55000                   | 35,7 | 240                     | 39,2                    |
| 55000                   | 38,8 | 221                     | 36,1                    |
| 55000                   | 42,4 | 203                     | 33,1                    |
| 55000                   | 49,1 | 175                     | 28,5                    |
| 55000                   | 56,8 | 151                     | 24,7                    |
| 55000                   | 62,3 | 138                     | 22,5                    |
| 54100                   | 67,4 | 125                     | 20,8                    |
| 50700                   | 73,2 | 108                     | 19,1                    |

## P3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 24,9 | 563                     | 56,1                    |
| 90000                   | 29,0 | 485                     | 48,3                    |
| 90000                   | 33,9 | 414                     | 41,3                    |
| 90000                   | 36,8 | 382                     | 38,1                    |
| 90000                   | 40,0 | 351                     | 35,0                    |
| 90000                   | 43,2 | 325                     | 32,4                    |
| 90000                   | 46,6 | 301                     | 30,0                    |
| 90000                   | 54,9 | 256                     | 25,5                    |
| 90000                   | 63,0 | 223                     | 22,2                    |
| 90000                   | 67,6 | 208                     | 20,7                    |
| 90000                   | 73,2 | 192                     | 19,1                    |
| 81300                   | 80,0 | 158                     | 17,5                    |

## P3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 31,2 | 350                     | 44,8                    |
| 70000                   | 36,2 | 302                     | 38,7                    |
| 70000                   | 39,1 | 279                     | 35,8                    |
| 70000                   | 42,3 | 258                     | 33,1                    |
| 70000                   | 45,9 | 238                     | 30,5                    |
| 70000                   | 49,9 | 219                     | 28,1                    |
| 70000                   | 54,5 | 200                     | 25,7                    |
| 70000                   | 63,1 | 173                     | 22,2                    |
| 70000                   | 73,0 | 150                     | 19,2                    |
| 70000                   | 80,1 | 136                     | 17,5                    |
| 69600                   | 86,6 | 125                     | 16,2                    |
| 65200                   | 94,1 | 108                     | 14,9                    |

## P3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 30,2 | 569                     | 46,4                    |
| 110000                  | 35,0 | 490                     | 40,0                    |
| 110000                  | 41,0 | 419                     | 34,2                    |
| 110000                  | 44,5 | 386                     | 31,5                    |
| 110000                  | 48,4 | 354                     | 28,9                    |
| 110000                  | 52,2 | 328                     | 26,8                    |
| 110000                  | 56,4 | 304                     | 24,8                    |
| 110000                  | 66,4 | 258                     | 21,1                    |
| 110000                  | 76,2 | 225                     | 18,4                    |
| 110000                  | 81,8 | 210                     | 17,1                    |
| 110000                  | 88,5 | 194                     | 15,8                    |
| 98300                   | 96,8 | 158                     | 14,5                    |

P4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 87,8 | 34,5                    | 15,9        |
| 19000                   | 93,4 | 32,4                    | 15,0        |
| 19000                   | 106  | 28,6                    | 13,2        |
| 19000                   | 121  | 25,0                    | 11,6        |
| 19000                   | 139  | 21,8                    | 10,1        |
| 19000                   | 161  | 18,9                    | 8,72        |
| 19000                   | 188  | 16,1                    | 7,45        |
| 19000                   | 204  | 14,8                    | 6,85        |
| 19000                   | 224  | 13,5                    | 6,25        |
| 19000                   | 243  | 12,5                    | 5,77        |
| 19000                   | 293  | 10,3                    | 4,78        |
| 19000                   | 318  | 9,52                    | 4,40        |

P4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 96,5 | 47,9                    | 14,5        |
| 29000                   | 110  | 42,0                    | 12,7        |
| 29000                   | 126  | 36,6                    | 11,1        |
| 29000                   | 145  | 31,8                    | 9,64        |
| 29000                   | 169  | 27,4                    | 8,29        |
| 29000                   | 183  | 25,3                    | 7,67        |
| 29000                   | 202  | 22,8                    | 6,92        |
| 29000                   | 227  | 20,4                    | 6,17        |
| 29000                   | 268  | 17,2                    | 5,22        |
| 29000                   | 291  | 15,9                    | 4,82        |
| 29000                   | 314  | 14,7                    | 4,46        |
| 29000                   | 339  | 13,6                    | 4,13        |

P4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55000                   | 87,4 | 100                     | 16,0        |
| 55000                   | 97,0 | 90,3                    | 14,4        |
| 55000                   | 111  | 79,0                    | 12,6        |
| 55000                   | 128  | 68,6                    | 11,0        |
| 55000                   | 148  | 59,1                    | 9,44        |
| 55000                   | 160  | 54,7                    | 8,73        |
| 55000                   | 192  | 45,5                    | 7,27        |
| 55000                   | 224  | 39,2                    | 6,26        |
| 55000                   | 242  | 36,2                    | 5,78        |
| 55000                   | 273  | 32,2                    | 5,14        |
| 53400                   | 291  | 29,2                    | 4,81        |
| 55000                   | 314  | 27,9                    | 4,46        |

P4Z 249

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 24000                   | 111 | 34,4                    | 12,6        |
| 24000                   | 118 | 32,3                    | 11,8        |
| 24000                   | 134 | 28,5                    | 10,4        |
| 24000                   | 153 | 24,9                    | 9,13        |
| 24000                   | 176 | 21,7                    | 7,96        |
| 24000                   | 204 | 18,8                    | 6,88        |
| 24000                   | 238 | 16,1                    | 5,88        |
| 24000                   | 259 | 14,8                    | 5,40        |
| 24000                   | 284 | 13,5                    | 4,93        |
| 24000                   | 308 | 12,4                    | 4,55        |
| 24000                   | 371 | 10,3                    | 3,77        |
| 24000                   | 403 | 9,49                    | 3,47        |

P4Z 279

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 36000                   | 119 | 48,0                    | 11,7        |
| 36000                   | 136 | 42,1                    | 10,3        |
| 36000                   | 156 | 36,8                    | 8,97        |
| 36000                   | 180 | 31,9                    | 7,79        |
| 36000                   | 209 | 27,5                    | 6,70        |
| 36000                   | 226 | 25,4                    | 6,20        |
| 36000                   | 250 | 22,9                    | 5,59        |
| 36000                   | 281 | 20,4                    | 4,98        |
| 36000                   | 332 | 17,3                    | 4,22        |
| 36000                   | 360 | 16,0                    | 3,89        |
| 36000                   | 388 | 14,8                    | 3,61        |
| 36000                   | 419 | 13,7                    | 3,34        |

P4Z 349

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 70000                   | 112 | 99,3                    | 12,5        |
| 70000                   | 125 | 89,4                    | 11,2        |
| 70000                   | 143 | 78,2                    | 9,81        |
| 70000                   | 164 | 67,9                    | 8,52        |
| 70000                   | 191 | 58,5                    | 7,34        |
| 70000                   | 206 | 54,1                    | 6,79        |
| 70000                   | 247 | 45,1                    | 5,66        |
| 70000                   | 287 | 38,8                    | 4,87        |
| 70000                   | 312 | 35,8                    | 4,49        |
| 70000                   | 350 | 31,8                    | 3,99        |
| 68700                   | 374 | 29,3                    | 3,74        |
| 70000                   | 404 | 27,6                    | 3,47        |

## 7.2 PZ GEAR REDUCER - 1400 rpm

## P4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 97,1 | 148                     | 14,4                    |
| 90000                   | 109  | 132                     | 12,9                    |
| 90000                   | 123  | 117                     | 11,4                    |
| 90000                   | 147  | 97,6                    | 9,52                    |
| 90000                   | 159  | 90,0                    | 8,79                    |
| 90000                   | 173  | 82,8                    | 8,08                    |
| 90000                   | 209  | 68,7                    | 6,71                    |
| 90000                   | 237  | 60,5                    | 5,90                    |
| 90000                   | 256  | 56,0                    | 5,47                    |
| 90000                   | 277  | 51,7                    | 5,05                    |
| 90000                   | 293  | 49,0                    | 4,78                    |
| 90000                   | 319  | 45,0                    | 4,39                    |

## P4Z 409

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 110000                  | 117 | 149                     | 11,9                    |
| 110000                  | 132 | 133                     | 10,6                    |
| 110000                  | 149 | 118                     | 9,42                    |
| 110000                  | 178 | 98,6                    | 7,87                    |
| 110000                  | 193 | 90,9                    | 7,26                    |
| 110000                  | 210 | 83,6                    | 6,68                    |
| 110000                  | 252 | 69,4                    | 5,55                    |
| 110000                  | 287 | 61,1                    | 4,88                    |
| 110000                  | 310 | 56,6                    | 4,52                    |
| 110000                  | 335 | 52,3                    | 4,18                    |
| 110000                  | 354 | 49,4                    | 3,95                    |
| 110000                  | 386 | 45,4                    | 3,63                    |

## 7.3 PZ GEAR REDUCER - 1140 rpm

## P2Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 6,37 | 176                     | 179                     |
| 9000                    | 7,14 | 157                     | 160                     |
| 9000                    | 8,06 | 139                     | 141                     |
| 9000                    | 9,64 | 116                     | 118                     |
| 9000                    | 10,5 | 107                     | 109                     |
| 9000                    | 11,4 | 98,4                    | 100                     |
| 9000                    | 13,7 | 81,7                    | 83,3                    |
| 9000                    | 15,6 | 71,9                    | 73,3                    |
| 8640                    | 16,8 | 64,0                    | 67,9                    |
| 8160                    | 18,2 | 55,8                    | 62,7                    |
| 6900                    | 19,2 | 44,7                    | 59,3                    |
| 7050                    | 20,9 | 41,9                    | 54,5                    |

## P2Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13300                   | 6,28 | 262                     | 182                     |
| 13900                   | 7,28 | 237                     | 157                     |
| 14300                   | 7,86 | 226                     | 145                     |
| 14700                   | 8,50 | 214                     | 134                     |
| 15100                   | 9,22 | 203                     | 124                     |
| 15500                   | 10,0 | 192                     | 114                     |
| 16000                   | 11,0 | 181                     | 104                     |
| 16700                   | 12,7 | 164                     | 89,8                    |
| 16200                   | 14,7 | 137                     | 77,7                    |
| 15100                   | 16,1 | 116                     | 70,8                    |
| 14300                   | 17,4 | 102                     | 65,4                    |
| 13400                   | 18,9 | 88,0                    | 60,2                    |

## P2Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27000                   | 6,44 | 521                     | 177                     |
| 28500                   | 7,47 | 474                     | 153                     |
| 29000                   | 8,74 | 413                     | 130                     |
| 29000                   | 9,49 | 380                     | 120                     |
| 29000                   | 10,3 | 349                     | 110                     |
| 29000                   | 11,1 | 324                     | 102                     |
| 29000                   | 12,0 | 300                     | 94,8                    |
| 29000                   | 14,2 | 255                     | 80,5                    |
| 27700                   | 16,3 | 212                     | 70,1                    |
| 25300                   | 17,5 | 180                     | 65,3                    |
| 25500                   | 18,9 | 168                     | 60,4                    |
| 21400                   | 20,7 | 129                     | 55,2                    |

## P2Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 7,91 | 173                     | 144                     |
| 11000                   | 8,87 | 154                     | 129                     |
| 11000                   | 10,0 | 137                     | 114                     |
| 11000                   | 12,0 | 114                     | 95,2                    |
| 11000                   | 13,0 | 105                     | 87,8                    |
| 11000                   | 14,1 | 96,9                    | 80,7                    |
| 11000                   | 17,0 | 80,5                    | 67,1                    |
| 11000                   | 19,3 | 70,8                    | 59,0                    |
| 10700                   | 20,9 | 64,1                    | 54,7                    |
| 10100                   | 22,6 | 55,8                    | 50,5                    |
| 8570                    | 23,9 | 44,7                    | 47,8                    |
| 8760                    | 26,0 | 41,9                    | 43,9                    |

## P2Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16800                   | 7,96 | 262                     | 143                     |
| 17700                   | 9,23 | 238                     | 124                     |
| 18100                   | 9,96 | 226                     | 114                     |
| 18600                   | 10,8 | 215                     | 106                     |
| 19100                   | 11,7 | 203                     | 97,5                    |
| 19700                   | 12,7 | 192                     | 89,6                    |
| 20200                   | 13,9 | 181                     | 82,1                    |
| 21200                   | 16,1 | 164                     | 70,9                    |
| 20500                   | 18,6 | 137                     | 61,2                    |
| 19100                   | 20,4 | 116                     | 55,9                    |
| 18100                   | 22,1 | 102                     | 51,6                    |
| 17000                   | 24,0 | 88,1                    | 47,5                    |

## P2Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33500                   | 7,96 | 523                     | 143                     |
| 35200                   | 9,25 | 473                     | 123                     |
| 36000                   | 10,8 | 414                     | 105                     |
| 36000                   | 11,7 | 381                     | 97,1                    |
| 36000                   | 12,8 | 350                     | 89,2                    |
| 36000                   | 13,8 | 325                     | 82,7                    |
| 36000                   | 14,9 | 301                     | 76,6                    |
| 36000                   | 17,5 | 256                     | 65,1                    |
| 34300                   | 20,1 | 212                     | 56,7                    |
| 31300                   | 21,6 | 180                     | 52,8                    |
| 31600                   | 23,4 | 168                     | 48,8                    |
| 26500                   | 25,6 | 129                     | 44,6                    |

## 7.3 PZ GEAR REDUCER - 1140 rpm

## P2Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38700                   | 6,33 | 759                     | 180                     |
| 40600                   | 7,31 | 691                     | 156                     |
| 42700                   | 8,50 | 625                     | 134                     |
| 44600                   | 9,73 | 570                     | 117                     |
| 45900                   | 10,6 | 539                     | 108                     |
| 47200                   | 11,6 | 508                     | 98,7                    |
| 49400                   | 13,3 | 462                     | 85,8                    |
| 50700                   | 14,4 | 437                     | 78,9                    |
| 45200                   | 15,5 | 362                     | 73,5                    |
| 45700                   | 16,7 | 340                     | 68,1                    |
| 40100                   | 19,0 | 263                     | 60,2                    |
| 39200                   | 20,5 | 238                     | 55,7                    |

## P2Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70700                   | 6,62 | 1330                    | 172                     |
| 74100                   | 7,57 | 1220                    | 151                     |
| 77700                   | 8,72 | 1110                    | 131                     |
| 79600                   | 9,38 | 1060                    | 122                     |
| 81600                   | 10,1 | 1000                    | 113                     |
| 83800                   | 10,9 | 952                     | 104                     |
| 87100                   | 12,3 | 882                     | 92,9                    |
| 89200                   | 13,2 | 839                     | 86,2                    |
| 86400                   | 15,2 | 705                     | 74,8                    |
| 73900                   | 17,2 | 534                     | 66,3                    |
| 74700                   | 18,6 | 499                     | 61,3                    |
| 73300                   | 20,2 | 451                     | 56,4                    |

## P2Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49700                   | 8,14 | 759                     | 140                     |
| 52200                   | 9,40 | 691                     | 121                     |
| 55000                   | 10,9 | 626                     | 104                     |
| 57400                   | 12,5 | 570                     | 91,1                    |
| 59000                   | 13,6 | 539                     | 83,8                    |
| 60700                   | 14,9 | 508                     | 76,8                    |
| 63600                   | 17,1 | 463                     | 66,7                    |
| 65200                   | 18,6 | 436                     | 61,4                    |
| 58100                   | 20,0 | 362                     | 57,1                    |
| 58800                   | 21,5 | 339                     | 53,0                    |
| 51600                   | 24,4 | 263                     | 46,8                    |
| 50300                   | 26,3 | 238                     | 43,3                    |

## P2Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 85500                   | 8,01 | 1330                    | 142                     |
| 89600                   | 9,16 | 1220                    | 124                     |
| 93900                   | 10,6 | 1110                    | 108                     |
| 96300                   | 11,4 | 1050                    | 100                     |
| 98700                   | 12,2 | 1000                    | 93,1                    |
| 101000                  | 13,2 | 951                     | 86,1                    |
| 105000                  | 14,8 | 882                     | 76,8                    |
| 108000                  | 16,0 | 839                     | 71,3                    |
| 105000                  | 18,4 | 705                     | 61,8                    |
| 89400                   | 20,8 | 534                     | 54,8                    |
| 90300                   | 22,5 | 499                     | 50,7                    |
| 88700                   | 24,4 | 451                     | 46,6                    |

P3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 24,5 | 46,6                    | 46,5                    |
| 9000                    | 28,0 | 40,8                    | 40,7                    |
| 9000                    | 32,1 | 35,6                    | 35,6                    |
| 9000                    | 36,9 | 30,9                    | 30,9                    |
| 9000                    | 42,9 | 26,6                    | 26,6                    |
| 9000                    | 46,4 | 24,6                    | 24,6                    |
| 9000                    | 51,4 | 22,2                    | 22,2                    |
| 9000                    | 57,7 | 19,8                    | 19,8                    |
| 9000                    | 68,2 | 16,8                    | 16,7                    |
| 9000                    | 73,9 | 15,5                    | 15,4                    |
| 9000                    | 79,8 | 14,3                    | 14,3                    |
| 8840                    | 86,2 | 13,0                    | 13,2                    |

P3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 22,6 | 107                     | 50,5                    |
| 19000                   | 25,1 | 96,2                    | 45,4                    |
| 19000                   | 28,7 | 84,1                    | 39,7                    |
| 19000                   | 33,0 | 73,0                    | 34,5                    |
| 19000                   | 38,3 | 62,9                    | 29,7                    |
| 19000                   | 41,5 | 58,2                    | 27,5                    |
| 19000                   | 49,8 | 48,5                    | 22,9                    |
| 19000                   | 57,8 | 41,7                    | 19,7                    |
| 18400                   | 62,7 | 37,3                    | 18,2                    |
| 16100                   | 70,5 | 29,0                    | 16,2                    |
| 15500                   | 75,3 | 26,2                    | 15,1                    |
| 14600                   | 81,3 | 22,8                    | 14,0                    |

P3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 25,1 | 147                     | 45,5                    |
| 29000                   | 28,1 | 131                     | 40,6                    |
| 29000                   | 31,7 | 116                     | 36,0                    |
| 29000                   | 37,9 | 97,1                    | 30,1                    |
| 29000                   | 41,1 | 89,6                    | 27,7                    |
| 29000                   | 44,7 | 82,4                    | 25,5                    |
| 29000                   | 53,9 | 68,4                    | 21,2                    |
| 29000                   | 61,2 | 60,2                    | 18,6                    |
| 29000                   | 66,1 | 55,8                    | 17,3                    |
| 29000                   | 71,5 | 51,5                    | 15,9                    |
| 23900                   | 75,6 | 40,2                    | 15,1                    |
| 27200                   | 82,3 | 42,0                    | 13,9                    |

P3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 30,5 | 45,8                    | 37,4                    |
| 11000                   | 34,8 | 40,2                    | 32,8                    |
| 11000                   | 39,8 | 35,1                    | 28,6                    |
| 11000                   | 45,9 | 30,4                    | 24,8                    |
| 11000                   | 53,3 | 26,2                    | 21,4                    |
| 11000                   | 57,7 | 24,2                    | 19,8                    |
| 11000                   | 63,9 | 21,9                    | 17,8                    |
| 11000                   | 71,7 | 19,5                    | 15,9                    |
| 11000                   | 84,7 | 16,5                    | 13,5                    |
| 11000                   | 91,8 | 15,2                    | 12,4                    |
| 11000                   | 99,1 | 14,1                    | 11,5                    |
| 11000                   | 107  | 13,0                    | 10,6                    |

P3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 28,6 | 106                     | 39,8                    |
| 24000                   | 31,8 | 95,8                    | 35,8                    |
| 24000                   | 36,4 | 83,8                    | 31,3                    |
| 24000                   | 41,9 | 72,8                    | 27,2                    |
| 24000                   | 48,6 | 62,7                    | 23,5                    |
| 24000                   | 52,6 | 58,0                    | 21,7                    |
| 24000                   | 63,1 | 48,3                    | 18,1                    |
| 24000                   | 73,3 | 41,6                    | 15,6                    |
| 23300                   | 79,4 | 37,2                    | 14,4                    |
| 20500                   | 89,4 | 29,1                    | 12,8                    |
| 19700                   | 95,4 | 26,2                    | 11,9                    |
| 18500                   | 103  | 22,8                    | 11,1                    |

P3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 31,0 | 147                     | 36,8                    |
| 36000                   | 34,8 | 132                     | 32,8                    |
| 36000                   | 39,2 | 117                     | 29,1                    |
| 36000                   | 46,9 | 97,4                    | 24,3                    |
| 36000                   | 50,9 | 89,9                    | 22,4                    |
| 36000                   | 55,3 | 82,6                    | 20,6                    |
| 36000                   | 66,6 | 68,6                    | 17,1                    |
| 36000                   | 75,7 | 60,4                    | 15,1                    |
| 36000                   | 81,7 | 55,9                    | 14,0                    |
| 36000                   | 88,5 | 51,7                    | 12,9                    |
| 29600                   | 93,5 | 40,1                    | 12,2                    |
| 33700                   | 102  | 42,0                    | 11,2                    |

## 7.3 PZ GEAR REDUCER - 1140 rpm

## P3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 24,3 | 288                     | 47,0                    |
| 55000                   | 28,2 | 248                     | 40,5                    |
| 55000                   | 30,4 | 230                     | 37,5                    |
| 55000                   | 32,9 | 212                     | 34,7                    |
| 55000                   | 35,7 | 196                     | 32,0                    |
| 55000                   | 38,8 | 180                     | 29,4                    |
| 55000                   | 42,4 | 165                     | 26,9                    |
| 55000                   | 49,1 | 142                     | 23,2                    |
| 55000                   | 56,8 | 123                     | 20,1                    |
| 55000                   | 62,3 | 112                     | 18,3                    |
| 54100                   | 67,4 | 102                     | 16,9                    |
| 50700                   | 73,2 | 87,9                    | 15,6                    |

## P3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 24,9 | 458                     | 45,7                    |
| 90000                   | 29,0 | 395                     | 39,4                    |
| 90000                   | 33,9 | 337                     | 33,7                    |
| 90000                   | 36,8 | 311                     | 31,0                    |
| 90000                   | 40,0 | 286                     | 28,5                    |
| 90000                   | 43,2 | 265                     | 26,4                    |
| 90000                   | 46,6 | 245                     | 24,5                    |
| 90000                   | 54,9 | 208                     | 20,8                    |
| 90000                   | 63,0 | 181                     | 18,1                    |
| 90000                   | 67,6 | 169                     | 16,9                    |
| 90000                   | 73,2 | 156                     | 15,6                    |
| 81300                   | 80,0 | 129                     | 14,2                    |

## P3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 31,2 | 285                     | 36,5                    |
| 70000                   | 36,2 | 246                     | 31,5                    |
| 70000                   | 39,1 | 227                     | 29,2                    |
| 70000                   | 42,3 | 210                     | 27,0                    |
| 70000                   | 45,9 | 194                     | 24,9                    |
| 70000                   | 49,9 | 178                     | 22,9                    |
| 70000                   | 54,5 | 163                     | 20,9                    |
| 70000                   | 63,1 | 141                     | 18,1                    |
| 70000                   | 73,0 | 122                     | 15,6                    |
| 70000                   | 80,1 | 111                     | 14,2                    |
| 69600                   | 86,6 | 102                     | 13,2                    |
| 65200                   | 94,1 | 88,0                    | 12,1                    |

## P3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 30,2 | 463                     | 37,8                    |
| 110000                  | 35,0 | 399                     | 32,5                    |
| 110000                  | 41,0 | 341                     | 27,8                    |
| 110000                  | 44,5 | 314                     | 25,6                    |
| 110000                  | 48,4 | 289                     | 23,6                    |
| 110000                  | 52,2 | 267                     | 21,8                    |
| 110000                  | 56,4 | 248                     | 20,2                    |
| 110000                  | 66,4 | 210                     | 17,2                    |
| 110000                  | 76,2 | 183                     | 15,0                    |
| 110000                  | 81,8 | 171                     | 13,9                    |
| 110000                  | 88,5 | 158                     | 12,9                    |
| 98300                   | 96,8 | 129                     | 11,8                    |

## 7.3 PZ GEAR REDUCER - 1140 rpm

## P4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 87,8 | 28,1                    | 13,0                    |
| 19000                   | 93,4 | 26,4                    | 12,2                    |
| 19000                   | 106  | 23,3                    | 10,8                    |
| 19000                   | 121  | 20,4                    | 9,43                    |
| 19000                   | 139  | 17,8                    | 8,22                    |
| 19000                   | 161  | 15,3                    | 7,10                    |
| 19000                   | 188  | 13,1                    | 6,07                    |
| 19000                   | 204  | 12,1                    | 5,58                    |
| 19000                   | 224  | 11,0                    | 5,09                    |
| 19000                   | 243  | 10,2                    | 4,69                    |
| 19000                   | 293  | 8,42                    | 3,89                    |
| 19000                   | 318  | 7,75                    | 3,58                    |

## P4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 96,5 | 39,0                    | 11,8                    |
| 29000                   | 110  | 34,2                    | 10,4                    |
| 29000                   | 126  | 29,8                    | 9,04                    |
| 29000                   | 145  | 25,9                    | 7,85                    |
| 29000                   | 169  | 22,3                    | 6,75                    |
| 29000                   | 183  | 20,6                    | 6,24                    |
| 29000                   | 202  | 18,6                    | 5,64                    |
| 29000                   | 227  | 16,6                    | 5,02                    |
| 29000                   | 268  | 14,0                    | 4,25                    |
| 29000                   | 291  | 12,9                    | 3,92                    |
| 29000                   | 314  | 12,0                    | 3,63                    |
| 29000                   | 339  | 11,1                    | 3,36                    |

## P4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 87,4 | 81,7                    | 13,0                    |
| 55000                   | 97,0 | 73,6                    | 11,8                    |
| 55000                   | 111  | 64,3                    | 10,3                    |
| 55000                   | 128  | 55,9                    | 8,92                    |
| 55000                   | 148  | 48,1                    | 7,69                    |
| 55000                   | 160  | 44,5                    | 7,11                    |
| 55000                   | 192  | 37,1                    | 5,92                    |
| 55000                   | 224  | 31,9                    | 5,10                    |
| 55000                   | 242  | 29,5                    | 4,71                    |
| 55000                   | 273  | 26,2                    | 4,18                    |
| 53400                   | 291  | 23,8                    | 3,92                    |
| 55000                   | 314  | 22,7                    | 3,63                    |

## P4Z 249

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 24000                   | 111 | 28,0                    | 10,2                    |
| 24000                   | 118 | 26,3                    | 9,63                    |
| 24000                   | 134 | 23,2                    | 8,48                    |
| 24000                   | 153 | 20,3                    | 7,44                    |
| 24000                   | 176 | 17,7                    | 6,48                    |
| 24000                   | 204 | 15,3                    | 5,60                    |
| 24000                   | 238 | 13,1                    | 4,78                    |
| 24000                   | 259 | 12,0                    | 4,40                    |
| 24000                   | 284 | 11,0                    | 4,01                    |
| 24000                   | 308 | 10,1                    | 3,70                    |
| 24000                   | 371 | 8,38                    | 3,07                    |
| 24000                   | 403 | 7,72                    | 2,83                    |

## P4Z 279

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 36000                   | 119 | 39,1                    | 9,54                    |
| 36000                   | 136 | 34,3                    | 8,37                    |
| 36000                   | 156 | 29,9                    | 7,31                    |
| 36000                   | 180 | 26,0                    | 6,34                    |
| 36000                   | 209 | 22,4                    | 5,46                    |
| 36000                   | 226 | 20,7                    | 5,05                    |
| 36000                   | 250 | 18,7                    | 4,56                    |
| 36000                   | 281 | 16,6                    | 4,06                    |
| 36000                   | 332 | 14,1                    | 3,43                    |
| 36000                   | 360 | 13,0                    | 3,17                    |
| 36000                   | 388 | 12,0                    | 2,94                    |
| 36000                   | 419 | 11,1                    | 2,72                    |

## P4Z 349

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 70000                   | 112 | 80,9                    | 10,1                    |
| 70000                   | 125 | 72,8                    | 9,14                    |
| 70000                   | 143 | 63,6                    | 7,99                    |
| 70000                   | 164 | 55,3                    | 6,94                    |
| 70000                   | 191 | 47,6                    | 5,98                    |
| 70000                   | 206 | 44,1                    | 5,53                    |
| 70000                   | 247 | 36,7                    | 4,61                    |
| 70000                   | 287 | 31,6                    | 3,97                    |
| 70000                   | 312 | 29,2                    | 3,66                    |
| 70000                   | 350 | 25,9                    | 3,25                    |
| 68700                   | 374 | 23,8                    | 3,05                    |
| 70000                   | 404 | 22,5                    | 2,82                    |

## 7.3 PZ GEAR REDUCER - 1140 rpm

## P4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 97,1 | 120                     | 11,7                    |
| 90000                   | 109  | 107                     | 10,5                    |
| 90000                   | 123  | 95,1                    | 9,28                    |
| 90000                   | 147  | 79,4                    | 7,76                    |
| 90000                   | 159  | 73,3                    | 7,15                    |
| 90000                   | 173  | 67,4                    | 6,58                    |
| 90000                   | 209  | 56,0                    | 5,46                    |
| 90000                   | 237  | 49,2                    | 4,81                    |
| 90000                   | 256  | 45,6                    | 4,45                    |
| 90000                   | 277  | 42,1                    | 4,11                    |
| 90000                   | 293  | 39,9                    | 3,89                    |
| 90000                   | 319  | 36,6                    | 3,57                    |

## P4Z 409

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 110000                  | 117 | 121                     | 9,70                    |
| 110000                  | 132 | 108                     | 8,66                    |
| 110000                  | 149 | 96,0                    | 7,67                    |
| 110000                  | 178 | 80,3                    | 6,41                    |
| 110000                  | 193 | 74,0                    | 5,91                    |
| 110000                  | 210 | 68,1                    | 5,44                    |
| 110000                  | 252 | 56,5                    | 4,52                    |
| 110000                  | 287 | 49,7                    | 3,97                    |
| 110000                  | 310 | 46,1                    | 3,68                    |
| 110000                  | 335 | 42,6                    | 3,40                    |
| 110000                  | 354 | 40,2                    | 3,22                    |
| 110000                  | 386 | 37,0                    | 2,95                    |

## 7.4 PZ GEAR REDUCER - 900 rpm

## P2Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 6,37 | 139                     | 141                     |
| 9000                    | 7,14 | 124                     | 126                     |
| 9000                    | 8,06 | 110                     | 112                     |
| 9000                    | 9,64 | 91,7                    | 93,4                    |
| 9000                    | 10,5 | 84,5                    | 86,1                    |
| 9000                    | 11,4 | 77,7                    | 79,2                    |
| 9000                    | 13,7 | 64,5                    | 65,7                    |
| 9000                    | 15,6 | 56,8                    | 57,8                    |
| 8770                    | 16,8 | 51,3                    | 53,6                    |
| 8280                    | 18,2 | 44,7                    | 49,5                    |
| 6990                    | 19,2 | 35,7                    | 46,9                    |
| 7170                    | 20,9 | 33,6                    | 43,0                    |

## P2Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15100                   | 6,28 | 236                     | 143                     |
| 15900                   | 7,28 | 214                     | 124                     |
| 16300                   | 7,86 | 204                     | 115                     |
| 16800                   | 8,50 | 193                     | 106                     |
| 17200                   | 9,22 | 183                     | 97,6                    |
| 17700                   | 10,0 | 173                     | 89,7                    |
| 18200                   | 11,0 | 163                     | 82,2                    |
| 17500                   | 12,7 | 135                     | 70,9                    |
| 16400                   | 14,7 | 110                     | 61,3                    |
| 15300                   | 16,1 | 93,0                    | 55,9                    |
| 14500                   | 17,4 | 81,7                    | 51,7                    |
| 13600                   | 18,9 | 70,5                    | 47,5                    |

## P2Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 6,44 | 442                     | 140                     |
| 29000                   | 7,47 | 381                     | 120                     |
| 29000                   | 8,74 | 326                     | 103                     |
| 29000                   | 9,49 | 300                     | 94,8                    |
| 29000                   | 10,3 | 276                     | 87,1                    |
| 29000                   | 11,1 | 256                     | 80,8                    |
| 29000                   | 12,0 | 237                     | 74,8                    |
| 29000                   | 14,2 | 201                     | 63,6                    |
| 28100                   | 16,3 | 169                     | 55,4                    |
| 25700                   | 17,5 | 145                     | 51,6                    |
| 25900                   | 18,9 | 134                     | 47,7                    |
| 21700                   | 20,7 | 103                     | 43,6                    |

## P2Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 7,91 | 137                     | 114                     |
| 11000                   | 8,87 | 122                     | 101                     |
| 11000                   | 10,0 | 108                     | 89,9                    |
| 11000                   | 12,0 | 90,1                    | 75,1                    |
| 11000                   | 13,0 | 83,2                    | 69,3                    |
| 11000                   | 14,1 | 76,5                    | 63,7                    |
| 11000                   | 17,0 | 63,5                    | 52,9                    |
| 11000                   | 19,3 | 55,9                    | 46,6                    |
| 10900                   | 20,9 | 51,3                    | 43,2                    |
| 10300                   | 22,6 | 44,7                    | 39,8                    |
| 8680                    | 23,9 | 35,7                    | 37,7                    |
| 8910                    | 26,0 | 33,7                    | 34,6                    |

## P2Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19200                   | 7,96 | 237                     | 113                     |
| 20200                   | 9,23 | 214                     | 97,5                    |
| 20700                   | 9,96 | 204                     | 90,4                    |
| 21300                   | 10,8 | 194                     | 83,5                    |
| 21800                   | 11,7 | 183                     | 77,0                    |
| 22400                   | 12,7 | 173                     | 70,8                    |
| 23100                   | 13,9 | 163                     | 64,8                    |
| 22200                   | 16,1 | 135                     | 55,9                    |
| 20800                   | 18,6 | 110                     | 48,3                    |
| 19300                   | 20,4 | 92,8                    | 44,1                    |
| 18300                   | 22,1 | 81,3                    | 40,7                    |
| 17200                   | 24,0 | 70,4                    | 37,5                    |

## P2Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 7,96 | 444                     | 113                     |
| 36000                   | 9,25 | 382                     | 97,3                    |
| 36000                   | 10,8 | 327                     | 83,3                    |
| 36000                   | 11,7 | 301                     | 76,7                    |
| 36000                   | 12,8 | 277                     | 70,4                    |
| 36000                   | 13,8 | 256                     | 65,3                    |
| 36000                   | 14,9 | 237                     | 60,4                    |
| 36000                   | 17,5 | 202                     | 51,4                    |
| 34700                   | 20,1 | 169                     | 44,7                    |
| 31800                   | 21,6 | 144                     | 41,7                    |
| 32000                   | 23,4 | 134                     | 38,5                    |
| 26900                   | 25,6 | 103                     | 35,2                    |

## 7.4 PZ GEAR REDUCER - 900 rpm

## P2Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 44200                   | 6,33 | 685                     | 142                     |
| 46400                   | 7,31 | 622                     | 123                     |
| 48800                   | 8,50 | 563                     | 106                     |
| 50900                   | 9,73 | 514                     | 92,5                    |
| 52400                   | 10,6 | 486                     | 85,1                    |
| 53900                   | 11,6 | 458                     | 77,9                    |
| 50900                   | 13,3 | 376                     | 67,7                    |
| 51200                   | 14,4 | 348                     | 62,3                    |
| 45800                   | 15,5 | 290                     | 58,0                    |
| 46400                   | 16,7 | 272                     | 53,8                    |
| 40700                   | 19,0 | 211                     | 47,5                    |
| 39600                   | 20,5 | 190                     | 43,9                    |

## P2Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 80700                   | 6,62 | 1200                    | 136                     |
| 84600                   | 7,57 | 1100                    | 119                     |
| 88700                   | 8,72 | 998                     | 103                     |
| 90000                   | 9,38 | 942                     | 95,9                    |
| 90000                   | 10,1 | 873                     | 88,9                    |
| 90000                   | 10,9 | 808                     | 82,3                    |
| 90000                   | 12,3 | 720                     | 73,3                    |
| 90000                   | 13,2 | 668                     | 68,1                    |
| 88000                   | 15,2 | 567                     | 59,1                    |
| 75100                   | 17,2 | 428                     | 52,3                    |
| 75800                   | 18,6 | 400                     | 48,4                    |
| 74300                   | 20,2 | 361                     | 44,5                    |

## P2Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 56800                   | 8,14 | 714                     | 111                     |
| 59700                   | 9,40 | 650                     | 95,7                    |
| 62700                   | 10,9 | 588                     | 82,4                    |
| 65500                   | 12,5 | 536                     | 71,9                    |
| 67300                   | 13,6 | 507                     | 66,1                    |
| 69300                   | 14,9 | 478                     | 60,6                    |
| 65400                   | 17,1 | 392                     | 52,7                    |
| 65900                   | 18,6 | 364                     | 48,5                    |
| 58900                   | 20,0 | 302                     | 45,1                    |
| 59600                   | 21,5 | 284                     | 41,8                    |
| 52300                   | 24,4 | 220                     | 36,9                    |
| 51000                   | 26,3 | 198                     | 34,2                    |

## P2Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 97600                   | 8,01 | 1200                    | 112                     |
| 102000                  | 9,16 | 1100                    | 98,3                    |
| 107000                  | 10,6 | 997                     | 85,3                    |
| 110000                  | 11,4 | 951                     | 79,3                    |
| 110000                  | 12,2 | 882                     | 73,5                    |
| 110000                  | 13,2 | 816                     | 68,0                    |
| 110000                  | 14,8 | 728                     | 60,6                    |
| 110000                  | 16,0 | 675                     | 56,3                    |
| 106000                  | 18,4 | 566                     | 48,8                    |
| 90800                   | 20,8 | 429                     | 43,3                    |
| 91800                   | 22,5 | 400                     | 40,0                    |
| 89900                   | 24,4 | 361                     | 36,8                    |

## 7.4 PZ GEAR REDUCER - 900 rpm

## P3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 24,5 | 36,8                    | 36,7                    |
| 9000                    | 28,0 | 32,2                    | 32,2                    |
| 9000                    | 32,1 | 28,1                    | 28,1                    |
| 9000                    | 36,9 | 24,4                    | 24,4                    |
| 9000                    | 42,9 | 21,0                    | 21,0                    |
| 9000                    | 46,4 | 19,4                    | 19,4                    |
| 9000                    | 51,4 | 17,5                    | 17,5                    |
| 9000                    | 57,7 | 15,6                    | 15,6                    |
| 9000                    | 68,2 | 13,2                    | 13,2                    |
| 9000                    | 73,9 | 12,2                    | 12,2                    |
| 9000                    | 79,8 | 11,3                    | 11,3                    |
| 9000                    | 86,2 | 10,5                    | 10,4                    |

## P3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 22,6 | 84,3                    | 39,8                    |
| 19000                   | 25,1 | 75,9                    | 35,9                    |
| 19000                   | 28,7 | 66,4                    | 31,4                    |
| 19000                   | 33,0 | 57,7                    | 27,2                    |
| 19000                   | 38,3 | 49,7                    | 23,5                    |
| 19000                   | 41,5 | 45,9                    | 21,7                    |
| 19000                   | 49,8 | 38,3                    | 18,1                    |
| 19000                   | 57,8 | 32,9                    | 15,6                    |
| 18700                   | 62,7 | 29,9                    | 14,4                    |
| 16400                   | 70,5 | 23,3                    | 12,8                    |
| 15700                   | 75,3 | 20,9                    | 12,0                    |
| 14900                   | 81,3 | 18,4                    | 11,1                    |

## P3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 25,1 | 116                     | 35,9                    |
| 29000                   | 28,1 | 104                     | 32,1                    |
| 29000                   | 31,7 | 91,7                    | 28,4                    |
| 29000                   | 37,9 | 76,7                    | 23,7                    |
| 29000                   | 41,1 | 70,7                    | 21,9                    |
| 29000                   | 44,7 | 65,0                    | 20,1                    |
| 29000                   | 53,9 | 54,0                    | 16,7                    |
| 29000                   | 61,2 | 47,5                    | 14,7                    |
| 29000                   | 66,1 | 44,0                    | 13,6                    |
| 29000                   | 71,5 | 40,6                    | 12,6                    |
| 24300                   | 75,6 | 32,2                    | 11,9                    |
| 27700                   | 82,3 | 33,7                    | 10,9                    |

## P3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 30,5 | 36,2                    | 29,5                    |
| 11000                   | 34,8 | 31,7                    | 25,9                    |
| 11000                   | 39,8 | 27,7                    | 22,6                    |
| 11000                   | 45,9 | 24,0                    | 19,6                    |
| 11000                   | 53,3 | 20,7                    | 16,9                    |
| 11000                   | 57,7 | 19,1                    | 15,6                    |
| 11000                   | 63,9 | 17,3                    | 14,1                    |
| 11000                   | 71,7 | 15,4                    | 12,6                    |
| 11000                   | 84,7 | 13,0                    | 10,6                    |
| 11000                   | 91,8 | 12,0                    | 9,81                    |
| 11000                   | 99,1 | 11,1                    | 9,09                    |
| 11000                   | 107  | 10,3                    | 8,41                    |

## P3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 28,6 | 84,0                    | 31,4                    |
| 24000                   | 31,8 | 75,6                    | 28,3                    |
| 24000                   | 36,4 | 66,1                    | 24,7                    |
| 24000                   | 41,9 | 57,4                    | 21,5                    |
| 24000                   | 48,6 | 49,5                    | 18,5                    |
| 24000                   | 52,6 | 45,8                    | 17,1                    |
| 24000                   | 63,1 | 38,1                    | 14,3                    |
| 24000                   | 73,3 | 32,8                    | 12,3                    |
| 23700                   | 79,4 | 29,9                    | 11,3                    |
| 20700                   | 89,4 | 23,2                    | 10,1                    |
| 20000                   | 95,4 | 21,0                    | 9,43                    |
| 18900                   | 103  | 18,4                    | 8,74                    |

## P3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 31,0 | 116                     | 29,0                    |
| 36000                   | 34,8 | 104                     | 25,9                    |
| 36000                   | 39,2 | 92,0                    | 22,9                    |
| 36000                   | 46,9 | 76,9                    | 19,2                    |
| 36000                   | 50,9 | 70,9                    | 17,7                    |
| 36000                   | 55,3 | 65,2                    | 16,3                    |
| 36000                   | 66,6 | 54,2                    | 13,5                    |
| 36000                   | 75,7 | 47,7                    | 11,9                    |
| 36000                   | 81,7 | 44,2                    | 11,0                    |
| 36000                   | 88,5 | 40,8                    | 10,2                    |
| 30000                   | 93,5 | 32,2                    | 9,63                    |
| 34200                   | 102  | 33,7                    | 8,84                    |

## 7.4 PZ GEAR REDUCER - 900 rpm

## P3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 24,3 | 227                     | 37,1                    |
| 55000                   | 28,2 | 196                     | 32,0                    |
| 55000                   | 30,4 | 181                     | 29,6                    |
| 55000                   | 32,9 | 168                     | 27,4                    |
| 55000                   | 35,7 | 155                     | 25,2                    |
| 55000                   | 38,8 | 142                     | 23,2                    |
| 55000                   | 42,4 | 130                     | 21,3                    |
| 55000                   | 49,1 | 112                     | 18,3                    |
| 55000                   | 56,8 | 97,1                    | 15,8                    |
| 55000                   | 62,3 | 88,6                    | 14,5                    |
| 54800                   | 67,4 | 81,5                    | 13,4                    |
| 51400                   | 73,2 | 70,4                    | 12,3                    |

## P3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 24,9 | 362                     | 36,1                    |
| 90000                   | 29,0 | 312                     | 31,1                    |
| 90000                   | 33,9 | 266                     | 26,6                    |
| 90000                   | 36,8 | 245                     | 24,5                    |
| 90000                   | 40,0 | 226                     | 22,5                    |
| 90000                   | 43,2 | 209                     | 20,8                    |
| 90000                   | 46,6 | 194                     | 19,3                    |
| 90000                   | 54,9 | 164                     | 16,4                    |
| 90000                   | 63,0 | 143                     | 14,3                    |
| 90000                   | 67,6 | 133                     | 13,3                    |
| 90000                   | 73,2 | 123                     | 12,3                    |
| 82500                   | 80,0 | 103                     | 11,2                    |

## P3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 31,2 | 225                     | 28,8                    |
| 70000                   | 36,2 | 194                     | 24,9                    |
| 70000                   | 39,1 | 180                     | 23,0                    |
| 70000                   | 42,3 | 166                     | 21,3                    |
| 70000                   | 45,9 | 153                     | 19,6                    |
| 70000                   | 49,9 | 141                     | 18,0                    |
| 70000                   | 54,5 | 129                     | 16,5                    |
| 70000                   | 63,1 | 111                     | 14,3                    |
| 70000                   | 73,0 | 96,1                    | 12,3                    |
| 70000                   | 80,1 | 87,7                    | 11,2                    |
| 70000                   | 86,6 | 81,0                    | 10,4                    |
| 66100                   | 94,1 | 70,4                    | 9,56                    |

## P3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 30,2 | 366                     | 29,8                    |
| 110000                  | 35,0 | 315                     | 25,7                    |
| 110000                  | 41,0 | 269                     | 22,0                    |
| 110000                  | 44,5 | 248                     | 20,2                    |
| 110000                  | 48,4 | 228                     | 18,6                    |
| 110000                  | 52,2 | 211                     | 17,2                    |
| 110000                  | 56,4 | 196                     | 16,0                    |
| 110000                  | 66,4 | 166                     | 13,6                    |
| 110000                  | 76,2 | 145                     | 11,8                    |
| 110000                  | 81,8 | 135                     | 11,0                    |
| 110000                  | 88,5 | 125                     | 10,2                    |
| 99800                   | 96,8 | 103                     | 9,30                    |

## 7.4 PZ GEAR REDUCER - 900 rpm

## P4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 87,8 | 22,2                    | 10,3                    |
| 19000                   | 93,4 | 20,8                    | 9,64                    |
| 19000                   | 106  | 18,4                    | 8,49                    |
| 19000                   | 121  | 16,1                    | 7,44                    |
| 19000                   | 139  | 14,0                    | 6,49                    |
| 19000                   | 161  | 12,1                    | 5,60                    |
| 19000                   | 188  | 10,4                    | 4,79                    |
| 19000                   | 204  | 9,53                    | 4,41                    |
| 19000                   | 224  | 8,69                    | 4,02                    |
| 19000                   | 243  | 8,01                    | 3,71                    |
| 19000                   | 293  | 6,64                    | 3,07                    |
| 19000                   | 318  | 6,12                    | 2,83                    |

## P4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 96,5 | 30,8                    | 9,32                    |
| 29000                   | 110  | 27,0                    | 8,18                    |
| 29000                   | 126  | 23,6                    | 7,14                    |
| 29000                   | 145  | 20,4                    | 6,19                    |
| 29000                   | 169  | 17,6                    | 5,33                    |
| 29000                   | 183  | 16,3                    | 4,93                    |
| 29000                   | 202  | 14,7                    | 4,45                    |
| 29000                   | 227  | 13,1                    | 3,96                    |
| 29000                   | 268  | 11,1                    | 3,35                    |
| 29000                   | 291  | 10,2                    | 3,10                    |
| 29000                   | 314  | 9,47                    | 2,87                    |
| 29000                   | 339  | 8,76                    | 2,65                    |

## P4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 87,4 | 64,5                    | 10,3                    |
| 55000                   | 97,0 | 58,1                    | 9,28                    |
| 55000                   | 111  | 50,8                    | 8,11                    |
| 55000                   | 128  | 44,1                    | 7,04                    |
| 55000                   | 148  | 38,0                    | 6,07                    |
| 55000                   | 160  | 35,1                    | 5,61                    |
| 55000                   | 192  | 29,3                    | 4,68                    |
| 55000                   | 224  | 25,2                    | 4,03                    |
| 55000                   | 242  | 23,3                    | 3,71                    |
| 55000                   | 273  | 20,7                    | 3,30                    |
| 54200                   | 291  | 19,1                    | 3,09                    |
| 55000                   | 314  | 17,9                    | 2,86                    |

## P4Z 249

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 24000                   | 111 | 22,1                    | 8,08                    |
| 24000                   | 118 | 20,8                    | 7,60                    |
| 24000                   | 134 | 18,3                    | 6,70                    |
| 24000                   | 153 | 16,0                    | 5,87                    |
| 24000                   | 176 | 14,0                    | 5,12                    |
| 24000                   | 204 | 12,1                    | 4,42                    |
| 24000                   | 238 | 10,3                    | 3,78                    |
| 24000                   | 259 | 9,49                    | 3,47                    |
| 24000                   | 284 | 8,65                    | 3,17                    |
| 24000                   | 308 | 7,98                    | 2,92                    |
| 24000                   | 371 | 6,62                    | 2,42                    |
| 24000                   | 403 | 6,10                    | 2,23                    |

## P4Z 279

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 36000                   | 119 | 30,9                    | 7,54                    |
| 36000                   | 136 | 27,1                    | 6,61                    |
| 36000                   | 156 | 23,6                    | 5,77                    |
| 36000                   | 180 | 20,5                    | 5,01                    |
| 36000                   | 209 | 17,7                    | 4,31                    |
| 36000                   | 226 | 16,3                    | 3,98                    |
| 36000                   | 250 | 14,7                    | 3,60                    |
| 36000                   | 281 | 13,1                    | 3,20                    |
| 36000                   | 332 | 11,1                    | 2,71                    |
| 36000                   | 360 | 10,3                    | 2,50                    |
| 36000                   | 388 | 9,50                    | 2,32                    |
| 36000                   | 419 | 8,79                    | 2,15                    |

## P4Z 349

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 70000                   | 112 | 63,8                    | 8,01                    |
| 70000                   | 125 | 57,5                    | 7,22                    |
| 70000                   | 143 | 50,2                    | 6,31                    |
| 70000                   | 164 | 43,6                    | 5,48                    |
| 70000                   | 191 | 37,6                    | 4,72                    |
| 70000                   | 206 | 34,8                    | 4,37                    |
| 70000                   | 247 | 29,0                    | 3,64                    |
| 70000                   | 287 | 24,9                    | 3,13                    |
| 70000                   | 312 | 23,0                    | 2,89                    |
| 70000                   | 350 | 20,5                    | 2,57                    |
| 69700                   | 374 | 19,1                    | 2,41                    |
| 70000                   | 404 | 17,7                    | 2,23                    |

## 7.4 PZ GEAR REDUCER - 900 rpm

## P4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 97,1 | 94,9                    | 9,27                    |
| 90000                   | 109  | 84,7                    | 8,27                    |
| 90000                   | 123  | 75,0                    | 7,33                    |
| 90000                   | 147  | 62,7                    | 6,12                    |
| 90000                   | 159  | 57,9                    | 5,65                    |
| 90000                   | 173  | 53,2                    | 5,19                    |
| 90000                   | 209  | 44,2                    | 4,31                    |
| 90000                   | 237  | 38,9                    | 3,79                    |
| 90000                   | 256  | 36,0                    | 3,52                    |
| 90000                   | 277  | 33,3                    | 3,25                    |
| 90000                   | 293  | 31,5                    | 3,07                    |
| 90000                   | 319  | 28,9                    | 2,82                    |

## P4Z 409

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 110000                  | 117 | 95,9                    | 7,66                    |
| 110000                  | 132 | 85,6                    | 6,84                    |
| 110000                  | 149 | 75,8                    | 6,06                    |
| 110000                  | 178 | 63,4                    | 5,06                    |
| 110000                  | 193 | 58,5                    | 4,67                    |
| 110000                  | 210 | 53,8                    | 4,29                    |
| 110000                  | 252 | 44,6                    | 3,57                    |
| 110000                  | 287 | 39,3                    | 3,14                    |
| 110000                  | 310 | 36,4                    | 2,91                    |
| 110000                  | 335 | 33,6                    | 2,68                    |
| 110000                  | 354 | 31,8                    | 2,54                    |
| 110000                  | 386 | 29,2                    | 2,33                    |

P2Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9000                    | 6,37 | 108                     | 110         |
| 9000                    | 7,14 | 96,2                    | 98,0        |
| 9000                    | 8,06 | 85,3                    | 86,8        |
| 9000                    | 9,64 | 71,3                    | 72,6        |
| 9000                    | 10,5 | 65,8                    | 67,0        |
| 9000                    | 11,4 | 60,4                    | 61,6        |
| 9000                    | 13,7 | 50,2                    | 51,1        |
| 9000                    | 15,6 | 44,2                    | 45,0        |
| 8820                    | 16,8 | 40,1                    | 41,7        |
| 8330                    | 18,2 | 35,0                    | 38,5        |
| 7030                    | 19,2 | 27,9                    | 36,4        |
| 7220                    | 20,9 | 26,3                    | 33,4        |

P2Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 16000                   | 6,28 | 194                     | 111         |
| 16800                   | 7,28 | 176                     | 96,2        |
| 17300                   | 7,86 | 168                     | 89,1        |
| 17700                   | 8,50 | 159                     | 82,4        |
| 18200                   | 9,22 | 150                     | 75,9        |
| 18700                   | 10,0 | 142                     | 69,8        |
| 19000                   | 11,0 | 132                     | 63,9        |
| 17600                   | 12,7 | 106                     | 55,2        |
| 16500                   | 14,7 | 85,6                    | 47,7        |
| 15300                   | 16,1 | 72,6                    | 43,5        |
| 14500                   | 17,4 | 63,6                    | 40,2        |
| 13700                   | 18,9 | 55,1                    | 37,0        |

P2Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 6,44 | 344                     | 109         |
| 29000                   | 7,47 | 296                     | 93,7        |
| 29000                   | 8,74 | 253                     | 80,1        |
| 29000                   | 9,49 | 233                     | 73,8        |
| 29000                   | 10,3 | 214                     | 67,8        |
| 29000                   | 11,1 | 199                     | 62,8        |
| 29000                   | 12,0 | 184                     | 58,2        |
| 29000                   | 14,2 | 156                     | 49,4        |
| 28200                   | 16,3 | 132                     | 43,1        |
| 25900                   | 17,5 | 113                     | 40,1        |
| 26000                   | 18,9 | 105                     | 37,1        |
| 21900                   | 20,7 | 80,8                    | 33,9        |

P2Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11000                   | 7,91 | 106                     | 88,5        |
| 11000                   | 8,87 | 94,7                    | 78,9        |
| 11000                   | 10,0 | 83,9                    | 69,9        |
| 11000                   | 12,0 | 70,1                    | 58,4        |
| 11000                   | 13,0 | 64,7                    | 53,9        |
| 11000                   | 14,1 | 59,5                    | 49,6        |
| 11000                   | 17,0 | 49,4                    | 41,2        |
| 11000                   | 19,3 | 43,4                    | 36,2        |
| 11000                   | 20,9 | 40,1                    | 33,6        |
| 10400                   | 22,6 | 35,0                    | 31,0        |
| 8730                    | 23,9 | 27,9                    | 29,4        |
| 8960                    | 26,0 | 26,3                    | 26,9        |

P2Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20300                   | 7,96 | 194                     | 87,9        |
| 21300                   | 9,23 | 176                     | 75,8        |
| 21900                   | 9,96 | 168                     | 70,3        |
| 22500                   | 10,8 | 159                     | 64,9        |
| 23100                   | 11,7 | 151                     | 59,9        |
| 23700                   | 12,7 | 142                     | 55,0        |
| 24000                   | 13,9 | 132                     | 50,4        |
| 22300                   | 16,1 | 106                     | 43,5        |
| 20900                   | 18,6 | 85,5                    | 37,6        |
| 19400                   | 20,4 | 72,6                    | 34,3        |
| 18400                   | 22,1 | 63,6                    | 31,7        |
| 17300                   | 24,0 | 55,0                    | 29,2        |

P2Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36000                   | 7,96 | 345                     | 87,9        |
| 36000                   | 9,25 | 297                     | 75,7        |
| 36000                   | 10,8 | 254                     | 64,8        |
| 36000                   | 11,7 | 234                     | 59,6        |
| 36000                   | 12,8 | 215                     | 54,8        |
| 36000                   | 13,8 | 199                     | 50,8        |
| 36000                   | 14,9 | 185                     | 47,0        |
| 36000                   | 17,5 | 157                     | 40,0        |
| 34900                   | 20,1 | 132                     | 34,8        |
| 32000                   | 21,6 | 113                     | 32,4        |
| 32200                   | 23,4 | 105                     | 30,0        |
| 27000                   | 25,6 | 80,7                    | 27,4        |

## 7.5 PZ GEAR REDUCER - 700 rpm

## P2Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 46700                   | 6,33 | 563                     | 111                     |
| 49000                   | 7,31 | 512                     | 95,8                    |
| 51500                   | 8,50 | 463                     | 82,4                    |
| 53800                   | 9,73 | 422                     | 71,9                    |
| 55000                   | 10,6 | 397                     | 66,2                    |
| 55000                   | 11,6 | 364                     | 60,6                    |
| 51200                   | 13,3 | 294                     | 52,7                    |
| 51500                   | 14,4 | 272                     | 48,5                    |
| 46100                   | 15,5 | 227                     | 45,1                    |
| 46600                   | 16,7 | 212                     | 41,8                    |
| 40900                   | 19,0 | 165                     | 36,9                    |
| 39900                   | 20,5 | 149                     | 34,2                    |

## P2Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 85300                   | 6,62 | 983                     | 106                     |
| 89300                   | 7,57 | 901                     | 92,5                    |
| 90000                   | 8,72 | 788                     | 80,3                    |
| 90000                   | 9,38 | 733                     | 74,6                    |
| 90000                   | 10,1 | 679                     | 69,2                    |
| 90000                   | 10,9 | 628                     | 64,0                    |
| 90000                   | 12,3 | 560                     | 57,0                    |
| 90000                   | 13,2 | 520                     | 53,0                    |
| 88500                   | 15,2 | 443                     | 45,9                    |
| 75500                   | 17,2 | 335                     | 40,7                    |
| 76300                   | 18,6 | 313                     | 37,6                    |
| 74700                   | 20,2 | 282                     | 34,6                    |

## P2Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 60000                   | 8,14 | 562                     | 86,0                    |
| 63000                   | 9,40 | 512                     | 74,5                    |
| 66300                   | 10,9 | 463                     | 64,1                    |
| 69200                   | 12,5 | 422                     | 56,0                    |
| 70000                   | 13,6 | 393                     | 51,4                    |
| 70000                   | 14,9 | 360                     | 47,1                    |
| 65700                   | 17,1 | 294                     | 41,0                    |
| 66200                   | 18,6 | 272                     | 37,7                    |
| 59300                   | 20,0 | 227                     | 35,1                    |
| 59900                   | 21,5 | 212                     | 32,5                    |
| 52600                   | 24,4 | 165                     | 28,7                    |
| 51200                   | 26,3 | 148                     | 26,6                    |

## P2Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 103000                  | 8,01 | 982                     | 87,4                    |
| 108000                  | 9,16 | 900                     | 76,4                    |
| 110000                  | 10,6 | 796                     | 66,4                    |
| 110000                  | 11,4 | 740                     | 61,7                    |
| 110000                  | 12,2 | 686                     | 57,2                    |
| 110000                  | 13,2 | 634                     | 52,9                    |
| 110000                  | 14,8 | 566                     | 47,2                    |
| 110000                  | 16,0 | 525                     | 43,8                    |
| 107000                  | 18,4 | 443                     | 38,0                    |
| 91400                   | 20,8 | 335                     | 33,7                    |
| 92300                   | 22,5 | 313                     | 31,1                    |
| 90400                   | 24,4 | 282                     | 28,6                    |

P3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9000                    | 24,5 | 28,6                    | 28,5        |
| 9000                    | 28,0 | 25,1                    | 25,0        |
| 9000                    | 32,1 | 21,9                    | 21,8        |
| 9000                    | 36,9 | 19,0                    | 18,9        |
| 9000                    | 42,9 | 16,4                    | 16,3        |
| 9000                    | 46,4 | 15,1                    | 15,1        |
| 9000                    | 51,4 | 13,6                    | 13,6        |
| 9000                    | 57,7 | 12,2                    | 12,1        |
| 9000                    | 68,2 | 10,3                    | 10,3        |
| 9000                    | 73,9 | 9,50                    | 9,47        |
| 9000                    | 79,8 | 8,80                    | 8,78        |
| 9000                    | 86,2 | 8,14                    | 8,12        |

P3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 22,6 | 65,6                    | 31,0        |
| 19000                   | 25,1 | 59,0                    | 27,9        |
| 19000                   | 28,7 | 51,6                    | 24,4        |
| 19000                   | 33,0 | 44,8                    | 21,2        |
| 19000                   | 38,3 | 38,6                    | 18,3        |
| 19000                   | 41,5 | 35,7                    | 16,9        |
| 19000                   | 49,8 | 29,8                    | 14,1        |
| 19000                   | 57,8 | 25,6                    | 12,1        |
| 18800                   | 62,7 | 23,4                    | 11,2        |
| 16500                   | 70,5 | 18,2                    | 9,93        |
| 15800                   | 75,3 | 16,4                    | 9,30        |
| 15000                   | 81,3 | 14,4                    | 8,62        |

P3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 25,1 | 90,2                    | 27,9        |
| 29000                   | 28,1 | 80,5                    | 24,9        |
| 29000                   | 31,7 | 71,3                    | 22,1        |
| 29000                   | 37,9 | 59,6                    | 18,5        |
| 29000                   | 41,1 | 55,0                    | 17,0        |
| 29000                   | 44,7 | 50,6                    | 15,7        |
| 29000                   | 53,9 | 42,0                    | 13,0        |
| 29000                   | 61,2 | 36,9                    | 11,4        |
| 29000                   | 66,1 | 34,2                    | 10,6        |
| 29000                   | 71,5 | 31,6                    | 9,79        |
| 24400                   | 75,6 | 25,2                    | 9,27        |
| 27900                   | 82,3 | 26,4                    | 8,50        |

P3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11000                   | 30,5 | 28,1                    | 23,0        |
| 11000                   | 34,8 | 24,7                    | 20,1        |
| 11000                   | 39,8 | 21,5                    | 17,6        |
| 11000                   | 45,9 | 18,7                    | 15,3        |
| 11000                   | 53,3 | 16,1                    | 13,1        |
| 11000                   | 57,7 | 14,9                    | 12,1        |
| 11000                   | 63,9 | 13,4                    | 11,0        |
| 11000                   | 71,7 | 12,0                    | 9,76        |
| 11000                   | 84,7 | 10,1                    | 8,26        |
| 11000                   | 91,8 | 9,35                    | 7,63        |
| 11000                   | 99,1 | 8,66                    | 7,07        |
| 11000                   | 107  | 8,01                    | 6,54        |

P3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24000                   | 28,6 | 65,3                    | 24,4        |
| 24000                   | 31,8 | 58,8                    | 22,0        |
| 24000                   | 36,4 | 51,4                    | 19,2        |
| 24000                   | 41,9 | 44,7                    | 16,7        |
| 24000                   | 48,6 | 38,5                    | 14,4        |
| 24000                   | 52,6 | 35,6                    | 13,3        |
| 24000                   | 63,1 | 29,7                    | 11,1        |
| 24000                   | 73,3 | 25,5                    | 9,55        |
| 23900                   | 79,4 | 23,4                    | 8,81        |
| 20900                   | 89,4 | 18,2                    | 7,83        |
| 20100                   | 95,4 | 16,4                    | 7,34        |
| 19000                   | 103  | 14,4                    | 6,79        |

P3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36000                   | 31,0 | 90,5                    | 22,6        |
| 36000                   | 34,8 | 80,8                    | 20,1        |
| 36000                   | 39,2 | 71,6                    | 17,8        |
| 36000                   | 46,9 | 59,8                    | 14,9        |
| 36000                   | 50,9 | 55,2                    | 13,8        |
| 36000                   | 55,3 | 50,7                    | 12,7        |
| 36000                   | 66,6 | 42,1                    | 10,5        |
| 36000                   | 75,7 | 37,1                    | 9,24        |
| 36000                   | 81,7 | 34,4                    | 8,57        |
| 36000                   | 88,5 | 31,7                    | 7,91        |
| 30200                   | 93,5 | 25,1                    | 7,49        |
| 34500                   | 102  | 26,4                    | 6,87        |

## 7.5 PZ GEAR REDUCER - 700 rpm

## P3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 24,3 | 177                     | 28,8                    |
| 55000                   | 28,2 | 152                     | 24,9                    |
| 55000                   | 30,4 | 141                     | 23,0                    |
| 55000                   | 32,9 | 130                     | 21,3                    |
| 55000                   | 35,7 | 120                     | 19,6                    |
| 55000                   | 38,8 | 111                     | 18,0                    |
| 55000                   | 42,4 | 101                     | 16,5                    |
| 55000                   | 49,1 | 87,4                    | 14,3                    |
| 55000                   | 56,8 | 75,5                    | 12,3                    |
| 55000                   | 62,3 | 68,9                    | 11,2                    |
| 55000                   | 67,4 | 63,7                    | 10,4                    |
| 51700                   | 73,2 | 55,1                    | 9,56                    |

## P3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 24,9 | 281                     | 28,1                    |
| 90000                   | 29,0 | 242                     | 24,2                    |
| 90000                   | 33,9 | 207                     | 20,7                    |
| 90000                   | 36,8 | 191                     | 19,0                    |
| 90000                   | 40,0 | 175                     | 17,5                    |
| 90000                   | 43,2 | 163                     | 16,2                    |
| 90000                   | 46,6 | 151                     | 15,0                    |
| 90000                   | 54,9 | 128                     | 12,8                    |
| 90000                   | 63,0 | 111                     | 11,1                    |
| 90000                   | 67,6 | 104                     | 10,4                    |
| 90000                   | 73,2 | 95,9                    | 9,57                    |
| 83000                   | 80,0 | 80,9                    | 8,75                    |

## P3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 31,2 | 175                     | 22,4                    |
| 70000                   | 36,2 | 151                     | 19,3                    |
| 70000                   | 39,1 | 140                     | 17,9                    |
| 70000                   | 42,3 | 129                     | 16,6                    |
| 70000                   | 45,9 | 119                     | 15,3                    |
| 70000                   | 49,9 | 109                     | 14,0                    |
| 70000                   | 54,5 | 100                     | 12,9                    |
| 70000                   | 63,1 | 86,5                    | 11,1                    |
| 70000                   | 73,0 | 74,8                    | 9,59                    |
| 70000                   | 80,1 | 68,2                    | 8,74                    |
| 70000                   | 86,6 | 63,0                    | 8,08                    |
| 66600                   | 94,1 | 55,1                    | 7,44                    |

## P3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 30,2 | 284                     | 23,2                    |
| 110000                  | 35,0 | 245                     | 20,0                    |
| 110000                  | 41,0 | 209                     | 17,1                    |
| 110000                  | 44,5 | 193                     | 15,7                    |
| 110000                  | 48,4 | 177                     | 14,5                    |
| 110000                  | 52,2 | 164                     | 13,4                    |
| 110000                  | 56,4 | 152                     | 12,4                    |
| 110000                  | 66,4 | 129                     | 10,5                    |
| 110000                  | 76,2 | 113                     | 9,19                    |
| 110000                  | 81,8 | 105                     | 8,56                    |
| 110000                  | 88,5 | 96,9                    | 7,91                    |
| 100000                  | 96,8 | 80,9                    | 7,23                    |

P4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 87,8 | 17,2                    | 7,97        |
| 19000                   | 93,4 | 16,2                    | 7,49        |
| 19000                   | 106  | 14,3                    | 6,60        |
| 19000                   | 121  | 12,5                    | 5,79        |
| 19000                   | 139  | 10,9                    | 5,04        |
| 19000                   | 161  | 9,43                    | 4,36        |
| 19000                   | 188  | 8,06                    | 3,72        |
| 19000                   | 204  | 7,41                    | 3,43        |
| 19000                   | 224  | 6,76                    | 3,12        |
| 19000                   | 243  | 6,23                    | 2,88        |
| 19000                   | 293  | 5,17                    | 2,39        |
| 19000                   | 318  | 4,76                    | 2,20        |

P4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 96,5 | 23,9                    | 7,25        |
| 29000                   | 110  | 21,0                    | 6,36        |
| 29000                   | 126  | 18,3                    | 5,55        |
| 29000                   | 145  | 15,9                    | 4,82        |
| 29000                   | 169  | 13,7                    | 4,15        |
| 29000                   | 183  | 12,7                    | 3,83        |
| 29000                   | 202  | 11,4                    | 3,46        |
| 29000                   | 227  | 10,2                    | 3,08        |
| 29000                   | 268  | 8,61                    | 2,61        |
| 29000                   | 291  | 7,95                    | 2,41        |
| 29000                   | 314  | 7,36                    | 2,23        |
| 29000                   | 339  | 6,81                    | 2,06        |

P4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55000                   | 87,4 | 50,2                    | 8,01        |
| 55000                   | 97,0 | 45,2                    | 7,22        |
| 55000                   | 111  | 39,5                    | 6,31        |
| 55000                   | 128  | 34,3                    | 5,48        |
| 55000                   | 148  | 29,6                    | 4,72        |
| 55000                   | 160  | 27,3                    | 4,37        |
| 55000                   | 192  | 22,8                    | 3,64        |
| 55000                   | 224  | 19,6                    | 3,13        |
| 55000                   | 242  | 18,1                    | 2,89        |
| 55000                   | 273  | 16,1                    | 2,57        |
| 54500                   | 291  | 14,9                    | 2,41        |
| 55000                   | 314  | 13,9                    | 2,23        |

P4Z 249

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 24000                   | 111 | 17,2                    | 6,29        |
| 24000                   | 118 | 16,1                    | 5,91        |
| 24000                   | 134 | 14,2                    | 5,21        |
| 24000                   | 153 | 12,5                    | 4,57        |
| 24000                   | 176 | 10,9                    | 3,98        |
| 24000                   | 204 | 9,39                    | 3,44        |
| 24000                   | 238 | 8,03                    | 2,94        |
| 24000                   | 259 | 7,38                    | 2,70        |
| 24000                   | 284 | 6,73                    | 2,46        |
| 24000                   | 308 | 6,21                    | 2,27        |
| 24000                   | 371 | 5,15                    | 1,88        |
| 24000                   | 403 | 4,74                    | 1,74        |

P4Z 279

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 36000                   | 119 | 24,0                    | 5,86        |
| 36000                   | 136 | 21,1                    | 5,14        |
| 36000                   | 156 | 18,4                    | 4,49        |
| 36000                   | 180 | 16,0                    | 3,89        |
| 36000                   | 209 | 13,7                    | 3,35        |
| 36000                   | 226 | 12,7                    | 3,10        |
| 36000                   | 250 | 11,5                    | 2,80        |
| 36000                   | 281 | 10,2                    | 2,49        |
| 36000                   | 332 | 8,64                    | 2,11        |
| 36000                   | 360 | 7,98                    | 1,95        |
| 36000                   | 388 | 7,39                    | 1,80        |
| 36000                   | 419 | 6,84                    | 1,67        |

P4Z 349

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 70000                   | 112 | 49,6                    | 6,23        |
| 70000                   | 125 | 44,7                    | 5,61        |
| 70000                   | 143 | 39,1                    | 4,91        |
| 70000                   | 164 | 33,9                    | 4,26        |
| 70000                   | 191 | 29,3                    | 3,67        |
| 70000                   | 206 | 27,1                    | 3,40        |
| 70000                   | 247 | 22,5                    | 2,83        |
| 70000                   | 287 | 19,4                    | 2,43        |
| 70000                   | 312 | 17,9                    | 2,25        |
| 70000                   | 350 | 15,9                    | 2,00        |
| 70000                   | 374 | 14,9                    | 1,87        |
| 70000                   | 404 | 13,8                    | 1,73        |

## 7.5 PZ GEAR REDUCER - 700 rpm

## P4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 97,1 | 73,8                    | 7,21                    |
| 90000                   | 109  | 65,9                    | 6,43                    |
| 90000                   | 123  | 58,4                    | 5,70                    |
| 90000                   | 147  | 48,8                    | 4,76                    |
| 90000                   | 159  | 45,0                    | 4,39                    |
| 90000                   | 173  | 41,4                    | 4,04                    |
| 90000                   | 209  | 34,4                    | 3,35                    |
| 90000                   | 237  | 30,2                    | 2,95                    |
| 90000                   | 256  | 28,0                    | 2,74                    |
| 90000                   | 277  | 25,9                    | 2,53                    |
| 90000                   | 293  | 24,5                    | 2,39                    |
| 90000                   | 319  | 22,5                    | 2,19                    |

## P4Z 409

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 110000                  | 117 | 74,6                    | 5,96                    |
| 110000                  | 132 | 66,6                    | 5,32                    |
| 110000                  | 149 | 59,0                    | 4,71                    |
| 110000                  | 178 | 49,3                    | 3,94                    |
| 110000                  | 193 | 45,5                    | 3,63                    |
| 110000                  | 210 | 41,8                    | 3,34                    |
| 110000                  | 252 | 34,7                    | 2,77                    |
| 110000                  | 287 | 30,5                    | 2,44                    |
| 110000                  | 310 | 28,3                    | 2,26                    |
| 110000                  | 335 | 26,1                    | 2,09                    |
| 110000                  | 354 | 24,7                    | 1,98                    |
| 110000                  | 386 | 22,7                    | 1,81                    |

## 7.6 PZ GEAR REDUCER - 500 rpm

## P2Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9000                    | 6,37 | 77,1                    | 78,5                    |
| 9000                    | 7,14 | 68,7                    | 70,0                    |
| 9000                    | 8,06 | 60,9                    | 62,0                    |
| 9000                    | 9,64 | 50,9                    | 51,9                    |
| 9000                    | 10,5 | 47,0                    | 47,8                    |
| 9000                    | 11,4 | 43,2                    | 44,0                    |
| 9000                    | 13,7 | 35,9                    | 36,5                    |
| 9000                    | 15,6 | 31,5                    | 32,1                    |
| 9000                    | 16,8 | 29,2                    | 29,8                    |
| 8510                    | 18,2 | 25,5                    | 27,5                    |
| 7140                    | 19,2 | 20,3                    | 26,0                    |
| 7380                    | 20,9 | 19,2                    | 23,9                    |

## P2Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18600                   | 6,28 | 162                     | 79,6                    |
| 19000                   | 7,28 | 142                     | 68,7                    |
| 19000                   | 7,86 | 132                     | 63,6                    |
| 19000                   | 8,50 | 122                     | 58,8                    |
| 19000                   | 9,22 | 112                     | 54,2                    |
| 19000                   | 10,0 | 103                     | 49,9                    |
| 19000                   | 11,0 | 94,6                    | 45,7                    |
| 17800                   | 12,7 | 76,7                    | 39,4                    |
| 16800                   | 14,7 | 62,3                    | 34,1                    |
| 15600                   | 16,1 | 52,8                    | 31,1                    |
| 14800                   | 17,4 | 46,3                    | 28,7                    |
| 14000                   | 18,9 | 40,2                    | 26,4                    |

## P2Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 6,44 | 246                     | 77,6                    |
| 29000                   | 7,47 | 212                     | 66,9                    |
| 29000                   | 8,74 | 181                     | 57,2                    |
| 29000                   | 9,49 | 167                     | 52,7                    |
| 29000                   | 10,3 | 153                     | 48,4                    |
| 29000                   | 11,1 | 142                     | 44,9                    |
| 29000                   | 12,0 | 131                     | 41,6                    |
| 29000                   | 14,2 | 112                     | 35,3                    |
| 28700                   | 16,3 | 96,1                    | 30,8                    |
| 26200                   | 17,5 | 81,9                    | 28,7                    |
| 26500                   | 18,9 | 76,5                    | 26,5                    |
| 22300                   | 20,7 | 58,9                    | 24,2                    |

## P2Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11000                   | 7,91 | 75,8                    | 63,2                    |
| 11000                   | 8,87 | 67,6                    | 56,4                    |
| 11000                   | 10,0 | 59,9                    | 50,0                    |
| 11000                   | 12,0 | 50,1                    | 41,7                    |
| 11000                   | 13,0 | 46,2                    | 38,5                    |
| 11000                   | 14,1 | 42,5                    | 35,4                    |
| 11000                   | 17,0 | 35,3                    | 29,4                    |
| 11000                   | 19,3 | 31,0                    | 25,9                    |
| 11000                   | 20,9 | 28,8                    | 24,0                    |
| 10600                   | 22,6 | 25,5                    | 22,1                    |
| 8870                    | 23,9 | 20,3                    | 21,0                    |
| 9160                    | 26,0 | 19,2                    | 19,2                    |

## P2Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23600                   | 7,96 | 162                     | 62,8                    |
| 24000                   | 9,23 | 142                     | 54,2                    |
| 24000                   | 9,96 | 131                     | 50,2                    |
| 24000                   | 10,8 | 121                     | 46,4                    |
| 24000                   | 11,7 | 112                     | 42,8                    |
| 24000                   | 12,7 | 103                     | 39,3                    |
| 24000                   | 13,9 | 94,3                    | 36,0                    |
| 22600                   | 16,1 | 76,6                    | 31,1                    |
| 21300                   | 18,6 | 62,2                    | 26,9                    |
| 19800                   | 20,4 | 52,8                    | 24,5                    |
| 18800                   | 22,1 | 46,3                    | 22,6                    |
| 17700                   | 24,0 | 40,1                    | 20,8                    |

## P2Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 7,96 | 247                     | 62,8                    |
| 36000                   | 9,25 | 212                     | 54,1                    |
| 36000                   | 10,8 | 182                     | 46,3                    |
| 36000                   | 11,7 | 167                     | 42,6                    |
| 36000                   | 12,8 | 154                     | 39,1                    |
| 36000                   | 13,8 | 142                     | 36,3                    |
| 36000                   | 14,9 | 132                     | 33,6                    |
| 36000                   | 17,5 | 112                     | 28,5                    |
| 35500                   | 20,1 | 96,2                    | 24,9                    |
| 32400                   | 21,6 | 81,8                    | 23,1                    |
| 32800                   | 23,4 | 76,5                    | 21,4                    |
| 27600                   | 25,6 | 58,8                    | 19,6                    |

## 7.6 PZ GEAR REDUCER - 500 rpm

## P2Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 54400                   | 6,33 | 468                     | 79,0                    |
| 55000                   | 7,31 | 410                     | 68,4                    |
| 55000                   | 8,50 | 353                     | 58,8                    |
| 55000                   | 9,73 | 308                     | 51,4                    |
| 55000                   | 10,6 | 284                     | 47,3                    |
| 55000                   | 11,6 | 260                     | 43,3                    |
| 51900                   | 13,3 | 213                     | 37,6                    |
| 52200                   | 14,4 | 197                     | 34,6                    |
| 46700                   | 15,5 | 164                     | 32,2                    |
| 47200                   | 16,7 | 154                     | 29,9                    |
| 41400                   | 19,0 | 119                     | 26,4                    |
| 40500                   | 20,5 | 108                     | 24,4                    |

## P2Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 6,62 | 741                     | 75,5                    |
| 90000                   | 7,57 | 648                     | 66,1                    |
| 90000                   | 8,72 | 563                     | 57,3                    |
| 90000                   | 9,38 | 523                     | 53,3                    |
| 90000                   | 10,1 | 485                     | 49,4                    |
| 90000                   | 10,9 | 449                     | 45,7                    |
| 90000                   | 12,3 | 400                     | 40,7                    |
| 90000                   | 13,2 | 371                     | 37,8                    |
| 89900                   | 15,2 | 322                     | 32,8                    |
| 76700                   | 17,2 | 243                     | 29,1                    |
| 77400                   | 18,6 | 227                     | 26,9                    |
| 75900                   | 20,2 | 205                     | 24,7                    |

## P2Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 69900                   | 8,14 | 468                     | 61,4                    |
| 70000                   | 9,40 | 406                     | 53,2                    |
| 70000                   | 10,9 | 350                     | 45,8                    |
| 70000                   | 12,5 | 305                     | 40,0                    |
| 70000                   | 13,6 | 281                     | 36,7                    |
| 70000                   | 14,9 | 257                     | 33,7                    |
| 66800                   | 17,1 | 213                     | 29,3                    |
| 67100                   | 18,6 | 197                     | 26,9                    |
| 60100                   | 20,0 | 164                     | 25,1                    |
| 60700                   | 21,5 | 154                     | 23,2                    |
| 53200                   | 24,4 | 119                     | 20,5                    |
| 52100                   | 26,3 | 108                     | 19,0                    |

## P2Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 8,01 | 749                     | 62,4                    |
| 110000                  | 9,16 | 655                     | 54,6                    |
| 110000                  | 10,6 | 569                     | 47,4                    |
| 110000                  | 11,4 | 529                     | 44,1                    |
| 110000                  | 12,2 | 490                     | 40,8                    |
| 110000                  | 13,2 | 453                     | 37,8                    |
| 110000                  | 14,8 | 404                     | 33,7                    |
| 110000                  | 16,0 | 375                     | 31,3                    |
| 109000                  | 18,4 | 322                     | 27,1                    |
| 92700                   | 20,8 | 243                     | 24,0                    |
| 93600                   | 22,5 | 227                     | 22,2                    |
| 91900                   | 24,4 | 205                     | 20,5                    |

P3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9000                    | 24,5 | 20,4                    | 20,4        |
| 9000                    | 28,0 | 17,9                    | 17,9        |
| 9000                    | 32,1 | 15,6                    | 15,6        |
| 9000                    | 36,9 | 13,6                    | 13,5        |
| 9000                    | 42,9 | 11,7                    | 11,7        |
| 9000                    | 46,4 | 10,8                    | 10,8        |
| 9000                    | 51,4 | 9,75                    | 9,72        |
| 9000                    | 57,7 | 8,68                    | 8,66        |
| 9000                    | 68,2 | 7,35                    | 7,33        |
| 9000                    | 73,9 | 6,79                    | 6,77        |
| 9000                    | 79,8 | 6,28                    | 6,27        |
| 9000                    | 86,2 | 5,82                    | 5,80        |

P3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 22,6 | 46,8                    | 22,1        |
| 19000                   | 25,1 | 42,2                    | 19,9        |
| 19000                   | 28,7 | 36,9                    | 17,4        |
| 19000                   | 33,0 | 32,0                    | 15,1        |
| 19000                   | 38,3 | 27,6                    | 13,0        |
| 19000                   | 41,5 | 25,5                    | 12,1        |
| 19000                   | 49,8 | 21,3                    | 10,0        |
| 19000                   | 57,8 | 18,3                    | 8,65        |
| 19000                   | 62,7 | 16,9                    | 7,98        |
| 16700                   | 70,5 | 13,2                    | 7,09        |
| 16000                   | 75,3 | 11,8                    | 6,64        |
| 15400                   | 81,3 | 10,5                    | 6,15        |

P3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 25,1 | 64,5                    | 20,0        |
| 29000                   | 28,1 | 57,5                    | 17,8        |
| 29000                   | 31,7 | 51,0                    | 15,8        |
| 29000                   | 37,9 | 42,6                    | 13,2        |
| 29000                   | 41,1 | 39,3                    | 12,2        |
| 29000                   | 44,7 | 36,1                    | 11,2        |
| 29000                   | 53,9 | 30,0                    | 9,29        |
| 29000                   | 61,2 | 26,4                    | 8,17        |
| 29000                   | 66,1 | 24,5                    | 7,57        |
| 29000                   | 71,5 | 22,6                    | 6,99        |
| 24800                   | 75,6 | 18,2                    | 6,62        |
| 28500                   | 82,3 | 19,3                    | 6,07        |

P3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11000                   | 30,5 | 20,1                    | 16,4        |
| 11000                   | 34,8 | 17,6                    | 14,4        |
| 11000                   | 39,8 | 15,4                    | 12,6        |
| 11000                   | 45,9 | 13,4                    | 10,9        |
| 11000                   | 53,3 | 11,5                    | 9,38        |
| 11000                   | 57,7 | 10,6                    | 8,67        |
| 11000                   | 63,9 | 9,59                    | 7,83        |
| 11000                   | 71,7 | 8,55                    | 6,97        |
| 11000                   | 84,7 | 7,23                    | 5,90        |
| 11000                   | 91,8 | 6,68                    | 5,45        |
| 11000                   | 99,1 | 6,18                    | 5,05        |
| 11000                   | 107  | 5,72                    | 4,67        |

P3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24000                   | 28,6 | 46,7                    | 17,5        |
| 24000                   | 31,8 | 42,0                    | 15,7        |
| 24000                   | 36,4 | 36,7                    | 13,7        |
| 24000                   | 41,9 | 31,9                    | 11,9        |
| 24000                   | 48,6 | 27,5                    | 10,3        |
| 24000                   | 52,6 | 25,4                    | 9,51        |
| 24000                   | 63,1 | 21,2                    | 7,93        |
| 24000                   | 73,3 | 18,2                    | 6,82        |
| 24000                   | 79,4 | 16,8                    | 6,29        |
| 21100                   | 89,4 | 13,2                    | 5,59        |
| 20300                   | 95,4 | 11,8                    | 5,24        |
| 19500                   | 103  | 10,5                    | 4,85        |

P3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36000                   | 31,0 | 64,7                    | 16,1        |
| 36000                   | 34,8 | 57,7                    | 14,4        |
| 36000                   | 39,2 | 51,1                    | 12,7        |
| 36000                   | 46,9 | 42,7                    | 10,7        |
| 36000                   | 50,9 | 39,4                    | 9,83        |
| 36000                   | 55,3 | 36,2                    | 9,04        |
| 36000                   | 66,6 | 30,1                    | 7,50        |
| 36000                   | 75,7 | 26,5                    | 6,60        |
| 36000                   | 81,7 | 24,5                    | 6,12        |
| 36000                   | 88,5 | 22,7                    | 5,65        |
| 30600                   | 93,5 | 18,2                    | 5,35        |
| 35300                   | 102  | 19,3                    | 4,91        |

## 7.6 PZ GEAR REDUCER - 500 rpm

## P3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 24,3 | 126                     | 20,6                    |
| 55000                   | 28,2 | 109                     | 17,8                    |
| 55000                   | 30,4 | 101                     | 16,5                    |
| 55000                   | 32,9 | 93,1                    | 15,2                    |
| 55000                   | 35,7 | 85,9                    | 14,0                    |
| 55000                   | 38,8 | 79,0                    | 12,9                    |
| 55000                   | 42,4 | 72,3                    | 11,8                    |
| 55000                   | 49,1 | 62,4                    | 10,2                    |
| 55000                   | 56,8 | 53,9                    | 8,80                    |
| 55000                   | 62,3 | 49,2                    | 8,03                    |
| 55000                   | 67,4 | 45,5                    | 7,42                    |
| 52800                   | 73,2 | 40,2                    | 6,83                    |

## P3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 24,9 | 201                     | 20,0                    |
| 90000                   | 29,0 | 173                     | 17,3                    |
| 90000                   | 33,9 | 148                     | 14,8                    |
| 90000                   | 36,8 | 136                     | 13,6                    |
| 90000                   | 40,0 | 125                     | 12,5                    |
| 90000                   | 43,2 | 116                     | 11,6                    |
| 90000                   | 46,6 | 108                     | 10,7                    |
| 90000                   | 54,9 | 91,4                    | 9,11                    |
| 90000                   | 63,0 | 79,6                    | 7,94                    |
| 90000                   | 67,6 | 74,1                    | 7,39                    |
| 90000                   | 73,2 | 68,5                    | 6,83                    |
| 84600                   | 80,0 | 58,9                    | 6,25                    |

## P3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 31,2 | 125                     | 16,0                    |
| 70000                   | 36,2 | 108                     | 13,8                    |
| 70000                   | 39,1 | 99,8                    | 12,8                    |
| 70000                   | 42,3 | 92,2                    | 11,8                    |
| 70000                   | 45,9 | 85,0                    | 10,9                    |
| 70000                   | 49,9 | 78,1                    | 10,0                    |
| 70000                   | 54,5 | 71,6                    | 9,18                    |
| 70000                   | 63,1 | 61,8                    | 7,92                    |
| 70000                   | 73,0 | 53,4                    | 6,85                    |
| 70000                   | 80,1 | 48,7                    | 6,25                    |
| 70000                   | 86,6 | 45,0                    | 5,77                    |
| 67900                   | 94,1 | 40,1                    | 5,31                    |

## P3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 30,2 | 203                     | 16,6                    |
| 110000                  | 35,0 | 175                     | 14,3                    |
| 110000                  | 41,0 | 150                     | 12,2                    |
| 110000                  | 44,5 | 138                     | 11,2                    |
| 110000                  | 48,4 | 127                     | 10,3                    |
| 110000                  | 52,2 | 117                     | 9,57                    |
| 110000                  | 56,4 | 109                     | 8,87                    |
| 110000                  | 66,4 | 92,3                    | 7,53                    |
| 110000                  | 76,2 | 80,4                    | 6,56                    |
| 110000                  | 81,8 | 74,9                    | 6,11                    |
| 110000                  | 88,5 | 69,2                    | 5,65                    |
| 102000                  | 96,8 | 58,9                    | 5,17                    |

P4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 87,8 | 12,3                    | 5,69                    |
| 19000                   | 93,4 | 11,6                    | 5,35                    |
| 19000                   | 106  | 10,2                    | 4,72                    |
| 19000                   | 121  | 8,94                    | 4,14                    |
| 19000                   | 139  | 7,79                    | 3,60                    |
| 19000                   | 161  | 6,73                    | 3,11                    |
| 19000                   | 188  | 5,75                    | 2,66                    |
| 19000                   | 204  | 5,29                    | 2,45                    |
| 19000                   | 224  | 4,83                    | 2,23                    |
| 19000                   | 243  | 4,45                    | 2,06                    |
| 19000                   | 293  | 3,69                    | 1,71                    |
| 19000                   | 318  | 3,40                    | 1,57                    |

P4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 96,5 | 17,1                    | 5,18                    |
| 29000                   | 110  | 15,0                    | 4,54                    |
| 29000                   | 126  | 13,1                    | 3,97                    |
| 29000                   | 145  | 11,4                    | 3,44                    |
| 29000                   | 169  | 9,78                    | 2,96                    |
| 29000                   | 183  | 9,04                    | 2,74                    |
| 29000                   | 202  | 8,16                    | 2,47                    |
| 29000                   | 227  | 7,27                    | 2,20                    |
| 29000                   | 268  | 6,15                    | 1,86                    |
| 29000                   | 291  | 5,68                    | 1,72                    |
| 29000                   | 314  | 5,26                    | 1,59                    |
| 29000                   | 339  | 4,87                    | 1,47                    |

P4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 87,4 | 35,8                    | 5,72                    |
| 55000                   | 97,0 | 32,3                    | 5,15                    |
| 55000                   | 111  | 28,2                    | 4,50                    |
| 55000                   | 128  | 24,5                    | 3,91                    |
| 55000                   | 148  | 21,1                    | 3,37                    |
| 55000                   | 160  | 19,5                    | 3,12                    |
| 55000                   | 192  | 16,3                    | 2,60                    |
| 55000                   | 224  | 14,0                    | 2,24                    |
| 55000                   | 242  | 12,9                    | 2,06                    |
| 55000                   | 273  | 11,5                    | 1,83                    |
| 55000                   | 291  | 10,8                    | 1,72                    |
| 55000                   | 314  | 9,96                    | 1,59                    |

P4Z 249

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 24000                   | 111 | 12,3                    | 4,49                    |
| 24000                   | 118 | 11,5                    | 4,22                    |
| 24000                   | 134 | 10,2                    | 3,72                    |
| 24000                   | 153 | 8,91                    | 3,26                    |
| 24000                   | 176 | 7,76                    | 2,84                    |
| 24000                   | 204 | 6,71                    | 2,46                    |
| 24000                   | 238 | 5,73                    | 2,10                    |
| 24000                   | 259 | 5,27                    | 1,93                    |
| 24000                   | 284 | 4,81                    | 1,76                    |
| 24000                   | 308 | 4,44                    | 1,62                    |
| 24000                   | 371 | 3,68                    | 1,35                    |
| 24000                   | 403 | 3,39                    | 1,24                    |

P4Z 279

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 36000                   | 119 | 17,2                    | 4,19                    |
| 36000                   | 136 | 15,0                    | 3,67                    |
| 36000                   | 156 | 13,1                    | 3,20                    |
| 36000                   | 180 | 11,4                    | 2,78                    |
| 36000                   | 209 | 9,81                    | 2,39                    |
| 36000                   | 226 | 9,07                    | 2,21                    |
| 36000                   | 250 | 8,19                    | 2,00                    |
| 36000                   | 281 | 7,29                    | 1,78                    |
| 36000                   | 332 | 6,17                    | 1,51                    |
| 36000                   | 360 | 5,70                    | 1,39                    |
| 36000                   | 388 | 5,28                    | 1,29                    |
| 36000                   | 419 | 4,88                    | 1,19                    |

P4Z 349

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 70000                   | 112 | 35,5                    | 4,45                    |
| 70000                   | 125 | 31,9                    | 4,01                    |
| 70000                   | 143 | 27,9                    | 3,50                    |
| 70000                   | 164 | 24,2                    | 3,04                    |
| 70000                   | 191 | 20,9                    | 2,62                    |
| 70000                   | 206 | 19,3                    | 2,43                    |
| 70000                   | 247 | 16,1                    | 2,02                    |
| 70000                   | 287 | 13,9                    | 1,74                    |
| 70000                   | 312 | 12,8                    | 1,61                    |
| 70000                   | 350 | 11,4                    | 1,43                    |
| 70000                   | 374 | 10,6                    | 1,34                    |
| 70000                   | 404 | 9,86                    | 1,24                    |

## 7.6 PZ GEAR REDUCER - 500 rpm

## P4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 97,1 | 52,7                    | 5,15                    |
| 90000                   | 109  | 47,1                    | 4,59                    |
| 90000                   | 123  | 41,7                    | 4,07                    |
| 90000                   | 147  | 34,8                    | 3,40                    |
| 90000                   | 159  | 32,1                    | 3,14                    |
| 90000                   | 173  | 29,6                    | 2,89                    |
| 90000                   | 209  | 24,5                    | 2,40                    |
| 90000                   | 237  | 21,6                    | 2,11                    |
| 90000                   | 256  | 20,0                    | 1,95                    |
| 90000                   | 277  | 18,5                    | 1,80                    |
| 90000                   | 293  | 17,5                    | 1,71                    |
| 90000                   | 319  | 16,1                    | 1,57                    |

## P4Z 409

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 110000                  | 117 | 53,3                    | 4,26                    |
| 110000                  | 132 | 47,6                    | 3,80                    |
| 110000                  | 149 | 42,1                    | 3,36                    |
| 110000                  | 178 | 35,2                    | 2,81                    |
| 110000                  | 193 | 32,5                    | 2,59                    |
| 110000                  | 210 | 29,9                    | 2,39                    |
| 110000                  | 252 | 24,8                    | 1,98                    |
| 110000                  | 287 | 21,8                    | 1,74                    |
| 110000                  | 310 | 20,2                    | 1,61                    |
| 110000                  | 335 | 18,7                    | 1,49                    |
| 110000                  | 354 | 17,7                    | 1,41                    |
| 110000                  | 386 | 16,2                    | 1,30                    |

PBZ

B3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 6060                    | 13,3 | 89,0                    | 132         |
| 6790                    | 14,9 | 89,0                    | 118         |
| 7670                    | 16,8 | 89,1                    | 104         |
| 9000                    | 20,1 | 87,3                    | 87,1        |
| 9000                    | 21,8 | 80,6                    | 80,3        |
| 9000                    | 23,7 | 74,1                    | 73,9        |
| 9000                    | 28,5 | 61,5                    | 61,4        |
| 9000                    | 32,4 | 54,1                    | 54,0        |
| 9000                    | 35,0 | 50,2                    | 50,0        |
| 6850                    | 37,9 | 35,2                    | 46,2        |
| 8250                    | 45,6 | 35,2                    | 38,3        |
| 9000                    | 51,9 | 33,8                    | 33,7        |
| 9000                    | 56,0 | 31,3                    | 31,3        |
| 8890                    | 60,6 | 28,6                    | 28,9        |
| 6680                    | 64,0 | 20,3                    | 27,3        |
| 7720                    | 69,8 | 21,6                    | 25,1        |

B3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11100                   | 12,0 | 180                     | 145         |
| 12300                   | 14,0 | 172                     | 125         |
| 13000                   | 15,1 | 168                     | 116         |
| 13700                   | 16,3 | 164                     | 107         |
| 14500                   | 17,7 | 160                     | 99,0        |
| 15300                   | 19,2 | 155                     | 91,0        |
| 16200                   | 21,0 | 150                     | 83,4        |
| 17800                   | 24,3 | 142                     | 71,9        |
| 14600                   | 28,2 | 101                     | 62,2        |
| 12100                   | 30,9 | 76,2                    | 56,6        |
| 13200                   | 33,8 | 76,2                    | 51,8        |
| 15300                   | 39,1 | 76,2                    | 44,7        |
| 17500                   | 45,3 | 75,3                    | 38,6        |
| 16200                   | 49,6 | 63,6                    | 35,3        |
| 15400                   | 53,7 | 55,9                    | 32,6        |
| 14500                   | 58,4 | 48,4                    | 30,0        |

B3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19500                   | 12,3 | 307                     | 142         |
| 22600                   | 14,3 | 308                     | 122         |
| 26400                   | 16,8 | 307                     | 104         |
| 28700                   | 18,2 | 307                     | 96,3        |
| 29000                   | 19,8 | 286                     | 88,4        |
| 29000                   | 21,4 | 265                     | 81,9        |
| 29000                   | 23,1 | 245                     | 75,9        |
| 29000                   | 27,1 | 208                     | 64,5        |
| 29000                   | 31,2 | 181                     | 56,2        |
| 23300                   | 34,4 | 132                     | 50,9        |
| 25100                   | 37,1 | 132                     | 47,2        |
| 29000                   | 43,7 | 129                     | 40,1        |
| 29000                   | 50,1 | 113                     | 34,9        |
| 27200                   | 53,8 | 98,3                    | 32,5        |
| 27500                   | 58,2 | 91,9                    | 30,1        |
| 23200                   | 63,7 | 71,0                    | 27,5        |

B3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 7530                    | 16,5 | 89,0                    | 106         |
| 8430                    | 18,5 | 89,0                    | 94,7        |
| 9520                    | 20,9 | 89,0                    | 83,9        |
| 11000                   | 25,0 | 85,9                    | 70,1        |
| 11000                   | 27,1 | 79,3                    | 64,7        |
| 11000                   | 29,4 | 72,9                    | 59,5        |
| 11000                   | 35,4 | 60,5                    | 49,4        |
| 11000                   | 40,3 | 53,3                    | 43,5        |
| 11000                   | 43,5 | 49,4                    | 40,3        |
| 8500                    | 47,1 | 35,2                    | 37,2        |
| 10200                   | 56,7 | 35,2                    | 30,9        |
| 11000                   | 64,4 | 33,3                    | 27,2        |
| 11000                   | 69,5 | 30,8                    | 25,2        |
| 11000                   | 75,3 | 28,5                    | 23,2        |
| 8290                    | 79,5 | 20,3                    | 22,0        |
| 9580                    | 86,6 | 21,6                    | 20,2        |

B3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 14100                   | 15,3 | 179                     | 115         |
| 15700                   | 17,7 | 172                     | 98,9        |
| 16500                   | 19,1 | 168                     | 91,6        |
| 17400                   | 20,7 | 164                     | 84,7        |
| 18400                   | 22,4 | 160                     | 78,1        |
| 19400                   | 24,4 | 155                     | 71,8        |
| 20500                   | 26,6 | 150                     | 65,8        |
| 22500                   | 30,9 | 142                     | 56,7        |
| 18700                   | 35,7 | 102                     | 49,0        |
| 15400                   | 39,2 | 76,3                    | 44,6        |
| 16800                   | 42,8 | 76,3                    | 40,9        |
| 19500                   | 49,6 | 76,4                    | 35,3        |
| 22200                   | 57,4 | 75,2                    | 30,5        |
| 20600                   | 62,9 | 63,8                    | 27,8        |
| 19500                   | 68,1 | 55,8                    | 25,7        |
| 18400                   | 74,0 | 48,5                    | 23,6        |

B3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24100                   | 15,3 | 308                     | 115         |
| 28000                   | 17,7 | 307                     | 98,8        |
| 32700                   | 20,7 | 307                     | 84,4        |
| 35500                   | 22,5 | 307                     | 77,8        |
| 36000                   | 24,5 | 287                     | 71,5        |
| 36000                   | 26,4 | 266                     | 66,2        |
| 36000                   | 28,5 | 246                     | 61,3        |
| 36000                   | 33,6 | 209                     | 52,1        |
| 36000                   | 38,6 | 182                     | 45,4        |
| 28800                   | 42,5 | 132                     | 41,2        |
| 31100                   | 45,9 | 132                     | 38,1        |
| 36000                   | 54,0 | 130                     | 32,4        |
| 36000                   | 62,0 | 113                     | 28,2        |
| 33600                   | 66,6 | 98,4                    | 26,3        |
| 34000                   | 72,0 | 92,0                    | 24,3        |
| 28700                   | 78,8 | 70,9                    | 22,2        |

## 8.1 BZ GEAR REDUCER - 1750 rpm

## B3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30400                   | 12,1 | 487                     | 144                     |
| 35100                   | 14,0 | 487                     | 125                     |
| 40800                   | 16,3 | 488                     | 107                     |
| 46700                   | 18,7 | 488                     | 93,8                    |
| 50700                   | 20,3 | 487                     | 86,3                    |
| 55000                   | 22,1 | 484                     | 79,0                    |
| 53300                   | 25,5 | 408                     | 68,7                    |
| 53700                   | 27,7 | 378                     | 63,2                    |
| 47800                   | 29,7 | 313                     | 58,8                    |
| 48400                   | 32,1 | 294                     | 54,6                    |
| 40700                   | 38,8 | 204                     | 45,1                    |
| 44200                   | 42,1 | 204                     | 41,6                    |
| 47500                   | 45,3 | 204                     | 38,7                    |
| 48900                   | 48,8 | 195                     | 35,9                    |
| 42900                   | 55,3 | 151                     | 31,7                    |
| 42100                   | 59,7 | 137                     | 29,3                    |

## B3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 54700                   | 12,7 | 840                     | 138                     |
| 62600                   | 14,5 | 841                     | 121                     |
| 72100                   | 16,7 | 841                     | 105                     |
| 77600                   | 18,0 | 841                     | 97,3                    |
| 82100                   | 19,4 | 825                     | 90,3                    |
| 87000                   | 21,0 | 809                     | 83,5                    |
| 90000                   | 23,5 | 746                     | 74,4                    |
| 90000                   | 25,3 | 692                     | 69,1                    |
| 89300                   | 29,2 | 596                     | 59,9                    |
| 65900                   | 33,7 | 381                     | 51,9                    |
| 73900                   | 37,8 | 381                     | 46,2                    |
| 79600                   | 40,8 | 381                     | 42,9                    |
| 90000                   | 47,0 | 373                     | 37,2                    |
| 79500                   | 53,0 | 292                     | 33,0                    |
| 80300                   | 57,4 | 273                     | 30,5                    |
| 78200                   | 62,3 | 245                     | 28,1                    |

## B3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39100                   | 15,6 | 488                     | 112                     |
| 45100                   | 18,0 | 487                     | 97,1                    |
| 52400                   | 20,9 | 487                     | 83,6                    |
| 60000                   | 24,0 | 488                     | 73,0                    |
| 65200                   | 26,1 | 487                     | 67,1                    |
| 70000                   | 28,5 | 479                     | 61,5                    |
| 68600                   | 32,8 | 408                     | 53,4                    |
| 69000                   | 35,6 | 378                     | 49,2                    |
| 61500                   | 38,2 | 314                     | 45,8                    |
| 62200                   | 41,2 | 294                     | 42,4                    |
| 52300                   | 49,8 | 204                     | 35,1                    |
| 56700                   | 54,1 | 204                     | 32,3                    |
| 61000                   | 58,2 | 204                     | 30,1                    |
| 62900                   | 62,8 | 195                     | 27,9                    |
| 55200                   | 71,1 | 151                     | 24,6                    |
| 54200                   | 76,8 | 137                     | 22,8                    |

## B3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66200                   | 15,4 | 841                     | 114                     |
| 75800                   | 17,6 | 841                     | 99,7                    |
| 87200                   | 20,2 | 841                     | 86,6                    |
| 93800                   | 21,8 | 841                     | 80,5                    |
| 99300                   | 23,5 | 825                     | 74,6                    |
| 105000                  | 25,4 | 809                     | 69,0                    |
| 110000                  | 28,5 | 754                     | 61,5                    |
| 110000                  | 30,7 | 700                     | 57,1                    |
| 108000                  | 35,3 | 595                     | 49,5                    |
| 79700                   | 40,8 | 381                     | 42,9                    |
| 89400                   | 45,8 | 381                     | 38,2                    |
| 96300                   | 49,3 | 381                     | 35,5                    |
| 110000                  | 56,9 | 377                     | 30,8                    |
| 96200                   | 64,1 | 292                     | 27,3                    |
| 97100                   | 69,4 | 273                     | 25,2                    |
| 94600                   | 75,4 | 245                     | 23,2                    |

## 8.1 BZ GEAR REDUCER - 1750 rpm

## B4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 60,6 | 62,5                    | 28,9                    |
| 19000                   | 70,3 | 53,8                    | 24,9                    |
| 19000                   | 76,0 | 49,8                    | 23,0                    |
| 19000                   | 91,2 | 41,5                    | 19,2                    |
| 19000                   | 106  | 35,7                    | 16,5                    |
| 19000                   | 115  | 32,9                    | 15,2                    |
| 15000                   | 128  | 23,4                    | 13,7                    |
| 18000                   | 153  | 23,3                    | 11,4                    |
| 19000                   | 178  | 21,2                    | 9,82                    |
| 19000                   | 193  | 19,6                    | 9,06                    |
| 18100                   | 238  | 15,1                    | 7,34                    |
| 16100                   | 275  | 11,6                    | 6,36                    |
| 15300                   | 323  | 9,43                    | 5,42                    |

## B4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 79,0 | 73,1                    | 22,1                    |
| 29000                   | 85,7 | 67,4                    | 20,4                    |
| 29000                   | 93,1 | 62,0                    | 18,8                    |
| 29000                   | 112  | 51,5                    | 15,6                    |
| 29000                   | 128  | 45,3                    | 13,7                    |
| 29000                   | 138  | 42,0                    | 12,7                    |
| 26400                   | 149  | 35,3                    | 11,7                    |
| 29000                   | 180  | 32,2                    | 9,75                    |
| 29000                   | 204  | 28,3                    | 8,58                    |
| 29000                   | 220  | 26,2                    | 7,95                    |
| 29000                   | 256  | 22,6                    | 6,84                    |
| 29000                   | 292  | 19,8                    | 5,98                    |
| 26300                   | 348  | 15,0                    | 5,02                    |

## B4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 51300                   | 63,0 | 162                     | 27,8                    |
| 52800                   | 68,4 | 154                     | 25,6                    |
| 54400                   | 74,4 | 146                     | 23,5                    |
| 55000                   | 81,2 | 135                     | 21,6                    |
| 55000                   | 94,1 | 116                     | 18,6                    |
| 55000                   | 109  | 101                     | 16,1                    |
| 45900                   | 120  | 76,4                    | 14,6                    |
| 50100                   | 131  | 76,4                    | 13,4                    |
| 55000                   | 151  | 72,4                    | 11,6                    |
| 51900                   | 188  | 54,9                    | 9,30                    |
| 52500                   | 223  | 47,0                    | 7,86                    |
| 46200                   | 273  | 33,7                    | 6,42                    |
| 46900                   | 320  | 29,1                    | 5,47                    |

## B4Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 76,8 | 62,2                    | 22,8                    |
| 24000                   | 89,1 | 53,6                    | 19,6                    |
| 24000                   | 96,4 | 49,6                    | 18,2                    |
| 24000                   | 116  | 41,3                    | 15,1                    |
| 24000                   | 134  | 35,6                    | 13,0                    |
| 24000                   | 146  | 32,8                    | 12,0                    |
| 19000                   | 162  | 23,3                    | 10,8                    |
| 22800                   | 195  | 23,3                    | 9,00                    |
| 24000                   | 226  | 21,1                    | 7,74                    |
| 24000                   | 245  | 19,5                    | 7,14                    |
| 22900                   | 302  | 15,1                    | 5,79                    |
| 20400                   | 349  | 11,6                    | 5,01                    |
| 19400                   | 410  | 9,41                    | 4,27                    |

## B4Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 97,8 | 73,3                    | 17,9                    |
| 36000                   | 106  | 67,6                    | 16,5                    |
| 36000                   | 115  | 62,2                    | 15,2                    |
| 36000                   | 139  | 51,7                    | 12,6                    |
| 36000                   | 158  | 45,4                    | 11,1                    |
| 36000                   | 170  | 42,1                    | 10,3                    |
| 32700                   | 184  | 35,3                    | 9,49                    |
| 36000                   | 222  | 32,3                    | 7,88                    |
| 36000                   | 252  | 28,4                    | 6,93                    |
| 36000                   | 272  | 26,3                    | 6,42                    |
| 36000                   | 317  | 22,6                    | 5,53                    |
| 36000                   | 362  | 19,8                    | 4,84                    |
| 32500                   | 431  | 15,0                    | 4,06                    |

## B4Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66000                   | 81,0 | 162                     | 21,6                    |
| 67900                   | 87,9 | 154                     | 19,9                    |
| 69900                   | 95,6 | 146                     | 18,3                    |
| 70000                   | 104  | 134                     | 16,8                    |
| 70000                   | 121  | 115                     | 14,5                    |
| 70000                   | 140  | 99,6                    | 12,5                    |
| 59000                   | 154  | 76,4                    | 11,4                    |
| 64400                   | 168  | 76,4                    | 10,4                    |
| 70000                   | 195  | 71,6                    | 8,99                    |
| 66700                   | 242  | 54,9                    | 7,23                    |
| 67500                   | 286  | 47,0                    | 6,12                    |
| 59400                   | 351  | 33,7                    | 4,99                    |
| 60200                   | 412  | 29,1                    | 4,25                    |

## 8.1 BZ GEAR REDUCER - 1750 rpm

B4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 70,5 | 254                     | 24,8                    |
| 90000                   | 76,7 | 234                     | 22,8                    |
| 90000                   | 82,8 | 217                     | 21,1                    |
| 90000                   | 89,4 | 201                     | 19,6                    |
| 90000                   | 105  | 170                     | 16,6                    |
| 90000                   | 121  | 148                     | 14,5                    |
| 81800                   | 123  | 132                     | 14,2                    |
| 88300                   | 133  | 132                     | 13,1                    |
| 90000                   | 144  | 125                     | 12,2                    |
| 90000                   | 169  | 106                     | 10,3                    |
| 90000                   | 194  | 92,3                    | 9,01                    |
| 85500                   | 235  | 72,4                    | 7,44                    |
| 86500                   | 275  | 62,6                    | 6,36                    |
| 87300                   | 327  | 53,1                    | 5,35                    |

B4Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 85,2 | 257                     | 20,5                    |
| 110000                  | 92,8 | 236                     | 18,9                    |
| 110000                  | 100  | 219                     | 17,5                    |
| 110000                  | 108  | 203                     | 16,2                    |
| 110000                  | 127  | 172                     | 13,8                    |
| 110000                  | 146  | 150                     | 12,0                    |
| 99000                   | 149  | 132                     | 11,7                    |
| 107000                  | 161  | 132                     | 10,9                    |
| 110000                  | 174  | 126                     | 10,1                    |
| 110000                  | 205  | 107                     | 8,55                    |
| 110000                  | 235  | 93,2                    | 7,45                    |
| 103000                  | 285  | 72,4                    | 6,15                    |
| 105000                  | 333  | 62,6                    | 5,26                    |
| 106000                  | 396  | 53,1                    | 4,42                    |

## 8.2 BZ GEAR REDUCER - 1400 rpm

## B3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6060                    | 13,3 | 71,2                    | 105                     |
| 6790                    | 14,9 | 71,2                    | 94,1                    |
| 7670                    | 16,8 | 71,2                    | 83,4                    |
| 9000                    | 20,1 | 69,9                    | 69,7                    |
| 9000                    | 21,8 | 64,4                    | 64,3                    |
| 9000                    | 23,7 | 59,3                    | 59,1                    |
| 9000                    | 28,5 | 49,2                    | 49,1                    |
| 9000                    | 32,4 | 43,3                    | 43,2                    |
| 9000                    | 35,0 | 40,1                    | 40,0                    |
| 6850                    | 37,9 | 28,2                    | 36,9                    |
| 8250                    | 45,6 | 28,2                    | 30,7                    |
| 9000                    | 51,9 | 27,1                    | 27,0                    |
| 9000                    | 56,0 | 25,1                    | 25,0                    |
| 8890                    | 60,6 | 22,9                    | 23,1                    |
| 6680                    | 64,0 | 16,3                    | 21,9                    |
| 7720                    | 69,8 | 17,3                    | 20,1                    |

## B3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11100                   | 12,0 | 144                     | 116                     |
| 12300                   | 14,0 | 138                     | 100                     |
| 13000                   | 15,1 | 135                     | 93,0                    |
| 13700                   | 16,3 | 131                     | 85,9                    |
| 14500                   | 17,7 | 128                     | 79,2                    |
| 15300                   | 19,2 | 124                     | 72,8                    |
| 16200                   | 21,0 | 120                     | 66,7                    |
| 17800                   | 24,3 | 114                     | 57,5                    |
| 14600                   | 28,2 | 80,9                    | 49,7                    |
| 12100                   | 30,9 | 61,0                    | 45,2                    |
| 13200                   | 33,8 | 61,0                    | 41,5                    |
| 15300                   | 39,1 | 61,0                    | 35,8                    |
| 17500                   | 45,3 | 60,3                    | 30,9                    |
| 16200                   | 49,6 | 50,9                    | 28,2                    |
| 15400                   | 53,7 | 44,7                    | 26,1                    |
| 14500                   | 58,4 | 38,7                    | 24,0                    |

## B3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19500                   | 12,3 | 246                     | 113                     |
| 22600                   | 14,3 | 246                     | 97,8                    |
| 26400                   | 16,8 | 246                     | 83,6                    |
| 28700                   | 18,2 | 246                     | 77,0                    |
| 29000                   | 19,8 | 229                     | 70,7                    |
| 29000                   | 21,4 | 212                     | 65,5                    |
| 29000                   | 23,1 | 196                     | 60,7                    |
| 29000                   | 27,1 | 167                     | 51,6                    |
| 29000                   | 31,2 | 145                     | 44,9                    |
| 23300                   | 34,4 | 106                     | 40,7                    |
| 25100                   | 37,1 | 106                     | 37,7                    |
| 29000                   | 43,7 | 104                     | 32,1                    |
| 29000                   | 50,1 | 90,2                    | 27,9                    |
| 27200                   | 53,8 | 78,7                    | 26,0                    |
| 27500                   | 58,2 | 73,5                    | 24,1                    |
| 23200                   | 63,7 | 56,8                    | 22,0                    |

## B3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7530                    | 16,5 | 71,2                    | 84,9                    |
| 8430                    | 18,5 | 71,2                    | 75,8                    |
| 9520                    | 20,9 | 71,2                    | 67,1                    |
| 11000                   | 25,0 | 68,8                    | 56,1                    |
| 11000                   | 27,1 | 63,4                    | 51,8                    |
| 11000                   | 29,4 | 58,3                    | 47,6                    |
| 11000                   | 35,4 | 48,4                    | 39,5                    |
| 11000                   | 40,3 | 42,6                    | 34,8                    |
| 11000                   | 43,5 | 39,5                    | 32,2                    |
| 8500                    | 47,1 | 28,2                    | 29,7                    |
| 10200                   | 56,7 | 28,2                    | 24,7                    |
| 11000                   | 64,4 | 26,6                    | 21,7                    |
| 11000                   | 69,5 | 24,7                    | 20,1                    |
| 11000                   | 75,3 | 22,8                    | 18,6                    |
| 8290                    | 79,5 | 16,3                    | 17,6                    |
| 9580                    | 86,6 | 17,2                    | 16,2                    |

## B3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14100                   | 15,3 | 144                     | 91,7                    |
| 15700                   | 17,7 | 138                     | 79,1                    |
| 16500                   | 19,1 | 135                     | 73,3                    |
| 17400                   | 20,7 | 131                     | 67,8                    |
| 18400                   | 22,4 | 128                     | 62,5                    |
| 19400                   | 24,4 | 124                     | 57,4                    |
| 20500                   | 26,6 | 120                     | 52,6                    |
| 22500                   | 30,9 | 114                     | 45,4                    |
| 18700                   | 35,7 | 81,7                    | 39,2                    |
| 15400                   | 39,2 | 61,0                    | 35,7                    |
| 16800                   | 42,8 | 61,0                    | 32,7                    |
| 19500                   | 49,6 | 61,1                    | 28,2                    |
| 22200                   | 57,4 | 60,2                    | 24,4                    |
| 20600                   | 62,9 | 51,0                    | 22,2                    |
| 19500                   | 68,1 | 44,6                    | 20,6                    |
| 18400                   | 74,0 | 38,8                    | 18,9                    |

## B3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24100                   | 15,3 | 246                     | 91,7                    |
| 28000                   | 17,7 | 246                     | 79,0                    |
| 32700                   | 20,7 | 246                     | 67,5                    |
| 35500                   | 22,5 | 246                     | 62,2                    |
| 36000                   | 24,5 | 229                     | 57,2                    |
| 36000                   | 26,4 | 212                     | 53,0                    |
| 36000                   | 28,5 | 197                     | 49,1                    |
| 36000                   | 33,6 | 167                     | 41,7                    |
| 36000                   | 38,6 | 146                     | 36,3                    |
| 28800                   | 42,5 | 106                     | 32,9                    |
| 31100                   | 45,9 | 105                     | 30,5                    |
| 36000                   | 54,0 | 104                     | 25,9                    |
| 36000                   | 62,0 | 90,5                    | 22,6                    |
| 33600                   | 66,6 | 78,7                    | 21,0                    |
| 34000                   | 72,0 | 73,6                    | 19,4                    |
| 28700                   | 78,8 | 56,7                    | 17,8                    |

## 8.2 BZ GEAR REDUCER - 1400 rpm

## B3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30400                   | 12,1 | 390                     | 115                     |
| 35100                   | 14,0 | 390                     | 99,9                    |
| 40800                   | 16,3 | 390                     | 85,9                    |
| 46700                   | 18,7 | 390                     | 75,1                    |
| 50700                   | 20,3 | 390                     | 69,0                    |
| 55000                   | 22,1 | 387                     | 63,2                    |
| 53300                   | 25,5 | 326                     | 55,0                    |
| 53700                   | 27,7 | 302                     | 50,6                    |
| 47800                   | 29,7 | 251                     | 47,1                    |
| 48400                   | 32,1 | 235                     | 43,7                    |
| 40700                   | 38,8 | 164                     | 36,1                    |
| 44200                   | 42,1 | 164                     | 33,2                    |
| 47500                   | 45,3 | 164                     | 30,9                    |
| 48900                   | 48,8 | 156                     | 28,7                    |
| 42900                   | 55,3 | 121                     | 25,3                    |
| 42100                   | 59,7 | 110                     | 23,4                    |

## B3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 54700                   | 12,7 | 672                     | 110                     |
| 62600                   | 14,5 | 673                     | 96,4                    |
| 72100                   | 16,7 | 673                     | 83,8                    |
| 77600                   | 18,0 | 673                     | 77,9                    |
| 82100                   | 19,4 | 660                     | 72,2                    |
| 87000                   | 21,0 | 647                     | 66,8                    |
| 90000                   | 23,5 | 597                     | 59,5                    |
| 90000                   | 25,3 | 554                     | 55,2                    |
| 89300                   | 29,2 | 477                     | 47,9                    |
| 65900                   | 33,7 | 305                     | 41,5                    |
| 73900                   | 37,8 | 305                     | 37,0                    |
| 79600                   | 40,8 | 305                     | 34,3                    |
| 90000                   | 47,0 | 299                     | 29,8                    |
| 79500                   | 53,0 | 234                     | 26,4                    |
| 80300                   | 57,4 | 218                     | 24,4                    |
| 78200                   | 62,3 | 196                     | 22,5                    |

## B3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39100                   | 15,6 | 390                     | 89,7                    |
| 45100                   | 18,0 | 390                     | 77,7                    |
| 52400                   | 20,9 | 390                     | 66,9                    |
| 60000                   | 24,0 | 390                     | 58,4                    |
| 65200                   | 26,1 | 390                     | 53,7                    |
| 70000                   | 28,5 | 384                     | 49,2                    |
| 68600                   | 32,8 | 326                     | 42,7                    |
| 69000                   | 35,6 | 302                     | 39,3                    |
| 61500                   | 38,2 | 251                     | 36,6                    |
| 62200                   | 41,2 | 235                     | 33,9                    |
| 52300                   | 49,8 | 164                     | 28,1                    |
| 56700                   | 54,1 | 163                     | 25,9                    |
| 61000                   | 58,2 | 163                     | 24,1                    |
| 62900                   | 62,8 | 156                     | 22,3                    |
| 55200                   | 71,1 | 121                     | 19,7                    |
| 54200                   | 76,8 | 110                     | 18,2                    |

## B3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66200                   | 15,4 | 673                     | 91,2                    |
| 75800                   | 17,6 | 673                     | 79,7                    |
| 87200                   | 20,2 | 673                     | 69,3                    |
| 93800                   | 21,8 | 673                     | 64,4                    |
| 99300                   | 23,5 | 660                     | 59,7                    |
| 105000                  | 25,4 | 647                     | 55,2                    |
| 110000                  | 28,5 | 603                     | 49,2                    |
| 110000                  | 30,7 | 560                     | 45,7                    |
| 108000                  | 35,3 | 476                     | 39,6                    |
| 79700                   | 40,8 | 305                     | 34,3                    |
| 89400                   | 45,8 | 305                     | 30,6                    |
| 96300                   | 49,3 | 305                     | 28,4                    |
| 110000                  | 56,9 | 302                     | 24,6                    |
| 96200                   | 64,1 | 234                     | 21,8                    |
| 97100                   | 69,4 | 218                     | 20,2                    |
| 94600                   | 75,4 | 196                     | 18,6                    |

## 8.2 BZ GEAR REDUCER - 1400 rpm

## B4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 60,6 | 50,0                    | 23,1                    |
| 19000                   | 70,3 | 43,1                    | 19,9                    |
| 19000                   | 76,0 | 39,8                    | 18,4                    |
| 19000                   | 91,2 | 33,2                    | 15,3                    |
| 19000                   | 106  | 28,6                    | 13,2                    |
| 19000                   | 115  | 26,4                    | 12,2                    |
| 15000                   | 128  | 18,7                    | 11,0                    |
| 18000                   | 153  | 18,6                    | 9,12                    |
| 19000                   | 178  | 17,0                    | 7,85                    |
| 19000                   | 193  | 15,7                    | 7,25                    |
| 18100                   | 238  | 12,1                    | 5,88                    |
| 16100                   | 275  | 9,32                    | 5,09                    |
| 15300                   | 323  | 7,55                    | 4,33                    |

## B4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 79,0 | 58,5                    | 17,7                    |
| 29000                   | 85,7 | 53,9                    | 16,3                    |
| 29000                   | 93,1 | 49,6                    | 15,0                    |
| 29000                   | 112  | 41,2                    | 12,5                    |
| 29000                   | 128  | 36,2                    | 11,0                    |
| 29000                   | 138  | 33,6                    | 10,2                    |
| 26400                   | 149  | 28,2                    | 9,39                    |
| 29000                   | 180  | 25,7                    | 7,80                    |
| 29000                   | 204  | 22,6                    | 6,86                    |
| 29000                   | 220  | 21,0                    | 6,36                    |
| 29000                   | 256  | 18,1                    | 5,47                    |
| 29000                   | 292  | 15,8                    | 4,79                    |
| 26300                   | 348  | 12,0                    | 4,02                    |

## B4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 51300                   | 63,0 | 130                     | 22,2                    |
| 52800                   | 68,4 | 123                     | 20,5                    |
| 54400                   | 74,4 | 116                     | 18,8                    |
| 55000                   | 81,2 | 108                     | 17,2                    |
| 55000                   | 94,1 | 93,2                    | 14,9                    |
| 55000                   | 109  | 80,5                    | 12,9                    |
| 45900                   | 120  | 61,1                    | 11,7                    |
| 50100                   | 131  | 61,1                    | 10,7                    |
| 55000                   | 151  | 57,9                    | 9,25                    |
| 51900                   | 188  | 43,9                    | 7,44                    |
| 52500                   | 223  | 37,6                    | 6,29                    |
| 46200                   | 273  | 27,0                    | 5,13                    |
| 46900                   | 320  | 23,3                    | 4,37                    |

## B4Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 76,8 | 49,8                    | 18,2                    |
| 24000                   | 89,1 | 42,9                    | 15,7                    |
| 24000                   | 96,4 | 39,7                    | 14,5                    |
| 24000                   | 116  | 33,1                    | 12,1                    |
| 24000                   | 134  | 28,5                    | 10,4                    |
| 24000                   | 146  | 26,3                    | 9,61                    |
| 19000                   | 162  | 18,7                    | 8,64                    |
| 22800                   | 195  | 18,7                    | 7,20                    |
| 24000                   | 226  | 16,9                    | 6,19                    |
| 24000                   | 245  | 15,6                    | 5,72                    |
| 22900                   | 302  | 12,1                    | 4,63                    |
| 20400                   | 349  | 9,31                    | 4,01                    |
| 19400                   | 410  | 7,53                    | 3,42                    |

## B4Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 97,8 | 58,7                    | 14,3                    |
| 36000                   | 106  | 54,1                    | 13,2                    |
| 36000                   | 115  | 49,8                    | 12,1                    |
| 36000                   | 139  | 41,3                    | 10,1                    |
| 36000                   | 158  | 36,4                    | 8,87                    |
| 36000                   | 170  | 33,7                    | 8,22                    |
| 32700                   | 184  | 28,2                    | 7,59                    |
| 36000                   | 222  | 25,8                    | 6,30                    |
| 36000                   | 252  | 22,7                    | 5,55                    |
| 36000                   | 272  | 21,1                    | 5,14                    |
| 36000                   | 317  | 18,1                    | 4,42                    |
| 36000                   | 362  | 15,9                    | 3,87                    |
| 32500                   | 431  | 12,0                    | 3,25                    |

## B4Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66000                   | 81,0 | 130                     | 17,3                    |
| 67900                   | 87,9 | 123                     | 15,9                    |
| 69900                   | 95,6 | 116                     | 14,6                    |
| 70000                   | 104  | 107                     | 13,4                    |
| 70000                   | 121  | 92,2                    | 11,6                    |
| 70000                   | 140  | 79,7                    | 10,0                    |
| 59000                   | 154  | 61,1                    | 9,10                    |
| 64400                   | 168  | 61,1                    | 8,34                    |
| 70000                   | 195  | 57,3                    | 7,19                    |
| 66700                   | 242  | 43,9                    | 5,79                    |
| 67500                   | 286  | 37,6                    | 4,89                    |
| 59400                   | 351  | 27,0                    | 3,99                    |
| 60200                   | 412  | 23,3                    | 3,40                    |

## 8.2 BZ GEAR REDUCER - 1400 rpm

## B4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 70,5 | 204                     | 19,9                    |
| 90000                   | 76,7 | 187                     | 18,3                    |
| 90000                   | 82,8 | 173                     | 16,9                    |
| 90000                   | 89,4 | 160                     | 15,7                    |
| 90000                   | 105  | 136                     | 13,3                    |
| 90000                   | 121  | 119                     | 11,6                    |
| 81800                   | 123  | 106                     | 11,3                    |
| 88300                   | 133  | 106                     | 10,5                    |
| 90000                   | 144  | 99,8                    | 9,74                    |
| 90000                   | 169  | 84,8                    | 8,28                    |
| 90000                   | 194  | 73,8                    | 7,21                    |
| 85500                   | 235  | 57,9                    | 5,95                    |
| 86500                   | 275  | 50,0                    | 5,09                    |
| 87300                   | 327  | 42,5                    | 4,28                    |

## B4Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 85,2 | 206                     | 16,4                    |
| 110000                  | 92,8 | 189                     | 15,1                    |
| 110000                  | 100  | 175                     | 14,0                    |
| 110000                  | 108  | 162                     | 13,0                    |
| 110000                  | 127  | 138                     | 11,0                    |
| 110000                  | 146  | 120                     | 9,58                    |
| 99000                   | 149  | 106                     | 9,38                    |
| 107000                  | 161  | 106                     | 8,69                    |
| 110000                  | 174  | 101                     | 8,05                    |
| 110000                  | 205  | 85,6                    | 6,84                    |
| 110000                  | 235  | 74,6                    | 5,96                    |
| 103000                  | 285  | 57,9                    | 4,92                    |
| 105000                  | 333  | 50,1                    | 4,20                    |
| 106000                  | 396  | 42,5                    | 3,54                    |

PBZ

B3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 6060                    | 13,3 | 57,9                    | 85,8        |
| 6790                    | 14,9 | 58,0                    | 76,7        |
| 7670                    | 16,8 | 58,0                    | 67,9        |
| 9000                    | 20,1 | 56,9                    | 56,7        |
| 9000                    | 21,8 | 52,5                    | 52,3        |
| 9000                    | 23,7 | 48,3                    | 48,1        |
| 9000                    | 28,5 | 40,1                    | 40,0        |
| 9000                    | 32,4 | 35,3                    | 35,2        |
| 9000                    | 35,0 | 32,7                    | 32,6        |
| 6850                    | 37,9 | 23,0                    | 30,1        |
| 8250                    | 45,6 | 23,0                    | 25,0        |
| 9000                    | 51,9 | 22,0                    | 22,0        |
| 9000                    | 56,0 | 20,4                    | 20,4        |
| 8890                    | 60,6 | 18,6                    | 18,8        |
| 6680                    | 64,0 | 13,2                    | 17,8        |
| 7720                    | 69,8 | 14,1                    | 16,3        |

B3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11100                   | 12,0 | 117                     | 94,8        |
| 12300                   | 14,0 | 112                     | 81,7        |
| 13000                   | 15,1 | 110                     | 75,7        |
| 13700                   | 16,3 | 107                     | 69,9        |
| 14500                   | 17,7 | 104                     | 64,5        |
| 15300                   | 19,2 | 101                     | 59,3        |
| 16200                   | 21,0 | 97,7                    | 54,3        |
| 17800                   | 24,3 | 92,6                    | 46,9        |
| 14600                   | 28,2 | 65,9                    | 40,5        |
| 12100                   | 30,9 | 49,7                    | 36,8        |
| 13200                   | 33,8 | 49,6                    | 33,8        |
| 15300                   | 39,1 | 49,6                    | 29,1        |
| 17500                   | 45,3 | 49,1                    | 25,2        |
| 16200                   | 49,6 | 41,4                    | 23,0        |
| 15400                   | 53,7 | 36,4                    | 21,2        |
| 14500                   | 58,4 | 31,5                    | 19,5        |

B3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19500                   | 12,3 | 200                     | 92,4        |
| 22600                   | 14,3 | 200                     | 79,6        |
| 26400                   | 16,8 | 200                     | 68,1        |
| 28700                   | 18,2 | 200                     | 62,7        |
| 29000                   | 19,8 | 186                     | 57,6        |
| 29000                   | 21,4 | 172                     | 53,4        |
| 29000                   | 23,1 | 160                     | 49,4        |
| 29000                   | 27,1 | 136                     | 42,0        |
| 29000                   | 31,2 | 118                     | 36,6        |
| 23300                   | 34,4 | 85,9                    | 33,2        |
| 25100                   | 37,1 | 85,9                    | 30,7        |
| 29000                   | 43,7 | 84,4                    | 26,1        |
| 29000                   | 50,1 | 73,5                    | 22,7        |
| 27200                   | 53,8 | 64,1                    | 21,2        |
| 27500                   | 58,2 | 59,9                    | 19,6        |
| 23200                   | 63,7 | 46,3                    | 17,9        |

B3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 7530                    | 16,5 | 58,0                    | 69,1        |
| 8430                    | 18,5 | 58,0                    | 61,7        |
| 9520                    | 20,9 | 58,0                    | 54,7        |
| 11000                   | 25,0 | 56,0                    | 45,7        |
| 11000                   | 27,1 | 51,6                    | 42,1        |
| 11000                   | 29,4 | 47,5                    | 38,8        |
| 11000                   | 35,4 | 39,4                    | 32,2        |
| 11000                   | 40,3 | 34,7                    | 28,3        |
| 11000                   | 43,5 | 32,1                    | 26,2        |
| 8500                    | 47,1 | 22,9                    | 24,2        |
| 10200                   | 56,7 | 22,9                    | 20,1        |
| 11000                   | 64,4 | 21,7                    | 17,7        |
| 11000                   | 69,5 | 20,1                    | 16,4        |
| 11000                   | 75,3 | 18,6                    | 15,1        |
| 8290                    | 79,5 | 13,2                    | 14,3        |
| 9580                    | 86,6 | 14,0                    | 13,2        |

B3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 14100                   | 15,3 | 117                     | 74,7        |
| 15700                   | 17,7 | 112                     | 64,4        |
| 16500                   | 19,1 | 110                     | 59,7        |
| 17400                   | 20,7 | 107                     | 55,2        |
| 18400                   | 22,4 | 104                     | 50,9        |
| 19400                   | 24,4 | 101                     | 46,8        |
| 20500                   | 26,6 | 97,8                    | 42,8        |
| 22500                   | 30,9 | 92,6                    | 37,0        |
| 18700                   | 35,7 | 66,6                    | 32,0        |
| 15400                   | 39,2 | 49,7                    | 29,1        |
| 16800                   | 42,8 | 49,7                    | 26,6        |
| 19500                   | 49,6 | 49,8                    | 23,0        |
| 22200                   | 57,4 | 49,0                    | 19,9        |
| 20600                   | 62,9 | 41,6                    | 18,1        |
| 19500                   | 68,1 | 36,4                    | 16,7        |
| 18400                   | 74,0 | 31,6                    | 15,4        |

B3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24100                   | 15,3 | 201                     | 74,7        |
| 28000                   | 17,7 | 200                     | 64,3        |
| 32700                   | 20,7 | 200                     | 55,0        |
| 35500                   | 22,5 | 200                     | 50,7        |
| 36000                   | 24,5 | 187                     | 46,5        |
| 36000                   | 26,4 | 173                     | 43,1        |
| 36000                   | 28,5 | 160                     | 40,0        |
| 36000                   | 33,6 | 136                     | 33,9        |
| 36000                   | 38,6 | 119                     | 29,6        |
| 28800                   | 42,5 | 86,0                    | 26,8        |
| 31100                   | 45,9 | 85,9                    | 24,8        |
| 36000                   | 54,0 | 84,6                    | 21,1        |
| 36000                   | 62,0 | 73,7                    | 18,4        |
| 33600                   | 66,6 | 64,1                    | 17,1        |
| 34000                   | 72,0 | 59,9                    | 15,8        |
| 28700                   | 78,8 | 46,2                    | 14,5        |

## 8.3 BZ GEAR REDUCER - 1140 rpm

## B3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30400                   | 12,1 | 317                     | 93,9                    |
| 35100                   | 14,0 | 317                     | 81,3                    |
| 40800                   | 16,3 | 318                     | 70,0                    |
| 46700                   | 18,7 | 318                     | 61,1                    |
| 50700                   | 20,3 | 317                     | 56,2                    |
| 55000                   | 22,1 | 315                     | 51,5                    |
| 53300                   | 25,5 | 266                     | 44,8                    |
| 53700                   | 27,7 | 246                     | 41,2                    |
| 47800                   | 29,7 | 204                     | 38,3                    |
| 48400                   | 32,1 | 191                     | 35,5                    |
| 40700                   | 38,8 | 133                     | 29,4                    |
| 44200                   | 42,1 | 133                     | 27,1                    |
| 47500                   | 45,3 | 133                     | 25,2                    |
| 48900                   | 48,8 | 127                     | 23,4                    |
| 42900                   | 55,3 | 98,6                    | 20,6                    |
| 42100                   | 59,7 | 89,5                    | 19,1                    |

## B3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 54700                   | 12,7 | 547                     | 89,8                    |
| 62600                   | 14,5 | 548                     | 78,5                    |
| 72100                   | 16,7 | 548                     | 68,2                    |
| 77600                   | 18,0 | 548                     | 63,4                    |
| 82100                   | 19,4 | 538                     | 58,8                    |
| 87000                   | 21,0 | 527                     | 54,4                    |
| 90000                   | 23,5 | 486                     | 48,5                    |
| 90000                   | 25,3 | 451                     | 45,0                    |
| 89300                   | 29,2 | 388                     | 39,0                    |
| 65900                   | 33,7 | 248                     | 33,8                    |
| 73900                   | 37,8 | 248                     | 30,1                    |
| 79600                   | 40,8 | 248                     | 28,0                    |
| 90000                   | 47,0 | 243                     | 24,3                    |
| 79500                   | 53,0 | 190                     | 21,5                    |
| 80300                   | 57,4 | 178                     | 19,9                    |
| 78200                   | 62,3 | 159                     | 18,3                    |

## B3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39100                   | 15,6 | 318                     | 73,0                    |
| 45100                   | 18,0 | 317                     | 63,3                    |
| 52400                   | 20,9 | 317                     | 54,4                    |
| 60000                   | 24,0 | 318                     | 47,6                    |
| 65200                   | 26,1 | 317                     | 43,7                    |
| 70000                   | 28,5 | 312                     | 40,1                    |
| 68600                   | 32,8 | 266                     | 34,8                    |
| 69000                   | 35,6 | 246                     | 32,0                    |
| 61500                   | 38,2 | 204                     | 29,8                    |
| 62200                   | 41,2 | 191                     | 27,6                    |
| 52300                   | 49,8 | 133                     | 22,9                    |
| 56700                   | 54,1 | 133                     | 21,1                    |
| 61000                   | 58,2 | 133                     | 19,6                    |
| 62900                   | 62,8 | 127                     | 18,2                    |
| 55200                   | 71,1 | 98,6                    | 16,0                    |
| 54200                   | 76,8 | 89,6                    | 14,8                    |

## B3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66200                   | 15,4 | 548                     | 74,3                    |
| 75800                   | 17,6 | 548                     | 64,9                    |
| 87200                   | 20,2 | 548                     | 56,4                    |
| 93800                   | 21,8 | 548                     | 52,4                    |
| 99300                   | 23,5 | 537                     | 48,6                    |
| 105000                  | 25,4 | 527                     | 44,9                    |
| 110000                  | 28,5 | 491                     | 40,1                    |
| 110000                  | 30,7 | 456                     | 37,2                    |
| 108000                  | 35,3 | 388                     | 32,3                    |
| 79700                   | 40,8 | 248                     | 27,9                    |
| 89400                   | 45,8 | 248                     | 24,9                    |
| 96300                   | 49,3 | 248                     | 23,1                    |
| 110000                  | 56,9 | 246                     | 20,1                    |
| 96200                   | 64,1 | 190                     | 17,8                    |
| 97100                   | 69,4 | 178                     | 16,4                    |
| 94600                   | 75,4 | 159                     | 15,1                    |

## 8.3 BZ GEAR REDUCER - 1140 rpm

## B4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 60,6 | 40,7                    | 18,8                    |
| 19000                   | 70,3 | 35,1                    | 16,2                    |
| 19000                   | 76,0 | 32,4                    | 15,0                    |
| 19000                   | 91,2 | 27,0                    | 12,5                    |
| 19000                   | 106  | 23,3                    | 10,8                    |
| 19000                   | 115  | 21,5                    | 9,93                    |
| 15000                   | 128  | 15,2                    | 8,92                    |
| 18000                   | 153  | 15,2                    | 7,43                    |
| 19000                   | 178  | 13,8                    | 6,39                    |
| 19000                   | 193  | 12,8                    | 5,90                    |
| 18100                   | 238  | 9,83                    | 4,78                    |
| 16100                   | 275  | 7,59                    | 4,14                    |
| 15300                   | 323  | 6,15                    | 3,53                    |

## B4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 79,0 | 47,6                    | 14,4                    |
| 29000                   | 85,7 | 43,9                    | 13,3                    |
| 29000                   | 93,1 | 40,4                    | 12,2                    |
| 29000                   | 112  | 33,5                    | 10,2                    |
| 29000                   | 128  | 29,5                    | 8,94                    |
| 29000                   | 138  | 27,3                    | 8,28                    |
| 26400                   | 149  | 23,0                    | 7,65                    |
| 29000                   | 180  | 21,0                    | 6,35                    |
| 29000                   | 204  | 18,4                    | 5,59                    |
| 29000                   | 220  | 17,1                    | 5,18                    |
| 29000                   | 256  | 14,7                    | 4,45                    |
| 29000                   | 292  | 12,9                    | 3,90                    |
| 26300                   | 348  | 9,77                    | 3,27                    |

## B4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 51300                   | 63,0 | 106                     | 18,1                    |
| 52800                   | 68,4 | 100                     | 16,7                    |
| 54400                   | 74,4 | 94,8                    | 15,3                    |
| 55000                   | 81,2 | 87,9                    | 14,0                    |
| 55000                   | 94,1 | 75,9                    | 12,1                    |
| 55000                   | 109  | 65,6                    | 10,5                    |
| 45900                   | 120  | 49,8                    | 9,53                    |
| 50100                   | 131  | 49,8                    | 8,73                    |
| 55000                   | 151  | 47,2                    | 7,53                    |
| 51900                   | 188  | 35,8                    | 6,06                    |
| 52500                   | 223  | 30,6                    | 5,12                    |
| 46200                   | 273  | 22,0                    | 4,18                    |
| 46900                   | 320  | 19,0                    | 3,56                    |

## B4Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 76,8 | 40,5                    | 14,8                    |
| 24000                   | 89,1 | 34,9                    | 12,8                    |
| 24000                   | 96,4 | 32,3                    | 11,8                    |
| 24000                   | 116  | 26,9                    | 9,86                    |
| 24000                   | 134  | 23,2                    | 8,48                    |
| 24000                   | 146  | 21,4                    | 7,83                    |
| 19000                   | 162  | 15,2                    | 7,03                    |
| 22800                   | 195  | 15,2                    | 5,86                    |
| 24000                   | 226  | 13,8                    | 5,04                    |
| 24000                   | 245  | 12,7                    | 4,65                    |
| 22900                   | 302  | 9,84                    | 3,77                    |
| 20400                   | 349  | 7,58                    | 3,27                    |
| 19400                   | 410  | 6,13                    | 2,78                    |

## B4Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 97,8 | 47,8                    | 11,7                    |
| 36000                   | 106  | 44,1                    | 10,8                    |
| 36000                   | 115  | 40,5                    | 9,89                    |
| 36000                   | 139  | 33,6                    | 8,21                    |
| 36000                   | 158  | 29,6                    | 7,23                    |
| 36000                   | 170  | 27,4                    | 6,70                    |
| 32700                   | 184  | 23,0                    | 6,18                    |
| 36000                   | 222  | 21,0                    | 5,13                    |
| 36000                   | 252  | 18,5                    | 4,52                    |
| 36000                   | 272  | 17,1                    | 4,19                    |
| 36000                   | 317  | 14,7                    | 3,60                    |
| 36000                   | 362  | 12,9                    | 3,15                    |
| 32500                   | 431  | 9,77                    | 2,64                    |

## B4Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66000                   | 81,0 | 106                     | 14,1                    |
| 67900                   | 87,9 | 100                     | 13,0                    |
| 69900                   | 95,6 | 94,9                    | 11,9                    |
| 70000                   | 104  | 87,0                    | 10,9                    |
| 70000                   | 121  | 75,1                    | 9,42                    |
| 70000                   | 140  | 64,9                    | 8,15                    |
| 59000                   | 154  | 49,8                    | 7,41                    |
| 64400                   | 168  | 49,8                    | 6,79                    |
| 70000                   | 195  | 46,7                    | 5,86                    |
| 66700                   | 242  | 35,8                    | 4,71                    |
| 67500                   | 286  | 30,6                    | 3,98                    |
| 59400                   | 351  | 22,0                    | 3,25                    |
| 60200                   | 412  | 19,0                    | 2,77                    |

8.3 BZ GEAR REDUCER - 1140 rpm

B4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 90000                   | 70,5 | 166                     | 16,2        |
| 90000                   | 76,7 | 152                     | 14,9        |
| 90000                   | 82,8 | 141                     | 13,8        |
| 90000                   | 89,4 | 131                     | 12,8        |
| 90000                   | 105  | 111                     | 10,8        |
| 90000                   | 121  | 96,7                    | 9,44        |
| 81800                   | 123  | 86,0                    | 9,24        |
| 88300                   | 133  | 86,0                    | 8,56        |
| 90000                   | 144  | 81,2                    | 7,93        |
| 90000                   | 169  | 69,0                    | 6,74        |
| 90000                   | 194  | 60,1                    | 5,87        |
| 85500                   | 235  | 47,2                    | 4,85        |
| 86500                   | 275  | 40,7                    | 4,14        |
| 87300                   | 327  | 34,6                    | 3,49        |

B4Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 110000                  | 85,2 | 167                     | 13,4        |
| 110000                  | 92,8 | 154                     | 12,3        |
| 110000                  | 100  | 143                     | 11,4        |
| 110000                  | 108  | 132                     | 10,5        |
| 110000                  | 127  | 112                     | 8,96        |
| 110000                  | 146  | 97,7                    | 7,80        |
| 99000                   | 149  | 86,0                    | 7,64        |
| 107000                  | 161  | 86,0                    | 7,08        |
| 110000                  | 174  | 82,1                    | 6,56        |
| 110000                  | 205  | 69,7                    | 5,57        |
| 110000                  | 235  | 60,7                    | 4,85        |
| 103000                  | 285  | 47,2                    | 4,01        |
| 105000                  | 333  | 40,8                    | 3,42        |
| 106000                  | 396  | 34,6                    | 2,88        |

PBZ

B3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 6160                    | 13,3 | 46,5                    | 67,8        |
| 6900                    | 14,9 | 46,5                    | 60,5        |
| 7790                    | 16,8 | 46,5                    | 53,6        |
| 9000                    | 20,1 | 44,9                    | 44,8        |
| 9000                    | 21,8 | 41,4                    | 41,3        |
| 9000                    | 23,7 | 38,1                    | 38,0        |
| 9000                    | 28,5 | 31,6                    | 31,6        |
| 9000                    | 32,4 | 27,8                    | 27,8        |
| 9000                    | 35,0 | 25,8                    | 25,7        |
| 6950                    | 37,9 | 18,4                    | 23,8        |
| 8380                    | 45,6 | 18,4                    | 19,7        |
| 9000                    | 51,9 | 17,4                    | 17,4        |
| 9000                    | 56,0 | 16,1                    | 16,1        |
| 9000                    | 60,6 | 14,9                    | 14,8        |
| 6750                    | 64,0 | 10,6                    | 14,1        |
| 7880                    | 69,8 | 11,3                    | 12,9        |

B3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12300                   | 12,0 | 102                     | 74,8        |
| 14100                   | 14,0 | 101                     | 64,5        |
| 14800                   | 15,1 | 98,5                    | 59,8        |
| 15700                   | 16,3 | 96,6                    | 55,2        |
| 16600                   | 17,7 | 93,8                    | 50,9        |
| 17500                   | 19,2 | 91,0                    | 46,8        |
| 18500                   | 21,0 | 88,1                    | 42,9        |
| 19000                   | 24,3 | 78,3                    | 37,0        |
| 16700                   | 28,2 | 59,5                    | 32,0        |
| 12300                   | 30,9 | 39,9                    | 29,1        |
| 13400                   | 33,8 | 39,8                    | 26,7        |
| 15600                   | 39,1 | 39,8                    | 23,0        |
| 17800                   | 45,3 | 39,4                    | 19,9        |
| 16500                   | 49,6 | 33,2                    | 18,1        |
| 15700                   | 53,7 | 29,2                    | 16,8        |
| 14800                   | 58,4 | 25,4                    | 15,4        |

B3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19800                   | 12,3 | 161                     | 72,9        |
| 23000                   | 14,3 | 161                     | 62,8        |
| 26900                   | 16,8 | 161                     | 53,7        |
| 29000                   | 18,2 | 160                     | 49,5        |
| 29000                   | 19,8 | 147                     | 45,5        |
| 29000                   | 21,4 | 136                     | 42,1        |
| 29000                   | 23,1 | 126                     | 39,0        |
| 29000                   | 27,1 | 107                     | 33,2        |
| 29000                   | 31,2 | 93,3                    | 28,9        |
| 23600                   | 34,4 | 68,9                    | 26,2        |
| 25500                   | 37,1 | 68,9                    | 24,3        |
| 29000                   | 43,7 | 66,6                    | 20,6        |
| 29000                   | 50,1 | 58,0                    | 18,0        |
| 27500                   | 53,8 | 51,1                    | 16,7        |
| 27800                   | 58,2 | 47,8                    | 15,5        |
| 23600                   | 63,7 | 37,2                    | 14,1        |

B3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 7650                    | 16,5 | 46,5                    | 54,6        |
| 8570                    | 18,5 | 46,5                    | 48,7        |
| 9680                    | 20,9 | 46,5                    | 43,2        |
| 11000                   | 25,0 | 44,2                    | 36,1        |
| 11000                   | 27,1 | 40,8                    | 33,3        |
| 11000                   | 29,4 | 37,5                    | 30,6        |
| 11000                   | 35,4 | 31,1                    | 25,4        |
| 11000                   | 40,3 | 27,4                    | 22,4        |
| 11000                   | 43,5 | 25,4                    | 20,7        |
| 8640                    | 47,1 | 18,4                    | 19,1        |
| 10400                   | 56,7 | 18,4                    | 15,9        |
| 11000                   | 64,4 | 17,1                    | 14,0        |
| 11000                   | 69,5 | 15,9                    | 12,9        |
| 11000                   | 75,3 | 14,6                    | 12,0        |
| 8390                    | 79,5 | 10,6                    | 11,3        |
| 9780                    | 86,6 | 11,3                    | 10,4        |

B3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 15600                   | 15,3 | 102                     | 59,0        |
| 17900                   | 17,7 | 101                     | 50,9        |
| 18900                   | 19,1 | 98,9                    | 47,1        |
| 19900                   | 20,7 | 96,3                    | 43,6        |
| 21000                   | 22,4 | 93,9                    | 40,2        |
| 22200                   | 24,4 | 91,1                    | 36,9        |
| 23400                   | 26,6 | 88,2                    | 33,8        |
| 24000                   | 30,9 | 78,0                    | 29,2        |
| 21400                   | 35,7 | 60,0                    | 25,2        |
| 15600                   | 39,2 | 39,9                    | 22,9        |
| 17000                   | 42,8 | 39,8                    | 21,0        |
| 19700                   | 49,6 | 39,8                    | 18,1        |
| 22600                   | 57,4 | 39,4                    | 15,7        |
| 20900                   | 62,9 | 33,3                    | 14,3        |
| 19900                   | 68,1 | 29,2                    | 13,2        |
| 18800                   | 74,0 | 25,4                    | 12,2        |

B3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24500                   | 15,3 | 161                     | 59,0        |
| 28500                   | 17,7 | 161                     | 50,8        |
| 33300                   | 20,7 | 161                     | 43,4        |
| 36000                   | 22,5 | 160                     | 40,0        |
| 36000                   | 24,5 | 147                     | 36,7        |
| 36000                   | 26,4 | 137                     | 34,1        |
| 36000                   | 28,5 | 127                     | 31,5        |
| 36000                   | 33,6 | 107                     | 26,8        |
| 36000                   | 38,6 | 93,6                    | 23,3        |
| 29200                   | 42,5 | 68,8                    | 21,2        |
| 31600                   | 45,9 | 68,9                    | 19,6        |
| 36000                   | 54,0 | 66,8                    | 16,7        |
| 36000                   | 62,0 | 58,2                    | 14,5        |
| 34000                   | 66,6 | 51,1                    | 13,5        |
| 34400                   | 72,0 | 47,8                    | 12,5        |
| 29200                   | 78,8 | 37,2                    | 11,4        |

8.4 BZ GEAR REDUCER - 900 rpm

B3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 31000                   | 12,1 | 256                     | 74,1                    |
| 35800                   | 14,0 | 256                     | 64,2                    |
| 41600                   | 16,3 | 256                     | 55,2                    |
| 47600                   | 18,7 | 256                     | 48,3                    |
| 51800                   | 20,3 | 256                     | 44,4                    |
| 55000                   | 22,1 | 249                     | 40,7                    |
| 54000                   | 25,5 | 213                     | 35,3                    |
| 54300                   | 27,7 | 197                     | 32,5                    |
| 48400                   | 29,7 | 163                     | 30,3                    |
| 48900                   | 32,1 | 153                     | 28,1                    |
| 41400                   | 38,8 | 107                     | 23,2                    |
| 44900                   | 42,1 | 107                     | 21,4                    |
| 48300                   | 45,3 | 107                     | 19,9                    |
| 49400                   | 48,8 | 101                     | 18,4                    |
| 43400                   | 55,3 | 78,6                    | 16,3                    |
| 42800                   | 59,7 | 71,8                    | 15,1                    |

B3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 56500                   | 12,7 | 446                     | 70,9                    |
| 64700                   | 14,5 | 446                     | 62,0                    |
| 74400                   | 16,7 | 447                     | 53,9                    |
| 80100                   | 18,0 | 447                     | 50,1                    |
| 86400                   | 19,4 | 447                     | 46,4                    |
| 90000                   | 21,0 | 430                     | 42,9                    |
| 90000                   | 23,5 | 384                     | 38,3                    |
| 90000                   | 25,3 | 356                     | 35,5                    |
| 90000                   | 29,2 | 309                     | 30,8                    |
| 66900                   | 33,7 | 199                     | 26,7                    |
| 75100                   | 37,8 | 199                     | 23,8                    |
| 80900                   | 40,8 | 199                     | 22,1                    |
| 90000                   | 47,0 | 192                     | 19,1                    |
| 80400                   | 53,0 | 152                     | 17,0                    |
| 81200                   | 57,4 | 142                     | 15,7                    |
| 79500                   | 62,3 | 128                     | 14,4                    |

B3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39800                   | 15,6 | 256                     | 57,7                    |
| 46000                   | 18,0 | 256                     | 49,9                    |
| 53400                   | 20,9 | 256                     | 43,0                    |
| 61200                   | 24,0 | 256                     | 37,5                    |
| 66500                   | 26,1 | 256                     | 34,5                    |
| 70000                   | 28,5 | 247                     | 31,6                    |
| 69500                   | 32,8 | 213                     | 27,5                    |
| 69900                   | 35,6 | 197                     | 25,3                    |
| 62200                   | 38,2 | 163                     | 23,5                    |
| 62900                   | 41,2 | 153                     | 21,8                    |
| 53200                   | 49,8 | 107                     | 18,1                    |
| 57800                   | 54,1 | 107                     | 16,6                    |
| 62100                   | 58,2 | 107                     | 15,5                    |
| 63500                   | 62,8 | 101                     | 14,3                    |
| 55700                   | 71,1 | 78,6                    | 12,7                    |
| 55000                   | 76,8 | 71,8                    | 11,7                    |

B3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 68400                   | 15,4 | 446                     | 58,6                    |
| 78200                   | 17,6 | 447                     | 51,3                    |
| 90000                   | 20,2 | 447                     | 44,5                    |
| 96900                   | 21,8 | 447                     | 41,4                    |
| 104000                  | 23,5 | 446                     | 38,4                    |
| 110000                  | 25,4 | 435                     | 35,5                    |
| 110000                  | 28,5 | 388                     | 31,6                    |
| 110000                  | 30,7 | 360                     | 29,4                    |
| 110000                  | 35,3 | 312                     | 25,5                    |
| 81000                   | 40,8 | 199                     | 22,1                    |
| 90800                   | 45,8 | 199                     | 19,7                    |
| 97800                   | 49,3 | 199                     | 18,3                    |
| 110000                  | 56,9 | 194                     | 15,8                    |
| 97200                   | 64,1 | 152                     | 14,0                    |
| 98200                   | 69,4 | 142                     | 13,0                    |
| 96100                   | 75,4 | 128                     | 11,9                    |

## 8.4 BZ GEAR REDUCER - 900 rpm

## B4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 60,6 | 32,1                    | 14,9                    |
| 19000                   | 70,3 | 27,7                    | 12,8                    |
| 19000                   | 76,0 | 25,6                    | 11,8                    |
| 19000                   | 91,2 | 21,3                    | 9,87                    |
| 19000                   | 106  | 18,4                    | 8,49                    |
| 19000                   | 115  | 16,9                    | 7,84                    |
| 15200                   | 128  | 12,2                    | 7,04                    |
| 18300                   | 153  | 12,2                    | 5,87                    |
| 19000                   | 178  | 10,9                    | 5,05                    |
| 19000                   | 193  | 10,1                    | 4,66                    |
| 18500                   | 238  | 7,93                    | 3,78                    |
| 16400                   | 275  | 6,10                    | 3,27                    |
| 15700                   | 323  | 4,98                    | 2,79                    |

## B4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 79,0 | 37,6                    | 11,4                    |
| 29000                   | 85,7 | 34,7                    | 10,5                    |
| 29000                   | 93,1 | 31,9                    | 9,66                    |
| 29000                   | 112  | 26,5                    | 8,02                    |
| 29000                   | 128  | 23,3                    | 7,06                    |
| 29000                   | 138  | 21,6                    | 6,54                    |
| 26800                   | 149  | 18,4                    | 6,04                    |
| 29000                   | 180  | 16,5                    | 5,01                    |
| 29000                   | 204  | 14,6                    | 4,41                    |
| 29000                   | 220  | 13,5                    | 4,09                    |
| 29000                   | 256  | 11,6                    | 3,52                    |
| 29000                   | 292  | 10,2                    | 3,08                    |
| 26800                   | 348  | 7,88                    | 2,58                    |

## B4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 63,0 | 89,4                    | 14,3                    |
| 55000                   | 68,4 | 82,4                    | 13,2                    |
| 55000                   | 74,4 | 75,8                    | 12,1                    |
| 55000                   | 81,2 | 69,4                    | 11,1                    |
| 55000                   | 94,1 | 59,9                    | 9,57                    |
| 55000                   | 109  | 51,8                    | 8,27                    |
| 46600                   | 120  | 39,9                    | 7,52                    |
| 50800                   | 131  | 39,9                    | 6,89                    |
| 55000                   | 151  | 37,2                    | 5,95                    |
| 52400                   | 188  | 28,5                    | 4,78                    |
| 53000                   | 223  | 24,4                    | 4,04                    |
| 46600                   | 273  | 17,5                    | 3,30                    |
| 47300                   | 320  | 15,1                    | 2,81                    |

## B4Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 76,8 | 32,0                    | 11,7                    |
| 24000                   | 89,1 | 27,6                    | 10,1                    |
| 24000                   | 96,4 | 25,5                    | 9,34                    |
| 24000                   | 116  | 21,3                    | 7,78                    |
| 24000                   | 134  | 18,3                    | 6,70                    |
| 24000                   | 146  | 16,9                    | 6,18                    |
| 19300                   | 162  | 12,2                    | 5,55                    |
| 23200                   | 195  | 12,2                    | 4,63                    |
| 24000                   | 226  | 10,9                    | 3,98                    |
| 24000                   | 245  | 10,0                    | 3,67                    |
| 23400                   | 302  | 7,93                    | 2,98                    |
| 20800                   | 349  | 6,10                    | 2,58                    |
| 19800                   | 410  | 4,96                    | 2,20                    |

## B4Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 97,8 | 37,7                    | 9,20                    |
| 36000                   | 106  | 34,8                    | 8,49                    |
| 36000                   | 115  | 32,0                    | 7,81                    |
| 36000                   | 139  | 26,6                    | 6,48                    |
| 36000                   | 158  | 23,4                    | 5,70                    |
| 36000                   | 170  | 21,7                    | 5,29                    |
| 33200                   | 184  | 18,4                    | 4,88                    |
| 36000                   | 222  | 16,6                    | 4,05                    |
| 36000                   | 252  | 14,6                    | 3,57                    |
| 36000                   | 272  | 13,5                    | 3,30                    |
| 36000                   | 317  | 11,6                    | 2,84                    |
| 36000                   | 362  | 10,2                    | 2,49                    |
| 33200                   | 431  | 7,88                    | 2,09                    |

## B4Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70000                   | 81,0 | 88,5                    | 11,1                    |
| 70000                   | 87,9 | 81,6                    | 10,2                    |
| 70000                   | 95,6 | 75,0                    | 9,41                    |
| 70000                   | 104  | 68,7                    | 8,62                    |
| 70000                   | 121  | 59,3                    | 7,44                    |
| 70000                   | 140  | 51,2                    | 6,43                    |
| 59900                   | 154  | 39,9                    | 5,85                    |
| 65400                   | 168  | 39,9                    | 5,36                    |
| 70000                   | 195  | 36,8                    | 4,62                    |
| 67300                   | 242  | 28,5                    | 3,72                    |
| 68200                   | 286  | 24,4                    | 3,15                    |
| 59900                   | 351  | 17,5                    | 2,57                    |
| 60800                   | 412  | 15,1                    | 2,19                    |

## 8.4 BZ GEAR REDUCER - 900 rpm

B4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 70,5 | 131                     | 12,8                    |
| 90000                   | 76,7 | 120                     | 11,7                    |
| 90000                   | 82,8 | 111                     | 10,9                    |
| 90000                   | 89,4 | 103                     | 10,1                    |
| 90000                   | 105  | 87,7                    | 8,56                    |
| 90000                   | 121  | 76,3                    | 7,45                    |
| 83100                   | 123  | 69,0                    | 7,30                    |
| 89700                   | 133  | 69,0                    | 6,76                    |
| 90000                   | 144  | 64,1                    | 6,26                    |
| 90000                   | 169  | 54,5                    | 5,32                    |
| 90000                   | 194  | 47,5                    | 4,63                    |
| 86300                   | 235  | 37,6                    | 3,83                    |
| 87300                   | 275  | 32,5                    | 3,27                    |
| 88400                   | 327  | 27,7                    | 2,75                    |

B4Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 85,2 | 132                     | 10,6                    |
| 110000                  | 92,8 | 121                     | 9,70                    |
| 110000                  | 100  | 113                     | 8,99                    |
| 110000                  | 108  | 104                     | 8,33                    |
| 110000                  | 127  | 88,6                    | 7,07                    |
| 110000                  | 146  | 77,1                    | 6,16                    |
| 101000                  | 149  | 69,0                    | 6,03                    |
| 108000                  | 161  | 69,0                    | 5,59                    |
| 110000                  | 174  | 64,8                    | 5,18                    |
| 110000                  | 205  | 55,1                    | 4,40                    |
| 110000                  | 235  | 48,0                    | 3,83                    |
| 104000                  | 285  | 37,6                    | 3,16                    |
| 106000                  | 333  | 32,5                    | 2,70                    |
| 107000                  | 396  | 27,7                    | 2,27                    |

PBZ

B3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 6200                    | 13,3 | 36,4                    | 52,7        |
| 6940                    | 14,9 | 36,4                    | 47,1        |
| 7840                    | 16,8 | 36,4                    | 41,7        |
| 9000                    | 20,1 | 34,9                    | 34,8        |
| 9000                    | 21,8 | 32,2                    | 32,1        |
| 9000                    | 23,7 | 29,6                    | 29,6        |
| 9000                    | 28,5 | 24,6                    | 24,5        |
| 9000                    | 32,4 | 21,6                    | 21,6        |
| 9000                    | 35,0 | 20,1                    | 20,0        |
| 6990                    | 37,9 | 14,4                    | 18,5        |
| 8420                    | 45,6 | 14,4                    | 15,3        |
| 9000                    | 51,9 | 13,5                    | 13,5        |
| 9000                    | 56,0 | 12,5                    | 12,5        |
| 9000                    | 60,6 | 11,6                    | 11,5        |
| 6790                    | 64,0 | 8,27                    | 10,9        |
| 7960                    | 69,8 | 8,90                    | 10,0        |

B3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12400                   | 12,0 | 80,1                    | 58,2        |
| 14400                   | 14,0 | 80,2                    | 50,2        |
| 15500                   | 15,1 | 80,3                    | 46,5        |
| 16600                   | 16,3 | 79,2                    | 42,9        |
| 17500                   | 17,7 | 77,0                    | 39,6        |
| 18500                   | 19,2 | 74,8                    | 36,4        |
| 19000                   | 21,0 | 70,6                    | 33,3        |
| 19000                   | 24,3 | 60,9                    | 28,8        |
| 17600                   | 28,2 | 48,6                    | 24,9        |
| 12400                   | 30,9 | 31,3                    | 22,6        |
| 13500                   | 33,8 | 31,2                    | 20,7        |
| 15700                   | 39,1 | 31,2                    | 17,9        |
| 17900                   | 45,3 | 30,8                    | 15,5        |
| 16600                   | 49,6 | 26,1                    | 14,1        |
| 15800                   | 53,7 | 22,9                    | 13,0        |
| 14900                   | 58,4 | 19,9                    | 12,0        |

B3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20000                   | 12,3 | 126                     | 56,7        |
| 23200                   | 14,3 | 126                     | 48,9        |
| 27100                   | 16,8 | 126                     | 41,8        |
| 29000                   | 18,2 | 124                     | 38,5        |
| 29000                   | 19,8 | 114                     | 35,4        |
| 29000                   | 21,4 | 106                     | 32,8        |
| 29000                   | 23,1 | 98,1                    | 30,4        |
| 29000                   | 27,1 | 83,3                    | 25,8        |
| 29000                   | 31,2 | 72,6                    | 22,5        |
| 23800                   | 34,4 | 53,9                    | 20,4        |
| 25700                   | 37,1 | 53,9                    | 18,9        |
| 29000                   | 43,7 | 51,8                    | 16,0        |
| 29000                   | 50,1 | 45,1                    | 14,0        |
| 27600                   | 53,8 | 39,9                    | 13,0        |
| 27900                   | 58,2 | 37,4                    | 12,0        |
| 23800                   | 63,7 | 29,1                    | 11,0        |

B3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 7700                    | 16,5 | 36,4                    | 42,4        |
| 8620                    | 18,5 | 36,4                    | 37,9        |
| 9740                    | 20,9 | 36,4                    | 33,6        |
| 11000                   | 25,0 | 34,4                    | 28,1        |
| 11000                   | 27,1 | 31,7                    | 25,9        |
| 11000                   | 29,4 | 29,2                    | 23,8        |
| 11000                   | 35,4 | 24,2                    | 19,8        |
| 11000                   | 40,3 | 21,3                    | 17,4        |
| 11000                   | 43,5 | 19,7                    | 16,1        |
| 8680                    | 47,1 | 14,4                    | 14,9        |
| 10500                   | 56,7 | 14,4                    | 12,4        |
| 11000                   | 64,4 | 13,3                    | 10,9        |
| 11000                   | 69,5 | 12,3                    | 10,1        |
| 11000                   | 75,3 | 11,4                    | 9,30        |
| 8430                    | 79,5 | 8,27                    | 8,80        |
| 9880                    | 86,6 | 8,89                    | 8,08        |

B3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 15700                   | 15,3 | 80,2                    | 45,9        |
| 18200                   | 17,7 | 80,0                    | 39,6        |
| 19600                   | 19,1 | 80,0                    | 36,6        |
| 21000                   | 20,7 | 79,1                    | 33,9        |
| 22200                   | 22,4 | 77,1                    | 31,2        |
| 23400                   | 24,4 | 74,8                    | 28,7        |
| 24000                   | 26,6 | 70,3                    | 26,3        |
| 24000                   | 30,9 | 60,7                    | 22,7        |
| 22300                   | 35,7 | 48,6                    | 19,6        |
| 15700                   | 39,2 | 31,2                    | 17,8        |
| 17100                   | 42,8 | 31,1                    | 16,4        |
| 19900                   | 49,6 | 31,2                    | 14,1        |
| 22700                   | 57,4 | 30,8                    | 12,2        |
| 21100                   | 62,9 | 26,1                    | 11,1        |
| 20000                   | 68,1 | 22,9                    | 10,3        |
| 18900                   | 74,0 | 19,9                    | 9,46        |

B3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24700                   | 15,3 | 126                     | 45,9        |
| 28700                   | 17,7 | 126                     | 39,5        |
| 33500                   | 20,7 | 126                     | 33,8        |
| 36000                   | 22,5 | 125                     | 31,1        |
| 36000                   | 24,5 | 115                     | 28,6        |
| 36000                   | 26,4 | 106                     | 26,5        |
| 36000                   | 28,5 | 98,4                    | 24,5        |
| 36000                   | 33,6 | 83,6                    | 20,8        |
| 36000                   | 38,6 | 72,8                    | 18,2        |
| 29400                   | 42,5 | 53,9                    | 16,5        |
| 31700                   | 45,9 | 53,9                    | 15,3        |
| 36000                   | 54,0 | 52,0                    | 13,0        |
| 36000                   | 62,0 | 45,3                    | 11,3        |
| 34200                   | 66,6 | 40,0                    | 10,5        |
| 34500                   | 72,0 | 37,3                    | 9,72        |
| 29500                   | 78,8 | 29,2                    | 8,89        |

## 8.5 BZ GEAR REDUCER - 700 rpm

## B3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 31200                   | 12,1 | 200                     | 57,7                    |
| 36000                   | 14,0 | 200                     | 49,9                    |
| 41900                   | 16,3 | 200                     | 43,0                    |
| 47900                   | 18,7 | 200                     | 37,5                    |
| 52100                   | 20,3 | 200                     | 34,5                    |
| 55000                   | 22,1 | 194                     | 31,6                    |
| 54300                   | 25,5 | 166                     | 27,5                    |
| 54700                   | 27,7 | 154                     | 25,3                    |
| 48600                   | 29,7 | 127                     | 23,5                    |
| 49100                   | 32,1 | 119                     | 21,8                    |
| 41600                   | 38,8 | 83,7                    | 18,1                    |
| 45200                   | 42,1 | 83,7                    | 16,6                    |
| 48600                   | 45,3 | 83,7                    | 15,5                    |
| 49600                   | 48,8 | 79,2                    | 14,3                    |
| 43500                   | 55,3 | 61,4                    | 12,7                    |
| 43100                   | 59,7 | 56,2                    | 11,7                    |

## B3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 57100                   | 12,7 | 351                     | 55,2                    |
| 65300                   | 14,5 | 351                     | 48,2                    |
| 75200                   | 16,7 | 351                     | 41,9                    |
| 80900                   | 18,0 | 351                     | 38,9                    |
| 87300                   | 19,4 | 351                     | 36,1                    |
| 90000                   | 21,0 | 335                     | 33,4                    |
| 90000                   | 23,5 | 298                     | 29,8                    |
| 90000                   | 25,3 | 277                     | 27,6                    |
| 90000                   | 29,2 | 240                     | 24,0                    |
| 67300                   | 33,7 | 156                     | 20,7                    |
| 75500                   | 37,8 | 156                     | 18,5                    |
| 81300                   | 40,8 | 156                     | 17,2                    |
| 90000                   | 47,0 | 149                     | 14,9                    |
| 80700                   | 53,0 | 119                     | 13,2                    |
| 81500                   | 57,4 | 111                     | 12,2                    |
| 80000                   | 62,3 | 100                     | 11,2                    |

## B3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 40100                   | 15,6 | 200                     | 44,8                    |
| 46300                   | 18,0 | 200                     | 38,8                    |
| 53800                   | 20,9 | 200                     | 33,4                    |
| 61600                   | 24,0 | 200                     | 29,2                    |
| 67000                   | 26,1 | 200                     | 26,8                    |
| 70000                   | 28,5 | 192                     | 24,6                    |
| 69800                   | 32,8 | 166                     | 21,4                    |
| 70000                   | 35,6 | 153                     | 19,7                    |
| 62500                   | 38,2 | 127                     | 18,3                    |
| 63200                   | 41,2 | 119                     | 17,0                    |
| 53500                   | 49,8 | 83,7                    | 14,0                    |
| 58100                   | 54,1 | 83,7                    | 12,9                    |
| 62500                   | 58,2 | 83,7                    | 12,0                    |
| 63800                   | 62,8 | 79,2                    | 11,2                    |
| 56000                   | 71,1 | 61,4                    | 9,85                    |
| 55400                   | 76,8 | 56,3                    | 9,12                    |

## B3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 69100                   | 15,4 | 351                     | 45,6                    |
| 79000                   | 17,6 | 351                     | 39,9                    |
| 91000                   | 20,2 | 351                     | 34,6                    |
| 97900                   | 21,8 | 351                     | 32,2                    |
| 106000                  | 23,5 | 351                     | 29,8                    |
| 110000                  | 25,4 | 338                     | 27,6                    |
| 110000                  | 28,5 | 301                     | 24,6                    |
| 110000                  | 30,7 | 280                     | 22,8                    |
| 110000                  | 35,3 | 243                     | 19,8                    |
| 81400                   | 40,8 | 156                     | 17,2                    |
| 91300                   | 45,8 | 156                     | 15,3                    |
| 98400                   | 49,3 | 156                     | 14,2                    |
| 110000                  | 56,9 | 151                     | 12,3                    |
| 97700                   | 64,1 | 119                     | 10,9                    |
| 98600                   | 69,4 | 111                     | 10,1                    |
| 96800                   | 75,4 | 100                     | 9,29                    |

PBZ

B4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 60,6 | 25,0                    | 11,6        |
| 19000                   | 70,3 | 21,5                    | 9,96        |
| 19000                   | 76,0 | 19,9                    | 9,21        |
| 19000                   | 91,2 | 16,6                    | 7,67        |
| 19000                   | 106  | 14,3                    | 6,60        |
| 19000                   | 115  | 13,2                    | 6,09        |
| 15400                   | 128  | 9,57                    | 5,48        |
| 18400                   | 153  | 9,55                    | 4,56        |
| 19000                   | 178  | 8,49                    | 3,93        |
| 19000                   | 193  | 7,84                    | 3,62        |
| 18600                   | 238  | 6,22                    | 2,94        |
| 16900                   | 275  | 4,89                    | 2,54        |
| 15700                   | 323  | 3,87                    | 2,17        |

B4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 79,0 | 29,2                    | 8,86        |
| 29000                   | 85,7 | 27,0                    | 8,17        |
| 29000                   | 93,1 | 24,8                    | 7,52        |
| 29000                   | 112  | 20,6                    | 6,24        |
| 29000                   | 128  | 18,1                    | 5,49        |
| 29000                   | 138  | 16,8                    | 5,09        |
| 27000                   | 149  | 14,4                    | 4,70        |
| 29000                   | 180  | 12,9                    | 3,90        |
| 29000                   | 204  | 11,3                    | 3,43        |
| 29000                   | 220  | 10,5                    | 3,18        |
| 29000                   | 256  | 9,03                    | 2,73        |
| 29000                   | 292  | 7,90                    | 2,39        |
| 27100                   | 348  | 6,18                    | 2,01        |

B4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55000                   | 63,0 | 69,5                    | 11,1        |
| 55000                   | 68,4 | 64,1                    | 10,2        |
| 55000                   | 74,4 | 58,9                    | 9,41        |
| 55000                   | 81,2 | 54,0                    | 8,62        |
| 55000                   | 94,1 | 46,6                    | 7,44        |
| 55000                   | 109  | 40,3                    | 6,43        |
| 46900                   | 120  | 31,2                    | 5,85        |
| 51200                   | 131  | 31,2                    | 5,36        |
| 55000                   | 151  | 29,0                    | 4,63        |
| 52600                   | 188  | 22,2                    | 3,72        |
| 53200                   | 223  | 19,0                    | 3,15        |
| 46800                   | 273  | 13,7                    | 2,57        |
| 47500                   | 320  | 11,8                    | 2,19        |

B4Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24000                   | 76,8 | 24,9                    | 9,11        |
| 24000                   | 89,1 | 21,5                    | 7,85        |
| 24000                   | 96,4 | 19,8                    | 7,26        |
| 24000                   | 116  | 16,5                    | 6,05        |
| 24000                   | 134  | 14,2                    | 5,21        |
| 24000                   | 146  | 13,1                    | 4,81        |
| 19500                   | 162  | 9,56                    | 4,32        |
| 23400                   | 195  | 9,56                    | 3,60        |
| 24000                   | 226  | 8,46                    | 3,10        |
| 24000                   | 245  | 7,81                    | 2,86        |
| 23600                   | 302  | 6,22                    | 2,32        |
| 21400                   | 349  | 4,88                    | 2,01        |
| 19900                   | 410  | 3,87                    | 1,71        |

B4Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36000                   | 97,8 | 29,3                    | 7,16        |
| 36000                   | 106  | 27,1                    | 6,60        |
| 36000                   | 115  | 24,9                    | 6,07        |
| 36000                   | 139  | 20,7                    | 5,04        |
| 36000                   | 158  | 18,2                    | 4,44        |
| 36000                   | 170  | 16,8                    | 4,11        |
| 33400                   | 184  | 14,4                    | 3,80        |
| 36000                   | 222  | 12,9                    | 3,15        |
| 36000                   | 252  | 11,4                    | 2,77        |
| 36000                   | 272  | 10,5                    | 2,57        |
| 36000                   | 317  | 9,06                    | 2,21        |
| 36000                   | 362  | 7,93                    | 1,93        |
| 33500                   | 431  | 6,19                    | 1,62        |

B4Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 70000                   | 81,0 | 68,8                    | 8,64        |
| 70000                   | 87,9 | 63,4                    | 7,96        |
| 70000                   | 95,6 | 58,3                    | 7,32        |
| 70000                   | 104  | 53,4                    | 6,71        |
| 70000                   | 121  | 46,1                    | 5,79        |
| 70000                   | 140  | 39,9                    | 5,00        |
| 60300                   | 154  | 31,2                    | 4,55        |
| 65800                   | 168  | 31,2                    | 4,17        |
| 70000                   | 195  | 28,7                    | 3,60        |
| 67600                   | 242  | 22,3                    | 2,89        |
| 68400                   | 286  | 19,0                    | 2,45        |
| 60100                   | 351  | 13,7                    | 2,00        |
| 61000                   | 412  | 11,8                    | 1,70        |

## 8.5 BZ GEAR REDUCER - 700 rpm

B4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90000                   | 70,5 | 102                     | 9,93                    |
| 90000                   | 76,7 | 93,5                    | 9,13                    |
| 90000                   | 82,8 | 86,6                    | 8,46                    |
| 90000                   | 89,4 | 80,2                    | 7,83                    |
| 90000                   | 105  | 68,2                    | 6,66                    |
| 90000                   | 121  | 59,4                    | 5,80                    |
| 83500                   | 123  | 53,9                    | 5,67                    |
| 90000                   | 133  | 53,9                    | 5,26                    |
| 90000                   | 144  | 49,9                    | 4,87                    |
| 90000                   | 169  | 42,4                    | 4,14                    |
| 90000                   | 194  | 36,9                    | 3,60                    |
| 86700                   | 235  | 29,3                    | 2,98                    |
| 87600                   | 275  | 25,4                    | 2,54                    |
| 88700                   | 327  | 21,6                    | 2,14                    |

B4Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 110000                  | 85,2 | 103                     | 8,21                    |
| 110000                  | 92,8 | 94,5                    | 7,55                    |
| 110000                  | 100  | 87,5                    | 6,99                    |
| 110000                  | 108  | 81,1                    | 6,48                    |
| 110000                  | 127  | 68,9                    | 5,50                    |
| 110000                  | 146  | 60,0                    | 4,79                    |
| 101000                  | 149  | 53,9                    | 4,69                    |
| 109000                  | 161  | 53,9                    | 4,35                    |
| 110000                  | 174  | 50,4                    | 4,03                    |
| 110000                  | 205  | 42,8                    | 3,42                    |
| 110000                  | 235  | 37,3                    | 2,98                    |
| 105000                  | 285  | 29,4                    | 2,46                    |
| 106000                  | 333  | 25,3                    | 2,10                    |
| 107000                  | 396  | 21,6                    | 1,77                    |

PBZ

B3Z 179

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 6290                    | 13,3 | 26,4                    | 37,7        |
| 7040                    | 14,9 | 26,4                    | 33,6        |
| 7950                    | 16,8 | 26,4                    | 29,8        |
| 9000                    | 20,1 | 25,0                    | 24,9        |
| 9000                    | 21,8 | 23,0                    | 23,0        |
| 9000                    | 23,7 | 21,2                    | 21,1        |
| 9000                    | 28,5 | 17,6                    | 17,5        |
| 9000                    | 32,4 | 15,5                    | 15,4        |
| 9000                    | 35,0 | 14,3                    | 14,3        |
| 7100                    | 37,9 | 10,4                    | 13,2        |
| 8550                    | 45,6 | 10,4                    | 11,0        |
| 9000                    | 51,9 | 9,66                    | 9,64        |
| 9000                    | 56,0 | 8,96                    | 8,93        |
| 9000                    | 60,6 | 8,27                    | 8,25        |
| 6880                    | 64,0 | 5,98                    | 7,81        |
| 8180                    | 69,8 | 6,53                    | 7,17        |

B3Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12600                   | 12,0 | 58,1                    | 41,6        |
| 14600                   | 14,0 | 58,1                    | 35,8        |
| 15700                   | 15,1 | 58,1                    | 33,2        |
| 17000                   | 16,3 | 58,1                    | 30,7        |
| 18500                   | 17,7 | 58,1                    | 28,3        |
| 19000                   | 19,2 | 55,0                    | 26,0        |
| 19000                   | 21,0 | 50,4                    | 23,8        |
| 19000                   | 24,3 | 43,5                    | 20,6        |
| 18000                   | 28,2 | 35,5                    | 17,8        |
| 12600                   | 30,9 | 22,6                    | 16,2        |
| 13700                   | 33,8 | 22,6                    | 14,8        |
| 15900                   | 39,1 | 22,6                    | 12,8        |
| 18300                   | 45,3 | 22,5                    | 11,0        |
| 17000                   | 49,6 | 19,1                    | 10,1        |
| 16200                   | 53,7 | 16,7                    | 9,31        |
| 15200                   | 58,4 | 14,5                    | 8,56        |

B3Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20300                   | 12,3 | 91,4                    | 40,5        |
| 23500                   | 14,3 | 91,4                    | 34,9        |
| 27500                   | 16,8 | 91,4                    | 29,9        |
| 29000                   | 18,2 | 88,8                    | 27,5        |
| 29000                   | 19,8 | 81,6                    | 25,3        |
| 29000                   | 21,4 | 75,6                    | 23,4        |
| 29000                   | 23,1 | 70,0                    | 21,7        |
| 29000                   | 27,1 | 59,5                    | 18,4        |
| 29000                   | 31,2 | 51,8                    | 16,0        |
| 24100                   | 34,4 | 39,1                    | 14,6        |
| 26000                   | 37,1 | 39,0                    | 13,5        |
| 29000                   | 43,7 | 37,0                    | 11,5        |
| 29000                   | 50,1 | 32,2                    | 9,97        |
| 28000                   | 53,8 | 28,9                    | 9,29        |
| 28300                   | 58,2 | 27,0                    | 8,59        |
| 24400                   | 63,7 | 21,3                    | 7,85        |

B3Z 199

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 7810                    | 16,5 | 26,4                    | 30,3        |
| 8750                    | 18,5 | 26,4                    | 27,1        |
| 9870                    | 20,9 | 26,4                    | 24,0        |
| 11000                   | 25,0 | 24,6                    | 20,0        |
| 11000                   | 27,1 | 22,6                    | 18,5        |
| 11000                   | 29,4 | 20,8                    | 17,0        |
| 11000                   | 35,4 | 17,3                    | 14,1        |
| 11000                   | 40,3 | 15,2                    | 12,4        |
| 11000                   | 43,5 | 14,1                    | 11,5        |
| 8810                    | 47,1 | 10,4                    | 10,6        |
| 10600                   | 56,7 | 10,4                    | 8,82        |
| 11000                   | 64,4 | 9,51                    | 7,76        |
| 11000                   | 69,5 | 8,81                    | 7,19        |
| 11000                   | 75,3 | 8,14                    | 6,64        |
| 8550                    | 79,5 | 5,99                    | 6,29        |
| 10200                   | 86,6 | 6,53                    | 5,77        |

B3Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 15900                   | 15,3 | 58,0                    | 32,8        |
| 18500                   | 17,7 | 58,1                    | 28,3        |
| 19900                   | 19,1 | 58,0                    | 26,2        |
| 21600                   | 20,7 | 58,1                    | 24,2        |
| 23400                   | 22,4 | 58,2                    | 22,3        |
| 24000                   | 24,4 | 54,8                    | 20,5        |
| 24000                   | 26,6 | 50,2                    | 18,8        |
| 24000                   | 30,9 | 43,3                    | 16,2        |
| 22800                   | 35,7 | 35,5                    | 14,0        |
| 15900                   | 39,2 | 22,6                    | 12,7        |
| 17400                   | 42,8 | 22,6                    | 11,7        |
| 20200                   | 49,6 | 22,6                    | 10,1        |
| 23200                   | 57,4 | 22,5                    | 8,71        |
| 21600                   | 62,9 | 19,1                    | 7,94        |
| 20500                   | 68,1 | 16,7                    | 7,34        |
| 19300                   | 74,0 | 14,5                    | 6,76        |

B3Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 25100                   | 15,3 | 91,6                    | 32,8        |
| 29100                   | 17,7 | 91,5                    | 28,2        |
| 34100                   | 20,7 | 91,5                    | 24,1        |
| 36000                   | 22,5 | 89,1                    | 22,2        |
| 36000                   | 24,5 | 81,9                    | 20,4        |
| 36000                   | 26,4 | 75,9                    | 18,9        |
| 36000                   | 28,5 | 70,3                    | 17,5        |
| 36000                   | 33,6 | 59,7                    | 14,9        |
| 36000                   | 38,6 | 52,0                    | 13,0        |
| 29800                   | 42,5 | 39,0                    | 11,8        |
| 32200                   | 45,9 | 39,1                    | 10,9        |
| 36000                   | 54,0 | 37,1                    | 9,26        |
| 36000                   | 62,0 | 32,3                    | 8,06        |
| 34600                   | 66,6 | 28,9                    | 7,51        |
| 35000                   | 72,0 | 27,0                    | 6,94        |
| 30200                   | 78,8 | 21,4                    | 6,35        |

## 8.6 BZ GEAR REDUCER - 500 rpm

## B3Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 31700                   | 12,1 | 145                     | 41,2                    |
| 36600                   | 14,0 | 145                     | 35,7                    |
| 42600                   | 16,3 | 145                     | 30,7                    |
| 48700                   | 18,7 | 145                     | 26,8                    |
| 53000                   | 20,3 | 146                     | 24,7                    |
| 55000                   | 22,1 | 138                     | 22,6                    |
| 55000                   | 25,5 | 120                     | 19,6                    |
| 55000                   | 27,7 | 111                     | 18,1                    |
| 49200                   | 29,7 | 92,1                    | 16,8                    |
| 49700                   | 32,1 | 86,3                    | 15,6                    |
| 42200                   | 38,8 | 60,6                    | 12,9                    |
| 45900                   | 42,1 | 60,6                    | 11,9                    |
| 49300                   | 45,3 | 60,7                    | 11,0                    |
| 50100                   | 48,8 | 57,2                    | 10,2                    |
| 44000                   | 55,3 | 44,3                    | 9,05                    |
| 44000                   | 59,7 | 41,0                    | 8,37                    |

## B3Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 58500                   | 12,7 | 257                     | 39,4                    |
| 66900                   | 14,5 | 257                     | 34,4                    |
| 77000                   | 16,7 | 257                     | 29,9                    |
| 82900                   | 18,0 | 257                     | 27,8                    |
| 89400                   | 19,4 | 257                     | 25,8                    |
| 90000                   | 21,0 | 239                     | 23,8                    |
| 90000                   | 23,5 | 213                     | 21,3                    |
| 90000                   | 25,3 | 198                     | 19,7                    |
| 90000                   | 29,2 | 172                     | 17,1                    |
| 68300                   | 33,7 | 113                     | 14,8                    |
| 76600                   | 37,8 | 113                     | 13,2                    |
| 82600                   | 40,8 | 113                     | 12,3                    |
| 90000                   | 47,0 | 107                     | 10,6                    |
| 81700                   | 53,0 | 85,8                    | 9,43                    |
| 82400                   | 57,4 | 80,1                    | 8,72                    |
| 81700                   | 62,3 | 73,0                    | 8,03                    |

## B3Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 40800                   | 15,6 | 146                     | 32,0                    |
| 47100                   | 18,0 | 146                     | 27,7                    |
| 54700                   | 20,9 | 145                     | 23,9                    |
| 62600                   | 24,0 | 145                     | 20,9                    |
| 68100                   | 26,1 | 145                     | 19,2                    |
| 70000                   | 28,5 | 137                     | 17,6                    |
| 70000                   | 32,8 | 119                     | 15,3                    |
| 70000                   | 35,6 | 110                     | 14,1                    |
| 63300                   | 38,2 | 92,1                    | 13,1                    |
| 63900                   | 41,2 | 86,3                    | 12,1                    |
| 54300                   | 49,8 | 60,7                    | 10,0                    |
| 59000                   | 54,1 | 60,6                    | 9,24                    |
| 63400                   | 58,2 | 60,6                    | 8,59                    |
| 64500                   | 62,8 | 57,2                    | 7,97                    |
| 56600                   | 71,1 | 44,3                    | 7,04                    |
| 56600                   | 76,8 | 41,0                    | 6,51                    |

## B3Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70700                   | 15,4 | 257                     | 32,6                    |
| 80900                   | 17,6 | 257                     | 28,5                    |
| 93200                   | 20,2 | 257                     | 24,7                    |
| 100000                  | 21,8 | 257                     | 23,0                    |
| 108000                  | 23,5 | 257                     | 21,3                    |
| 110000                  | 25,4 | 241                     | 19,7                    |
| 110000                  | 28,5 | 215                     | 17,6                    |
| 110000                  | 30,7 | 200                     | 16,3                    |
| 110000                  | 35,3 | 173                     | 14,1                    |
| 82700                   | 40,8 | 113                     | 12,3                    |
| 92700                   | 45,8 | 113                     | 10,9                    |
| 99900                   | 49,3 | 113                     | 10,1                    |
| 110000                  | 56,9 | 108                     | 8,80                    |
| 98800                   | 64,1 | 85,8                    | 7,80                    |
| 99700                   | 69,4 | 80,1                    | 7,21                    |
| 98800                   | 75,4 | 73,0                    | 6,63                    |

PBZ

B4Z 219

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19000                   | 60,6 | 17,9                    | 8,25        |
| 19000                   | 70,3 | 15,4                    | 7,11        |
| 19000                   | 76,0 | 14,2                    | 6,58        |
| 19000                   | 91,2 | 11,9                    | 5,48        |
| 19000                   | 106  | 10,2                    | 4,72        |
| 19000                   | 115  | 9,41                    | 4,35        |
| 15600                   | 128  | 6,94                    | 3,91        |
| 18700                   | 153  | 6,94                    | 3,26        |
| 19000                   | 178  | 6,06                    | 2,80        |
| 19000                   | 193  | 5,60                    | 2,59        |
| 18900                   | 238  | 4,51                    | 2,10        |
| 17100                   | 275  | 3,53                    | 1,82        |
| 15900                   | 323  | 2,80                    | 1,55        |

B4Z 269

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 79,0 | 20,9                    | 6,33        |
| 29000                   | 85,7 | 19,3                    | 5,84        |
| 29000                   | 93,1 | 17,7                    | 5,37        |
| 29000                   | 112  | 14,7                    | 4,46        |
| 29000                   | 128  | 12,9                    | 3,92        |
| 29000                   | 138  | 12,0                    | 3,63        |
| 27400                   | 149  | 10,4                    | 3,36        |
| 29000                   | 180  | 9,19                    | 2,79        |
| 29000                   | 204  | 8,09                    | 2,45        |
| 29000                   | 220  | 7,50                    | 2,27        |
| 29000                   | 256  | 6,45                    | 1,95        |
| 29000                   | 292  | 5,64                    | 1,71        |
| 28100                   | 348  | 4,58                    | 1,43        |

B4Z 319

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55000                   | 63,0 | 49,7                    | 7,93        |
| 55000                   | 68,4 | 45,8                    | 7,31        |
| 55000                   | 74,4 | 42,1                    | 6,72        |
| 55000                   | 81,2 | 38,6                    | 6,16        |
| 55000                   | 94,1 | 33,3                    | 5,31        |
| 55000                   | 109  | 28,8                    | 4,59        |
| 47600                   | 120  | 22,6                    | 4,18        |
| 51900                   | 131  | 22,6                    | 3,83        |
| 55000                   | 151  | 20,7                    | 3,30        |
| 53100                   | 188  | 16,1                    | 2,66        |
| 53700                   | 223  | 13,7                    | 2,25        |
| 47300                   | 273  | 9,86                    | 1,83        |
| 48000                   | 320  | 8,52                    | 1,56        |

B4Z 249

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 24000                   | 76,8 | 17,8                    | 6,51        |
| 24000                   | 89,1 | 15,3                    | 5,61        |
| 24000                   | 96,4 | 14,2                    | 5,19        |
| 24000                   | 116  | 11,8                    | 4,32        |
| 24000                   | 134  | 10,2                    | 3,72        |
| 24000                   | 146  | 9,38                    | 3,43        |
| 19800                   | 162  | 6,93                    | 3,08        |
| 23700                   | 195  | 6,93                    | 2,57        |
| 24000                   | 226  | 6,04                    | 2,21        |
| 24000                   | 245  | 5,58                    | 2,04        |
| 24000                   | 302  | 4,52                    | 1,66        |
| 21600                   | 349  | 3,53                    | 1,43        |
| 20100                   | 410  | 2,79                    | 1,22        |

B4Z 279

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36000                   | 97,8 | 21,0                    | 5,11        |
| 36000                   | 106  | 19,3                    | 4,72        |
| 36000                   | 115  | 17,8                    | 4,34        |
| 36000                   | 139  | 14,8                    | 3,60        |
| 36000                   | 158  | 13,0                    | 3,17        |
| 36000                   | 170  | 12,0                    | 2,94        |
| 33900                   | 184  | 10,4                    | 2,71        |
| 36000                   | 222  | 9,22                    | 2,25        |
| 36000                   | 252  | 8,12                    | 1,98        |
| 36000                   | 272  | 7,52                    | 1,84        |
| 36000                   | 317  | 6,47                    | 1,58        |
| 36000                   | 362  | 5,66                    | 1,38        |
| 34700                   | 431  | 4,58                    | 1,16        |

B4Z 349

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 70000                   | 81,0 | 49,2                    | 6,17        |
| 70000                   | 87,9 | 45,3                    | 5,69        |
| 70000                   | 95,6 | 41,7                    | 5,23        |
| 70000                   | 104  | 38,2                    | 4,79        |
| 70000                   | 121  | 32,9                    | 4,13        |
| 70000                   | 140  | 28,5                    | 3,57        |
| 61200                   | 154  | 22,6                    | 3,25        |
| 66800                   | 168  | 22,6                    | 2,98        |
| 70000                   | 195  | 20,5                    | 2,57        |
| 68300                   | 242  | 16,1                    | 2,07        |
| 69100                   | 286  | 13,7                    | 1,75        |
| 60800                   | 351  | 9,86                    | 1,43        |
| 61700                   | 412  | 8,52                    | 1,21        |

8.6 BZ GEAR REDUCER - 500 rpm

B4Z 399

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 90000                   | 70,5 | 72,7                    | 7,10        |
| 90000                   | 76,7 | 66,8                    | 6,52        |
| 90000                   | 82,8 | 61,9                    | 6,04        |
| 90000                   | 89,4 | 57,3                    | 5,60        |
| 90000                   | 105  | 48,7                    | 4,75        |
| 90000                   | 121  | 42,4                    | 4,14        |
| 84700                   | 123  | 39,1                    | 4,05        |
| 90000                   | 133  | 38,5                    | 3,76        |
| 90000                   | 144  | 35,6                    | 3,48        |
| 90000                   | 169  | 30,3                    | 2,96        |
| 90000                   | 194  | 26,4                    | 2,57        |
| 87600                   | 235  | 21,2                    | 2,13        |
| 88500                   | 275  | 18,3                    | 1,82        |
| 89600                   | 327  | 15,6                    | 1,53        |

B4Z 409

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 110000                  | 85,2 | 73,4                    | 5,87        |
| 110000                  | 92,8 | 67,5                    | 5,39        |
| 110000                  | 100  | 62,5                    | 4,99        |
| 110000                  | 108  | 57,9                    | 4,63        |
| 110000                  | 127  | 49,2                    | 3,93        |
| 110000                  | 146  | 42,9                    | 3,42        |
| 103000                  | 149  | 39,1                    | 3,35        |
| 110000                  | 161  | 38,9                    | 3,10        |
| 110000                  | 174  | 36,0                    | 2,88        |
| 110000                  | 205  | 30,6                    | 2,44        |
| 110000                  | 235  | 26,6                    | 2,13        |
| 106000                  | 285  | 21,2                    | 1,76        |
| 107000                  | 333  | 18,3                    | 1,50        |
| 108000                  | 396  | 15,6                    | 1,26        |

PBZ





**PBH**

10.1.1 Information

Nominal thermal capacity Pth is the maximum mechanical power that a gear reducer can transmit (under continuous duty) without its internal temperature rising to such a degree as to damage gear reducer components. Thermal capacity may be increased by using seals made from special rubber and synthetic oil, or suitable cooling devices. In the event of short duty cycles followed by periods of rest long enough to allow for gear reducer to cool down appropriately, thermal capacity loses significance and may be disregarded.

The scheme below indicates the nominal thermal power capacity [kW] according to the following conditions:

- Mounting position B3;
- Continuous operation at input speed <= 1500 rpm;
- Environment temperature Tamb=20°C;
- Sea level altitude;
- Air speed around the gear reducer >=1m/s;
- Absence of external radial and/or axial loads;
- Lubricant oil up to 95°C (mineral oil) and 100°C (synthetic oil).

Table NOMINAL THERMAL CAPACITY Pth

| Pth [kW] |                |                |                |                |                |                |
|----------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | PH - BH<br>180 | PH - BH<br>200 | PH - BH<br>225 | PH - BH<br>250 | PH - BH<br>280 | PH - BH<br>355 |
| P1H      | 125            | 152            | 186            | 239            | 294            | 448            |
| P2H      | 96             | 116            | 142            | 184            | 228            | 344            |
| P3H      | 73             | 89             | 109            | 141            | 170            | 272            |
| P4H      | 56             | 68             | 83             | 108            | 130            | 208            |
| B2H      | 81             | 98             | 119            | 155            | 190            | 293            |
| B3H      | 70             | 85             | 103            | 134            | 162            | 259            |
| B4H      | 53             | 65             | 79             | 103            | 124            | 198            |

When a thermal capacity up to Pth is applied to the gear reducer under the reference conditions outlined above, the proper lubrication and operation of the gear reducer are guaranteed.

# 10.1 THERMAL POWER

## 10.1.2 Verification

### Verification of the application

The thermal limit of a gear reducer under real-life application conditions must be verified for each and every application using the following formula:

$P_1 < P_{th} * f_{ta} * f_{tb} * f_{tc} * f_{tn} * f_{ts} * f_{tv} * F_{mp}$ , where:

- $P_1$  = installed power [kW]
- $P_{th}$  = thermal capacity under reference conditions [kW] (see table "Nominal thermal capacity");
- $f_{ta}$  = sea-level elevation correction factor (see table);
- $f_{tb}$  = cooling fan correction factor (see table);
- $f_{ta}$  = ambient and operating temperature correction factor (see table);
- $f_{tn}$  = input speed  $n_1$  correction factor;
- $f_{ts}$  = cooling coil correction factor (see table);
- $f_{tv}$  = airflow speed correction factor around the gear reducer (see table);
- $F_{mp}$  = mounting position correction factor (see table).

Correction factors reflect operating conditions other than the reference conditions and are obtained from the following ISO14179 tables:

**Table  $f_{ta}$**   
Sea-level elevation correction factor

| Altitude [m] | $f_{ta}$ |
|--------------|----------|
| 0            | 1        |
| 750          | 0,95     |
| 1500         | 0,9      |
| 2250         | 0,85     |
| 3000         | 0,81     |

**Table  $f_{tb}$**   
Cooling fan correction factor

|                   | $n_1$ [rpm] | $f_{tb}$ |
|-------------------|-------------|----------|
| P1H<br>P2H<br>P3H | 1500        | 1,7      |
|                   | 1000        | 1,5      |
| B2H<br>B3H        | 1500        | 1,8      |
|                   | 1000        | 1,6      |

**Table  $f_{tc}$**   
Ambient and operating temperature correction factor

|                        | $f_{tc}$ | Duty per hour of operation % |      |      |      |      |
|------------------------|----------|------------------------------|------|------|------|------|
|                        |          | 100                          | 80   | 60   | 40   | 20   |
| Ambient temperature °C | 10       | 1,15                         | 1,25 | 1,35 | 1,5  | 2    |
|                        | 20       | 1                            | 1,05 | 1,15 | 1,35 | 1,75 |
|                        | 30       | 0,9                          | 1    | 1,05 | 1,25 | 1,5  |
|                        | 40       | 0,75                         | 0,8  | 0,9  | 1    | 1,35 |
|                        | 50       | 0,6                          | 0,63 | 0,7  | 0,8  | 1    |

**Table  $f_{tn}$**   
Input speed  $n_1$  correction factor

|                       | $f_{tn}$ | $n_1$ [rpm] |      |      |      |      |
|-----------------------|----------|-------------|------|------|------|------|
|                       |          | 700         | 900  | 1140 | 1400 | 1800 |
| PIH                   | 1,15     | 1,1         | 1,05 | 1    | 0,8  |      |
| P2H - B2H             | 1,1      | 1,07        | 1,05 | 1    | 0,85 |      |
| P3H - P4H - B3H - B4H | 1,07     | 1,05        | 1,05 | 1    | 0,95 |      |

**Table  $f_{ts}$**   
Cooling coil correction factor

|     | $f_{ts}$ |
|-----|----------|
| PBH | 2        |

**Table  $f_{tv}$**   
Airflow speed correction factor around the gear reducer

| Ventilation correction factor                        | $f_{tv}$ |
|------------------------------------------------------|----------|
| Stagnant air (<0,5 m/s)                              | 0,75     |
| Indoor installation with slight ventilation          | 1        |
| Indoor installation with good ventilation (>1,4 m/s) | 1,4      |

**Table  $F_{mp}$**   
Mounting position correction factor

| $F_{mp}$ |     |      |      |      |      |      |      |
|----------|-----|------|------|------|------|------|------|
|          | PIH | P2H  | P3H  | P4H  | B2H  | B3H  | B4H  |
| B3       | 1   | 1    | 1    | 1    | 1    | 1    | 1    |
| B6       | 0,8 | 0,85 | 0,85 | 0,85 | 0,8  | 0,8  | 0,75 |
| B7       | 0,8 | 0,75 | 0,75 | 0,75 | 0,8  | 0,75 | 0,7  |
| B8       | 1   | 1    | 1    | 1    | 1    | 1    | 1    |
| V5       | 0,8 | 0,75 | 0,75 | 0,75 | 0,75 | 0,75 | 0,7  |
| V6       | 0,8 | 0,85 | 0,85 | 0,85 | 0,8  | 0,8  | 0,75 |

If unit is to operate at input speeds higher than 2800 rpm, or at ambient temperatures exceeding 50 °C, please contact MOTOVARIO TECHNICAL SERVICE.

**Cooling unit**

They are auxiliary cooling systems to be used if fan and coil are not enough to carry out the thermal check.

- Oil/Water - Heat exchanger consisting of motor pump, plate exchanger, pressure gauge, thermometer and minimum pressure switch;
- Oil/Air - Heat exchanger consisting of motor pump, motor fan, thermometer, thermostat, minimum pressure switch, and pressure gauge.

The following accessories are available upon request:

- PT100 oil temperature sensor for heat exchanger control;
- Flow meter.

The heat exchanger provides the unit with an additional thermal capacity (Pta) to be added to the standard thermal capacity, as explained by relation:

$$P1 < (Pth * fta * ftc * ftn * ftv) + (Pta * ftUR)$$

where:

**Pta**= additional thermal capacity [kW], for UR O/W or for UR O/A

**ftUR** = correction factor due to a temperature value other than +20°C of water for UR O/W or of air for UR O/A, respectively **P1**= installed power [kW],

**Pth, fta, ftc, ftn, ftv** = as specified in paragraph Thermal Capacity.

**Table Pta - Additional thermal capacity [kW]**

**WATER - OIL**

**UR O/W with water temperature at 20°C**

| Pta (max) |      |      |     |     |     |     |     |
|-----------|------|------|-----|-----|-----|-----|-----|
| URO/W     | P1H  | P2H  | P3H | P4H | B2H | B3H | B4H |
| 4         | 200  | 100  | 67  | 50  | 80  | 57  | 44  |
| 7         | 315  | 175  | 105 | 79  | 126 | 90  | 70  |
| 12        | 540  | 300  | 180 | 135 | 216 | 154 | 120 |
| 18        | 810  | 450  | 270 | 203 | 324 | 231 | 180 |
| 29        | 1305 | 725  | 435 | 326 | 522 | 373 | 290 |
| 40        | 1800 | 1000 | 600 | 450 | 720 | 514 | 400 |
| 50        | 2250 | 1250 | 750 | 563 | 900 | 643 | 500 |

**Correction factors for water temperature values other than the standard ones specified in the catalogue**

|                        | [°C] | ft <sub>URO/W</sub> |
|------------------------|------|---------------------|
| Water Temperature [°C] | 10   | 1.05                |
|                        | 20   | 1                   |
|                        | 25   | 0.93                |
|                        | 30   | 0.8                 |
|                        | 35   | 0.8                 |

**Table Pta - Additional thermal capacity [kW]**

**AIR - OIL**

**UR O/A with air temperature at 20°C**

| Pta (max) |      |      |     |     |     |     |     |
|-----------|------|------|-----|-----|-----|-----|-----|
| URO/A     | P1H  | P2H  | P3H | P4H | B2H | B3H | B4H |
| 4         | 169  | 100  | 56  | 42  | 68  | 48  | 38  |
| 7         | 297  | 175  | 99  | 74  | 119 | 85  | 66  |
| 12        | 508  | 300  | 169 | 127 | 203 | 145 | 113 |
| 18        | 763  | 450  | 254 | 191 | 305 | 218 | 169 |
| 29        | 1229 | 725  | 410 | 307 | 492 | 351 | 273 |
| 40        | 1695 | 1000 | 565 | 424 | 678 | 484 | 377 |
| 50        | 2119 | 1250 | 706 | 530 | 847 | 605 | 471 |

**Correction factors for air temperature values other than the standard ones specified in the catalogue**

|                      | [°C] |      |
|----------------------|------|------|
| Air Temperature [°C] | 20   | 1    |
|                      | 30   | 0.88 |
|                      | 40   | 0.75 |
|                      | 45   | 0.7  |
|                      | 50   | 0.63 |

The value of maximum input speed  $n_1 \text{ max}$  shown in the table reflects continuous duty S1 (operation under steady loading for a period long enough to achieve thermal balance) and the B3 mounting position.

Continuous speeds above 1800 rpm are nevertheless not recommended since they could cause overheating and early deterioration of seals, bearings and lubricant.

Mounting positions other than B3 could make it necessary to use dedicated forced lubrication systems, while the transmission ratio could in some cases originate a further limitation of the permissible maximum input speed  $n_1 \text{ max}$ , contact MOTOVARIO TECHNICAL SERVICE.

For intermittent duty, please contact MOTOVARIO TECHNICAL SERVICE.

Table MAXIMUM PERMISSIBLE INPUT SPEED  $n_1 \text{ max}$

| $n_1 \text{ max}$ [rpm] |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|
| PH - BH                 | P1H  | P2H  | P3H  | P4H  | B2H  | B3H  | B4H  |
| 180                     | 2800 | 2800 | 2800 | 2800 | 2800 | 2800 | 2800 |
| 200                     | 2400 | 2800 | 2800 | 2800 | 2400 | 2800 | 2800 |
| 225                     | 2240 | 2800 | 2800 | 2800 | 2240 | 2800 | 2800 |
| 250                     | 2000 | 2400 | 2800 | 2800 | 2000 | 2400 | 2800 |
| 280                     | 1800 | 2240 | 2800 | 2800 | 1800 | 2000 | 2800 |
| 355                     | 1400 | 1800 | 2400 | 2800 | 1400 | 1800 | 2400 |

## 10.3 LUBRICATION

For the gear reducers of the PBH series, it is always necessary to specify the mounting position.

The amount of oil in the table are merely indicative only and for the proper topping up you will have to refer to the level plug or the dipstick, if any. Any deviations in level can depend on construction tolerances but also by the placement of the unit or by the mounting surface at the customers' premises. For this reason it is appropriate that the customer checks and, if necessary, restores the level when the unit are installed.

Table OIL CAPACITIES IN LITRES ~ [l]

|            | PIH |     |     |     |     |     | P2H |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 180 | 200 | 225 | 250 | 280 | 355 | 180 | 200 | 225 | 250 | 280 | 355 |
| <b>B3</b>  | 12  | 18  | 26  | 39  | 56  | 127 | 11  | 16  | 23  | 35  | 50  | 114 |
| <b>B3R</b> | 12  | 18  | 26  | 39  | 56  | 127 | 11  | 16  | 23  | 35  | 50  | 114 |
| <b>B6</b>  | 15  | 21  | 31  | 47  | 64  | 149 | 22  | 30  | 42  | 64  | 89  | 201 |
| <b>B7</b>  | 21  | 28  | 37  | 56  | 94  | 169 | 19  | 26  | 33  | 51  | 85  | 152 |
| <b>V5</b>  | 15  | 19  | 29  | 47  | 68  | 137 | 14  | 17  | 26  | 43  | 61  | 123 |
| <b>V6</b>  | 15  | 19  | 29  | 47  | 68  | 137 | 14  | 17  | 26  | 43  | 61  | 123 |

|            | P3H |     |     |     |     |     | P4H |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 180 | 200 | 225 | 250 | 280 | 355 | 180 | 200 | 225 | 250 | 280 | 355 |
| <b>B3</b>  | 15  | 21  | 33  | 49  | 60  | 147 | 13  | 19  | 29  | 44  | 54  | 133 |
| <b>B3R</b> | 15  | 21  | 33  | 49  | 60  | 147 | 13  | 19  | 29  | 44  | 54  | 133 |
| <b>B6</b>  | 31  | 42  | 60  | 88  | 126 | 273 | 28  | 38  | 54  | 80  | 113 | 246 |
| <b>B7</b>  | 27  | 33  | 49  | 74  | 99  | 216 | 24  | 30  | 44  | 66  | 89  | 195 |
| <b>V5</b>  | 17  | 21  | 34  | 56  | 73  | 158 | 15  | 19  | 30  | 50  | 65  | 143 |
| <b>V6</b>  | 17  | 21  | 34  | 56  | 73  | 158 | 15  | 19  | 30  | 50  | 65  | 143 |

|            | B2H |     |     |     |     |     | B3H |     |     |     |     |     | B4H |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 180 | 200 | 225 | 250 | 280 | 355 | 180 | 200 | 225 | 250 | 280 | 355 | 180 | 200 | 225 | 250 | 280 | 355 |
| <b>B3</b>  | 13  | 20  | 28  | 42  | 61  | 140 | 12  | 18  | 26  | 39  | 56  | 127 | 16  | 24  | 36  | 54  | 66  | 162 |
| <b>B3R</b> | 13  | 20  | 28  | 42  | 61  | 140 | 12  | 18  | 26  | 39  | 56  | 127 | 16  | 24  | 36  | 54  | 66  | 162 |
| <b>B6</b>  | 16  | 23  | 34  | 51  | 70  | 164 | 25  | 33  | 46  | 71  | 99  | 224 | 34  | 46  | 65  | 97  | 139 | 301 |
| <b>B7</b>  | 23  | 31  | 41  | 62  | 104 | 186 | 21  | 28  | 37  | 56  | 94  | 169 | 30  | 37  | 54  | 81  | 108 | 238 |
| <b>V5</b>  | 17  | 21  | 32  | 52  | 74  | 150 | 15  | 19  | 29  | 47  | 68  | 137 | 19  | 23  | 37  | 61  | 80  | 174 |
| <b>V6</b>  | 17  | 21  | 32  | 52  | 74  | 150 | 15  | 19  | 29  | 47  | 68  | 137 | 19  | 23  | 37  | 61  | 80  | 174 |

### 10.4.1 Information

Permissible radial load [N] values are indicated in the following tables and refer to the load applied at shaft midpoint in the worst conditions, in terms of angle of application and direction of rotation. RADIAL and THRUST LOADING tables for output shafts give the maximum permissible value according to the number of cycles of the output shaft. This value must never be exceeded as it is connected with casing strength. In the event of special conditions that exceed the ratings given in the catalogue, please contact MOTOVARIO TECHNICAL SERVICE and submit the full application data: direction of loading, direction of rotation of shaft, type of duty. For double-ended and hollow shafts, where radial loading is to be applied at both ends, maximum permissible loads must be determined according to specific operating conditions. When this is the case, please contact MOTOVARIO TECHNICAL SERVICE. Shaft radial loading is calculated by the following formula:  $Fr_e = (2000 \cdot M \cdot f_z) / D \leq Fr_1$  or  $Fr_2$  where:

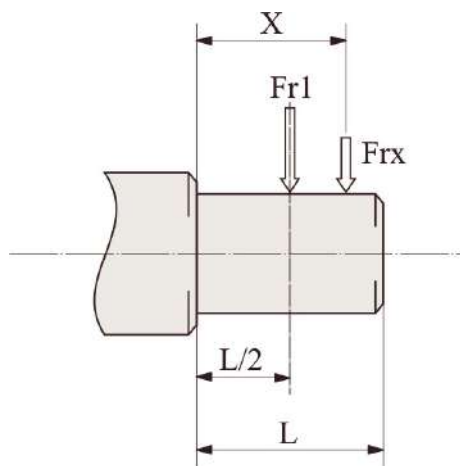
- **Fr<sub>e</sub>** [N] Resultant radial load
- **M** [Nm] Shaft torque
- **D** [mm] Diameter of transmission element mounted on the shaft
- **Fr<sub>1</sub>-Fr<sub>2</sub>** [N] Maximum permissible radial loading (see relevant tables)
- **f<sub>z</sub>** = 1,1 Gear pinion  
1,4 Chain wheel  
1,4 Pulley for timing belt drive  
2,5 V belt pulley

### 10.4.2 Input - Radial load

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load  $Fr_1$  with the formula:

$$Fr_x = (Fr_1 \cdot a) / (b + x)$$

- **a**, **b** = values given in the tables
- **x** = distance from the point of application of the load to the shaft shoulder ( $x_{\max} \leq L$ )



(\*\*)  $Fr_1$  [N] is the permissible radial load value from the gear reducer in continuous service, applied at the centre line of the shaft, considering input speed  $n_1 = 1400$  rpm.

| P1H                        | 180   | 200   | 225   | 250   | 280   | 355   |
|----------------------------|-------|-------|-------|-------|-------|-------|
| <b>a</b>                   | 338   | 386   | 419   | 449   | 503   | 605   |
| <b>b</b>                   | 283   | 316   | 349   | 379   | 418   | 510   |
| <b>Fr<sub>1</sub> (**)</b> | 10000 | 15000 | 15000 | 25000 | 28000 | 35000 |

## 10.4 OVERHUNG/AXIAL LOAD

(\*\*) Fr1 [N] is the permissible radial load value from the gear reducer in continuous service, applied at the centre line of the shaft, considering input speed  $n_1 = 1400$  rpm.

| P2H      | 180  | 200  | 225  | 250   | 280   | 355   |
|----------|------|------|------|-------|-------|-------|
| a        | 338  | 384  | 430  | 460   | 506   | 618   |
| b        | 283  | 329  | 360  | 390   | 436   | 533   |
| Fr1 (**) | 3000 | 4000 | 5500 | 10000 | 12000 | 21000 |

| P3H      | 180  | 200  | 225  | 250  | 280   | 355   |
|----------|------|------|------|------|-------|-------|
| a        | 329  | 363  | 415  | 448  | 490   | 608   |
| b        | 289  | 323  | 360  | 393  | 420   | 538   |
| Fr1 (**) | 3000 | 4000 | 5000 | 9000 | 12000 | 20000 |

| P4H      | 180  | 200  | 225  | 250  | 280  | 355  |
|----------|------|------|------|------|------|------|
| a        | 315  | 355  | 396  | 439  | 480  | 585  |
| b        | 285  | 325  | 356  | 399  | 425  | 530  |
| Fr1 (**) | 2300 | 2500 | 3000 | 2200 | 3200 | 4500 |

| B2H      | 180  | 200  | 225   | 250   | 280   | 355   |
|----------|------|------|-------|-------|-------|-------|
| a        | 249  | 270  | 318   | 326   | 334   | 417   |
| b        | 194  | 215  | 248   | 256   | 264   | 332   |
| Fr1 (**) | 7000 | 8000 | 12000 | 13000 | 15000 | 20000 |

| B3H      | 180  | 200  | 225   | 250   | 280   | 355   |
|----------|------|------|-------|-------|-------|-------|
| a        | 190  | 204  | 249   | 270   | 318   | 334   |
| b        | 150  | 164  | 194   | 215   | 248   | 264   |
| Fr1 (**) | 3500 | 4500 | 11000 | 12000 | 14000 | 18000 |

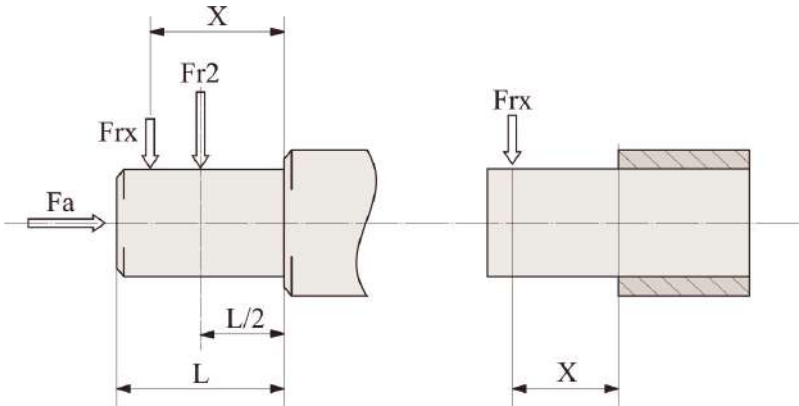
| B4H      | 180  | 200  | 225  | 250  | 280   | 355   |
|----------|------|------|------|------|-------|-------|
| a        | 156  | 154  | 190  | 204  | 249   | 318   |
| b        | 126  | 124  | 150  | 164  | 194   | 248   |
| Fr1 (**) | 3000 | 3800 | 4500 | 6000 | 13000 | 17000 |

10.4.3 Output - Radial/Axial load

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load Fr2 with the formula:

$Fr_x = (Fr_2 \cdot a) / (b + x)$

- **a** , **b** = values given in the tables
- **x** = distance from the point of application of the load to the shaft shoulder ( $x_{max} \leq L$ )



(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

| P1H -P2H<br>B2H | 180   | 200   | 225   | 250   | 280    | 355    |
|-----------------|-------|-------|-------|-------|--------|--------|
| a               | 352   | 391   | 430   | 467   | 518    | 636    |
| b               | 302   | 336   | 370   | 402   | 448    | 546    |
| Fr2 max (**)    | 67000 | 72000 | 80000 | 95000 | 125000 | 200000 |

| P3H -P4H<br>B3H - B4H | 180   | 200   | 225   | 250   | 280    | 355    |
|-----------------------|-------|-------|-------|-------|--------|--------|
| a                     | 360   | 399   | 439   | 477   | 528    | 643    |
| b                     | 310   | 344   | 379   | 412   | 458    | 553    |
| Fr2 max (**)          | 67000 | 72000 | 80000 | 95000 | 125000 | 200000 |

## 10.4 OVERHUNG/AXIAL LOAD

| P1H - P2H - P3H - P4H<br>B2H - B3H - B4H |         |        |        |        |
|------------------------------------------|---------|--------|--------|--------|
| Size 180                                 |         |        |        |        |
| n2*Lh                                    | Fr2_100 | Fr2_75 | Fr2_50 | Fa_100 |
| 6300000                                  | 14200   | 19900  | 21900  | 9200   |
| 5000000                                  | 14500   | 20500  | 22600  | 9400   |
| 4000000                                  | 15000   | 21100  | 23300  | 9800   |
| 3150000                                  | 15800   | 21800  | 24000  | 10200  |
| 2500000                                  | 18000   | 22500  | 24700  | 10700  |
| 2000000                                  | 21000   | 23700  | 26000  | 11000  |
| 1600000                                  | 27800   | 24900  | 27400  | 11200  |
| 1250000                                  | 30000   | 26200  | 28800  | 11400  |
| 1000000                                  | 31800   | 27600  | 30400  | 11600  |
| 800000                                   | 32700   | 30700  | 33700  | 11900  |
| 630000                                   | 33800   | 34100  | 37500  | 12100  |
| 500000                                   | 35800   | 37900  | 41600  | 12300  |
| 400000                                   | 42200   | 44500  | 49000  | 13000  |
| 315000                                   | 49600   | 52400  | 57600  | 13600  |
| 250000                                   | 52900   | 58200  | 64000  | 14300  |

**n2\*Lh = Number of cycles of output shaft**

**Fr2\_100 = Radial force with 100%  $M_n$**

**Fr2\_75 = Radial force with 75%  $M_n$**

**Fr2\_50 = Radial force with 50%  $M_n$**

**Fa\_100 = Thrust force with 100%  $M_n$**

(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

## 10.4 OVERHUNG/AXIAL LOAD

| P1H - P2H - P3H - P4H<br>B2H - B3H - B4H |         |        |        |        |
|------------------------------------------|---------|--------|--------|--------|
| Size 200                                 |         |        |        |        |
| n2*Lh                                    | Fr2_100 | Fr2_75 | Fr2_50 | Fa_100 |
| 6300000                                  | 24800   | 27300  | 29400  | 10000  |
| 5000000                                  | 25300   | 27800  | 30000  | 10200  |
| 4000000                                  | 25800   | 28400  | 30600  | 10500  |
| 3150000                                  | 26300   | 29000  | 31300  | 10700  |
| 2500000                                  | 30400   | 33400  | 36100  | 10900  |
| 2000000                                  | 33300   | 36600  | 42100  | 11100  |
| 1600000                                  | 34000   | 37400  | 40400  | 11300  |
| 1250000                                  | 34700   | 38200  | 41200  | 11600  |
| 1000000                                  | 35400   | 38900  | 42000  | 11800  |
| 800000                                   | 36100   | 39700  | 42900  | 12000  |
| 630000                                   | 36900   | 40500  | 43800  | 12300  |
| 500000                                   | 38100   | 41900  | 45200  | 12700  |
| 400000                                   | 43500   | 47900  | 51700  | 14500  |
| 315000                                   | 51100   | 56300  | 60800  | 17000  |
| 250000                                   | 61700   | 65400  | 69400  | 20600  |

**n2\*Lh = Number of cycles of output shaft**

**Fr2\_100 = Radial force with 100%  $M_n$**

**Fr2\_75 = Radial force with 75%  $M_n$**

**Fr2\_50 = Radial force with 50%  $M_n$**

**Fa\_100 = Thrust force with 100%  $M_n$**

(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

## 10.4 OVERHUNG/AXIAL LOAD

| P1H - P2H - P3H - P4H<br>B2H - B3H - B4H |         |        |        |        |
|------------------------------------------|---------|--------|--------|--------|
| Size 225                                 |         |        |        |        |
| n2*Lh                                    | Fr2_100 | Fr2_75 | Fr2_50 | Fa_100 |
| 6300000                                  | 32200   | 34100  | 36200  | 16000  |
| 5000000                                  | 33200   | 35200  | 37300  | 16100  |
| 4000000                                  | 34200   | 36200  | 38400  | 16300  |
| 3150000                                  | 35300   | 37400  | 39600  | 16500  |
| 2500000                                  | 36300   | 38500  | 40800  | 16600  |
| 2000000                                  | 37500   | 39700  | 42100  | 16800  |
| 1600000                                  | 38600   | 40900  | 43400  | 17000  |
| 1250000                                  | 39800   | 42200  | 44700  | 17100  |
| 1000000                                  | 41100   | 43500  | 46100  | 17300  |
| 800000                                   | 42300   | 44900  | 47600  | 17500  |
| 630000                                   | 43600   | 46200  | 49000  | 17700  |
| 500000                                   | 48500   | 51400  | 54500  | 19400  |
| 400000                                   | 53900   | 57100  | 60500  | 19700  |
| 315000                                   | 59900   | 63400  | 67200  | 20000  |
| 250000                                   | 66200   | 70100  | 74300  | 22100  |

**n2\*Lh = Number of cycles of output shaft**

**Fr2\_100 = Radial force with 100%  $M_n$**

**Fr2\_75 = Radial force with 75%  $M_n$**

**Fr2\_50 = Radial force with 50%  $M_n$**

**Fa\_100 = Thrust force with 100%  $M_n$**

(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

## 10.4 OVERHUNG/AXIAL LOAD

| P1H - P2H - P3H - P4H<br>B2H - B3H - B4H |         |        |        |        |
|------------------------------------------|---------|--------|--------|--------|
| Size 250                                 |         |        |        |        |
| n2*Lh                                    | Fr2_100 | Fr2_75 | Fr2_50 | Fa_100 |
| 6300000                                  | 39400   | 43400  | 46200  | 18700  |
| 5000000                                  | 40000   | 44000  | 46900  | 19000  |
| 4000000                                  | 40600   | 44700  | 47600  | 19300  |
| 3150000                                  | 41300   | 45400  | 48300  | 19600  |
| 2500000                                  | 43600   | 46300  | 49000  | 19900  |
| 2000000                                  | 44300   | 47000  | 49800  | 20200  |
| 1600000                                  | 45000   | 47700  | 50500  | 20500  |
| 1250000                                  | 45700   | 48400  | 51300  | 20800  |
| 1000000                                  | 46400   | 49100  | 52100  | 21200  |
| 800000                                   | 47100   | 49900  | 52900  | 21500  |
| 630000                                   | 47800   | 50600  | 53700  | 21800  |
| 500000                                   | 49700   | 59700  | 71600  | 22100  |
| 400000                                   | 53400   | 64100  | 76900  | 22500  |
| 315000                                   | 62200   | 74600  | 89500  | 22800  |
| 250000                                   | 69500   | 83400  | 91300  | 23200  |

**n2\*Lh = Number of cycles of output shaft**

**Fr2\_100 = Radial force with 100%  $M_n$**

**Fr2\_75 = Radial force with 75%  $M_n$**

**Fr2\_50 = Radial force with 50%  $M_n$**

**Fa\_100 = Thrust force with 100%  $M_n$**

(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

## 10.4 OVERHUNG/AXIAL LOAD

| P1H - P2H - P3H - P4H<br>B2H - B3H - B4H |         |        |        |        |
|------------------------------------------|---------|--------|--------|--------|
| Size 280                                 |         |        |        |        |
| n2*Lh                                    | Fr2_100 | Fr2_75 | Fr2_50 | Fa_100 |
| 6300000                                  | 60900   | 70100  | 82800  | 20500  |
| 5000000                                  | 61900   | 71100  | 84500  | 20800  |
| 4000000                                  | 62800   | 72200  | 86200  | 21100  |
| 3150000                                  | 63800   | 73300  | 88000  | 21400  |
| 2500000                                  | 65300   | 71800  | 82600  | 21800  |
| 2000000                                  | 66300   | 72900  | 83900  | 22100  |
| 1600000                                  | 67300   | 74000  | 85100  | 22400  |
| 1250000                                  | 68300   | 75200  | 86400  | 22800  |
| 1000000                                  | 69400   | 76300  | 87800  | 23100  |
| 800000                                   | 70400   | 77500  | 89100  | 23500  |
| 630000                                   | 71500   | 78700  | 90400  | 23800  |
| 500000                                   | 78000   | 85800  | 98700  | 26000  |
| 400000                                   | 84500   | 93000  | 106900 | 28200  |
| 315000                                   | 88200   | 97000  | 111600 | 29400  |
| 250000                                   | 91500   | 109700 | 122700 | 30500  |

**n2\*Lh = Number of cycles of output shaft**

**Fr2\_100 = Radial force with 100%  $M_n$**

**Fr2\_75 = Radial force with 75%  $M_n$**

**Fr2\_50 = Radial force with 50%  $M_n$**

**Fa\_100 = Thrust force with 100%  $M_n$**

(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

## 10.4 OVERHUNG/AXIAL LOAD

| P1H - P2H - P3H - P4H<br>B2H - B3H - B4H |         |        |        |        |
|------------------------------------------|---------|--------|--------|--------|
| Size 355                                 |         |        |        |        |
| n2*Lh                                    | Fr2_100 | Fr2_75 | Fr2_50 | Fa_100 |
| 6300000                                  | 57400   | 68900  | 86100  | 27900  |
| 5000000                                  | 63800   | 76500  | 95700  | 28200  |
| 4000000                                  | 70900   | 85100  | 106300 | 28500  |
| 3150000                                  | 78800   | 94500  | 118100 | 28800  |
| 2500000                                  | 82500   | 99000  | 123800 | 29100  |
| 2000000                                  | 105000  | 126000 | 157500 | 29400  |
| 1600000                                  | 120000  | 128300 | 161000 | 29700  |
| 1250000                                  | 126000  | 131600 | 162600 | 30000  |
| 1000000                                  | 117000  | 135000 | 164300 | 30300  |
| 800000                                   | 120000  | 138500 | 165900 | 30600  |
| 630000                                   | 123500  | 142000 | 167600 | 30900  |
| 500000                                   | 130000  | 149500 | 176400 | 32500  |
| 400000                                   | 143000  | 164500 | 179900 | 35800  |
| 315000                                   | 149500  | 171900 | 188900 | 37400  |
| 250000                                   | 163800  | 188400 | 198400 | 41000  |

**n2\*Lh = Number of cycles of output shaft**

**Fr2\_100 = Radial force with 100%  $M_n$**

**Fr2\_75 = Radial force with 75%  $M_n$**

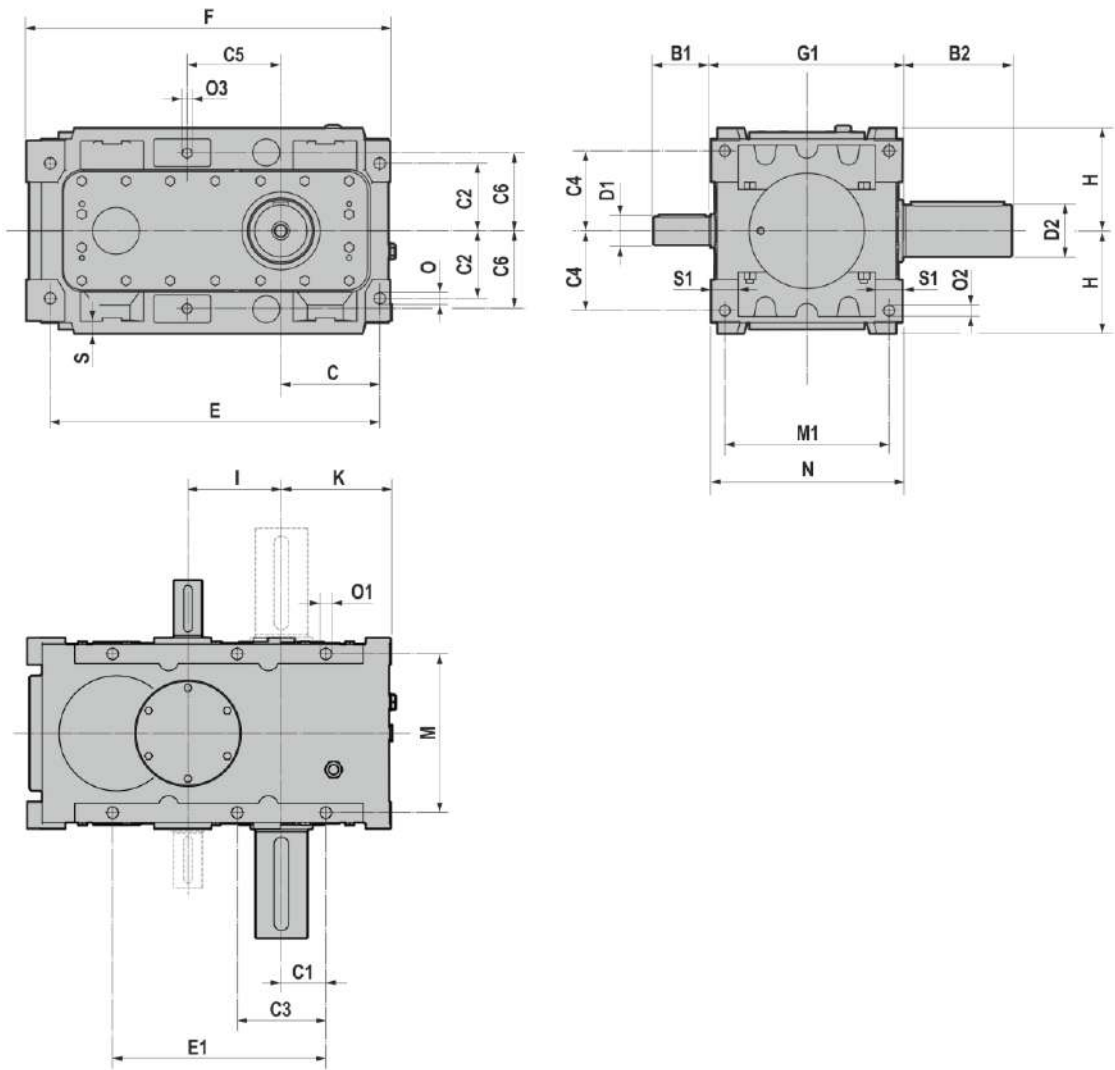
**Fr2\_50 = Radial force with 50%  $M_n$**

**Fa\_100 = Thrust force with 100%  $M_n$**

(\*\*) Fr2 max [N] Maximum permissible value for gear reducer under static conditions and/or for short periods of duty. For continuous-duty radial loading, please verify the values given in the specific tables based on the number of calculated cycles according to casing, shaft and bearings.

If both radial and thrust loads are applied at the same time, only 20% of the thrust load given in the table is allowed. In the event of mounting on the short side, please contact MOTOVARIO TECHNICAL SERVICE.

11.1.1 P1H

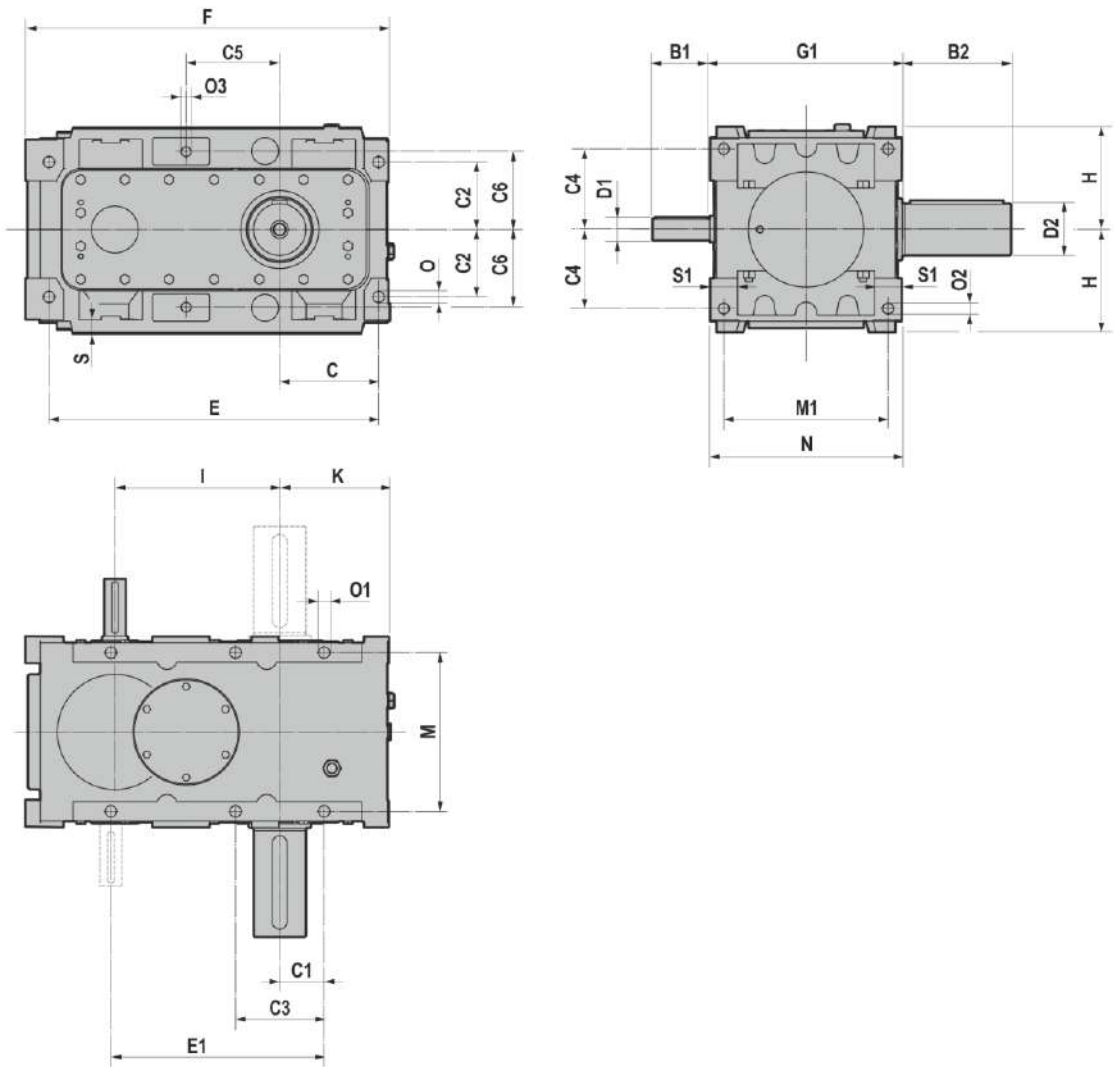


| P1H | D2  | B2  | i <sub>n</sub> ≤ 4 |     | i <sub>n</sub> > 4 |     | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1  |
|-----|-----|-----|--------------------|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
|     |     |     | D1                 | B1  | D1                 | B1  |     |     |     |     |     |     |     |      |     |
| 180 | 100 | 210 | 60                 | 140 | 55                 | 110 | 190 | 85  | 130 | -   | 157 | 180 | 150 | 634  | 410 |
| 200 | 110 | 210 | 65                 | 140 | 60                 | 140 | 200 | 95  | 145 | 190 | 115 | 190 | 165 | 674  | 450 |
| 225 | 120 | 210 | 70                 | 140 | 65                 | 140 | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 753  | 503 |
| 250 | 130 | 250 | 80                 | 170 | 70                 | 140 | 255 | 125 | 210 | 250 | 251 | 220 | 255 | 830  | 570 |
| 280 | 140 | 250 | 90                 | 170 | 80                 | 170 | 275 | 135 | 230 | 270 | 265 | 270 | 230 | 966  | 635 |
| 355 | 180 | 300 | 110                | 190 | 100                | 190 | 380 | 200 | 285 | 400 | 330 | 410 | 285 | 1220 | 825 |

| P1H | F    | G1  | H   | I   | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|------|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 700  | 370 | 198 | 180 | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 745  | 410 | 220 | 200 | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 29 | 53 |
| 225 | 832  | 450 | 243 | 225 | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 915  | 490 | 300 | 250 | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 70 |
| 280 | 1060 | 540 | 320 | 280 | 308 | 430 | 440 | 530 | 30 | 26 | M27 | M24 | 29 | 79 |
| 355 | 1340 | 640 | 390 | 355 | 425 | 495 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 60 |

11.1 REDUCERS/GEARED MOTORS

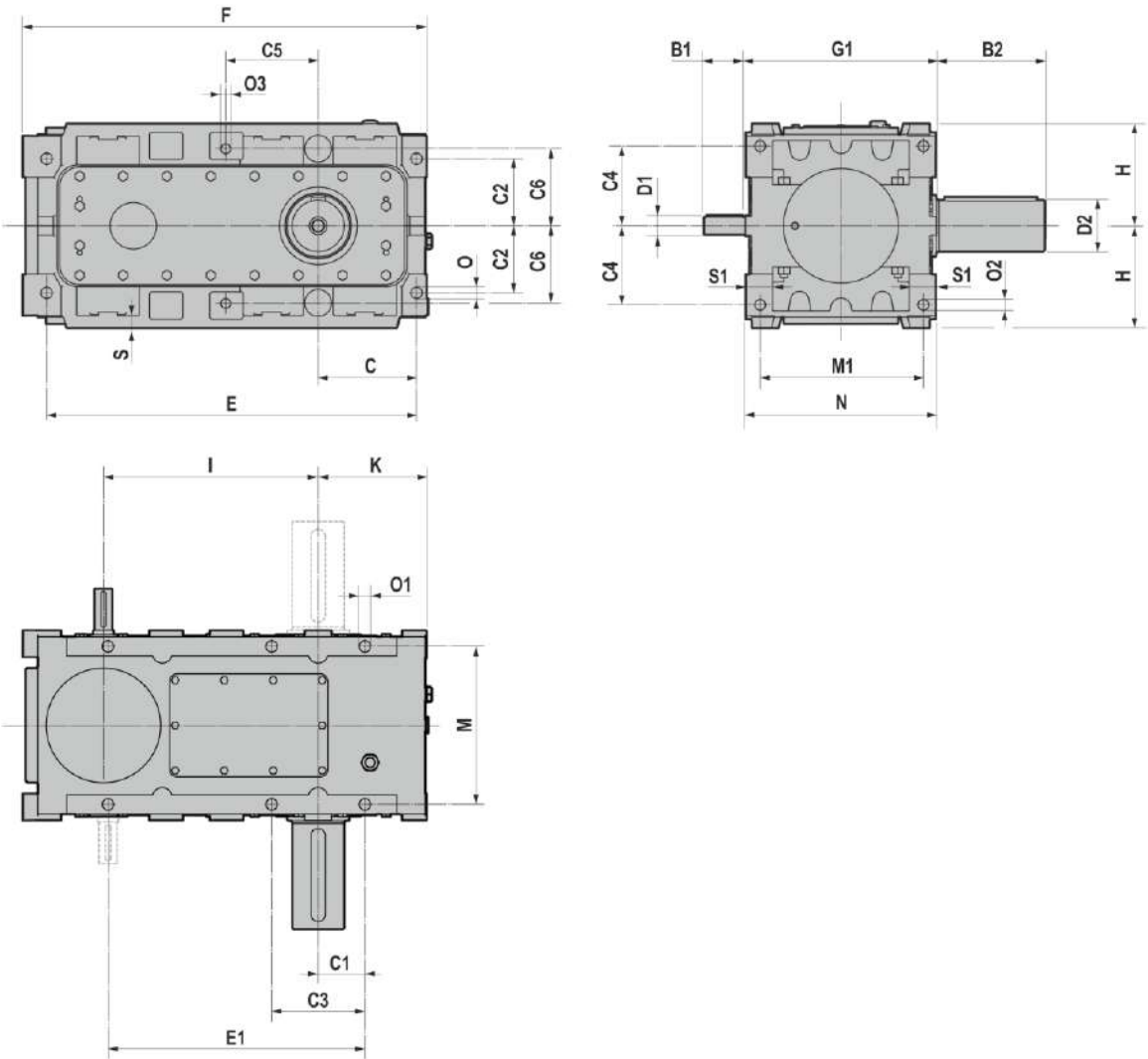
11.1.2 P2H



| P2H | D2  | B2  | D1 | B1  | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1  | F    |
|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|
| 180 | 100 | 210 | 48 | 110 | 190 | 85  | 130 | -   | 157 | 180 | 150 | 634  | 410 | 700  |
| 200 | 110 | 210 | 55 | 110 | 200 | 95  | 145 | 190 | 115 | 190 | 165 | 674  | 450 | 745  |
| 225 | 120 | 210 | 60 | 140 | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 753  | 503 | 832  |
| 250 | 130 | 250 | 65 | 140 | 255 | 125 | 210 | 250 | 251 | 220 | 255 | 830  | 570 | 915  |
| 280 | 140 | 250 | 70 | 140 | 275 | 135 | 230 | 270 | 265 | 270 | 230 | 966  | 635 | 1060 |
| 355 | 180 | 300 | 90 | 170 | 380 | 200 | 285 | 400 | 330 | 410 | 285 | 1220 | 825 | 1340 |

| P2H | G1  | H   | I   | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 370 | 198 | 317 | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 410 | 220 | 352 | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 29 | 53 |
| 225 | 450 | 243 | 397 | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 490 | 300 | 440 | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 70 |
| 280 | 540 | 320 | 493 | 308 | 430 | 440 | 530 | 30 | 26 | M27 | M24 | 29 | 79 |
| 355 | 640 | 390 | 625 | 430 | 495 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 60 |

11.1.3 P3H

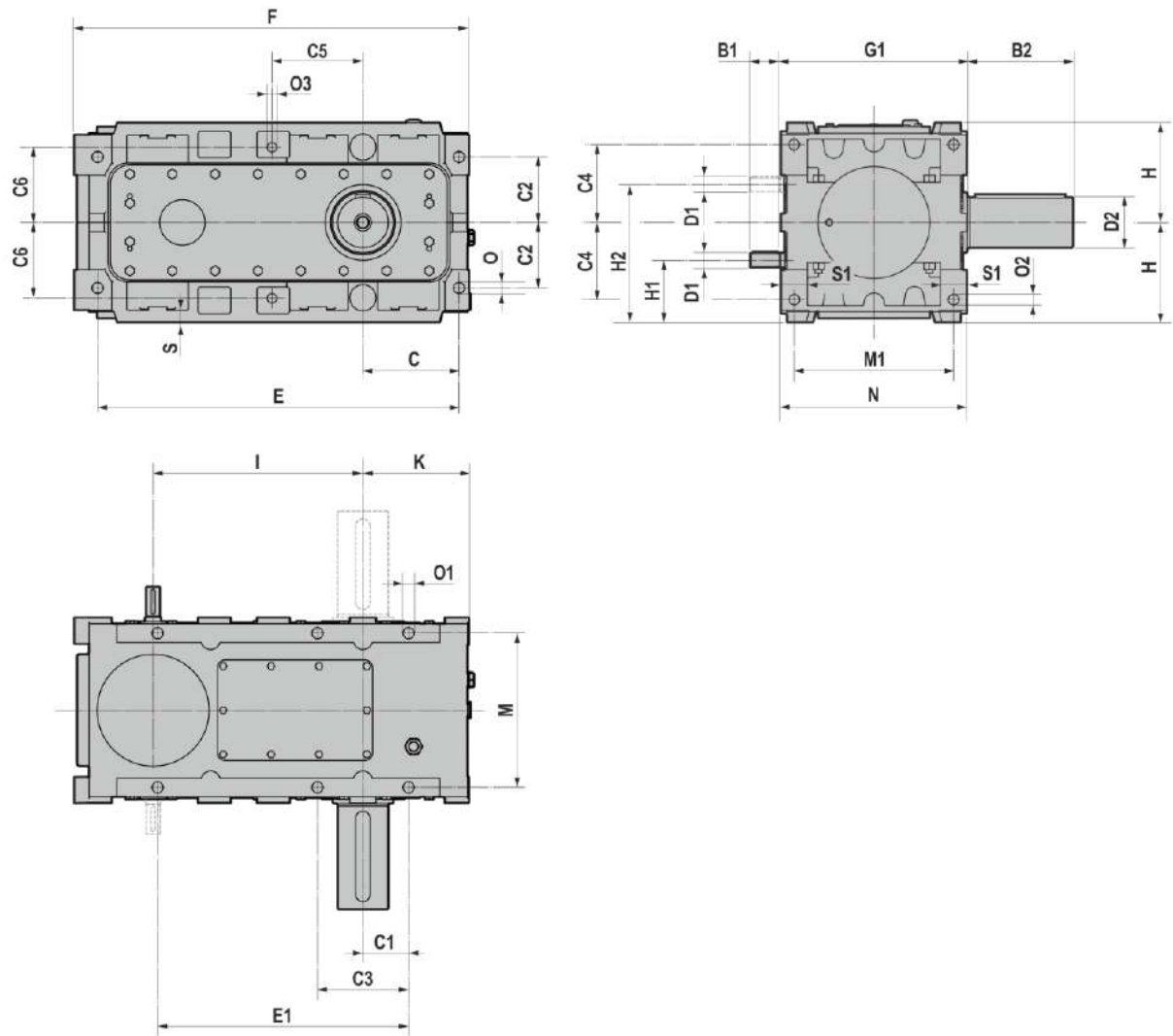


| P3H | D2  | B2  | D1 | B1  | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1   | F    |
|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 180 | 100 | 210 | 38 | 80  | 190 | 90  | 130 | 180 | 157 | 180 | 150 | 716  | 497  | 782  |
| 200 | 110 | 210 | 42 | 110 | 200 | 95  | 145 | 190 | 171 | 190 | 165 | 785  | 560  | 850  |
| 225 | 120 | 210 | 48 | 110 | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 868  | 618  | 946  |
| 250 | 130 | 250 | 55 | 110 | 255 | 125 | 210 | 270 | 251 | 220 | 246 | 970  | 710  | 1053 |
| 280 | 140 | 250 | 60 | 140 | 270 | 135 | 230 | 270 | 265 | 270 | 230 | 1070 | 790  | 1163 |
| 355 | 180 | 300 | 70 | 140 | 380 | 200 | 285 | 400 | 330 | 365 | 285 | 1395 | 1030 | 1510 |

| P3H | G1  | H   | I   | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 370 | 198 | 416 | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 410 | 220 | 462 | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 30 | 53 |
| 225 | 450 | 243 | 527 | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 490 | 300 | 577 | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 66 |
| 280 | 540 | 320 | 647 | 306 | 430 | 470 | 530 | 30 | 26 | M24 | M24 | 29 | 60 |
| 355 | 640 | 390 | 820 | 425 | 494 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 59 |

11.1 REDUCERS/GEARED MOTORS

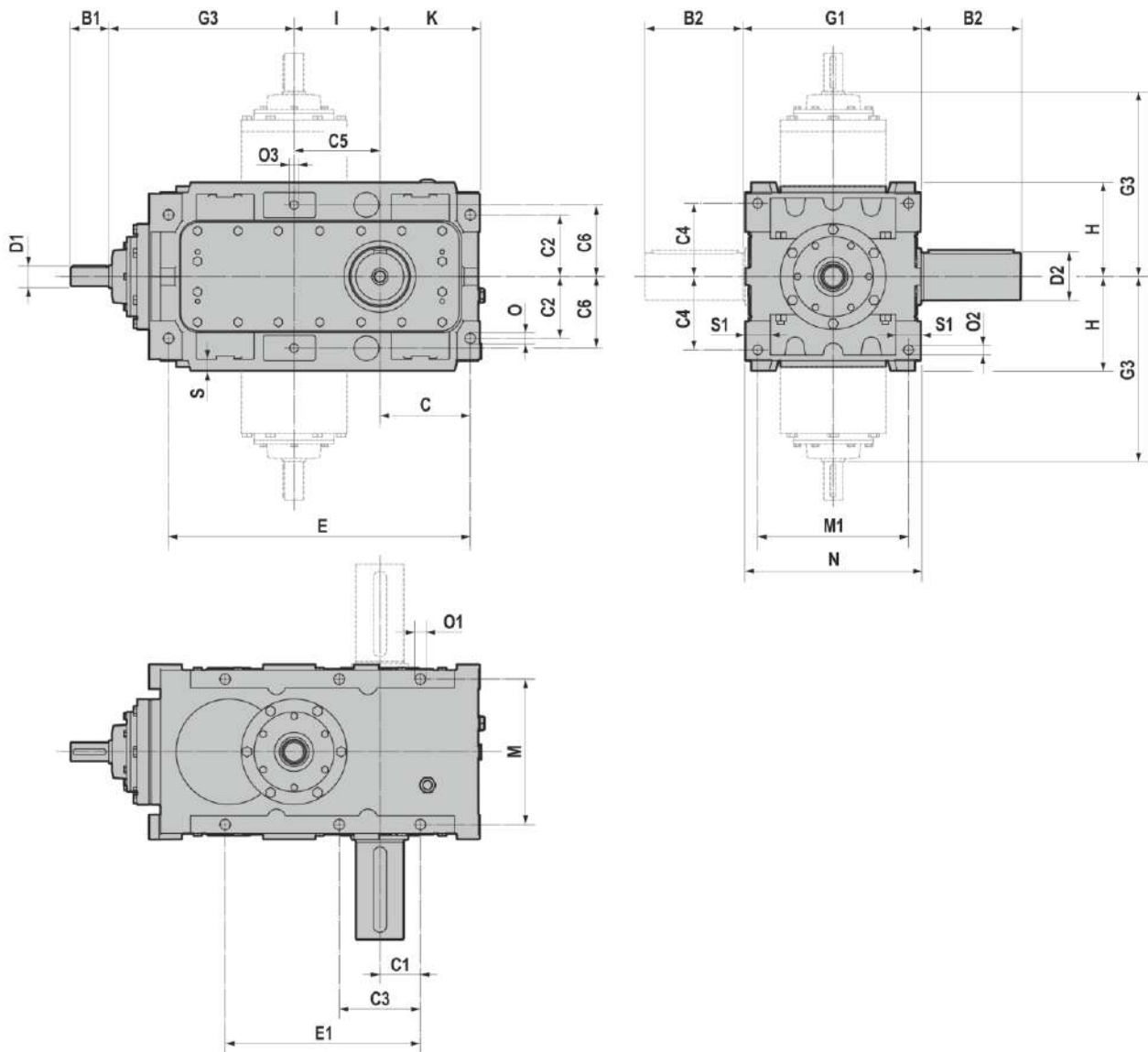
11.1.4 P4H



| P4H | D2  | B2  | D1 | B1  | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1   | F    | G1  |
|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|
| 180 | 100 | 210 | 28 | 60  | 190 | 90  | 130 | 180 | 157 | 180 | 150 | 716  | 497  | 782  | 370 |
| 200 | 110 | 210 | 28 | 60  | 200 | 95  | 145 | 190 | 171 | 190 | 165 | 785  | 560  | 850  | 410 |
| 225 | 120 | 210 | 32 | 80  | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 868  | 618  | 946  | 450 |
| 250 | 130 | 250 | 38 | 80  | 255 | 125 | 210 | 270 | 251 | 220 | 246 | 970  | 710  | 1053 | 490 |
| 280 | 140 | 250 | 42 | 110 | 270 | 135 | 230 | 270 | 265 | 270 | 230 | 1070 | 790  | 1163 | 540 |
| 355 | 180 | 300 | 55 | 110 | 380 | 200 | 285 | 400 | 330 | 365 | 285 | 1395 | 1030 | 1510 | 640 |

| P4H | H   | H1  | H2  | I     | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|-----|-----|-----|-------|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 198 | 123 | 273 | 416   | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 220 | 136 | 304 | 462   | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 30 | 53 |
| 225 | 243 | 164 | 340 | 527   | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 300 | 200 | 400 | 577   | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 66 |
| 280 | 320 | 212 | 428 | 599,5 | 306 | 430 | 470 | 530 | 30 | 26 | M24 | M24 | 29 | 60 |
| 355 | 390 | 254 | 526 | 759,1 | 425 | 494 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 59 |

11.1.5 B2H

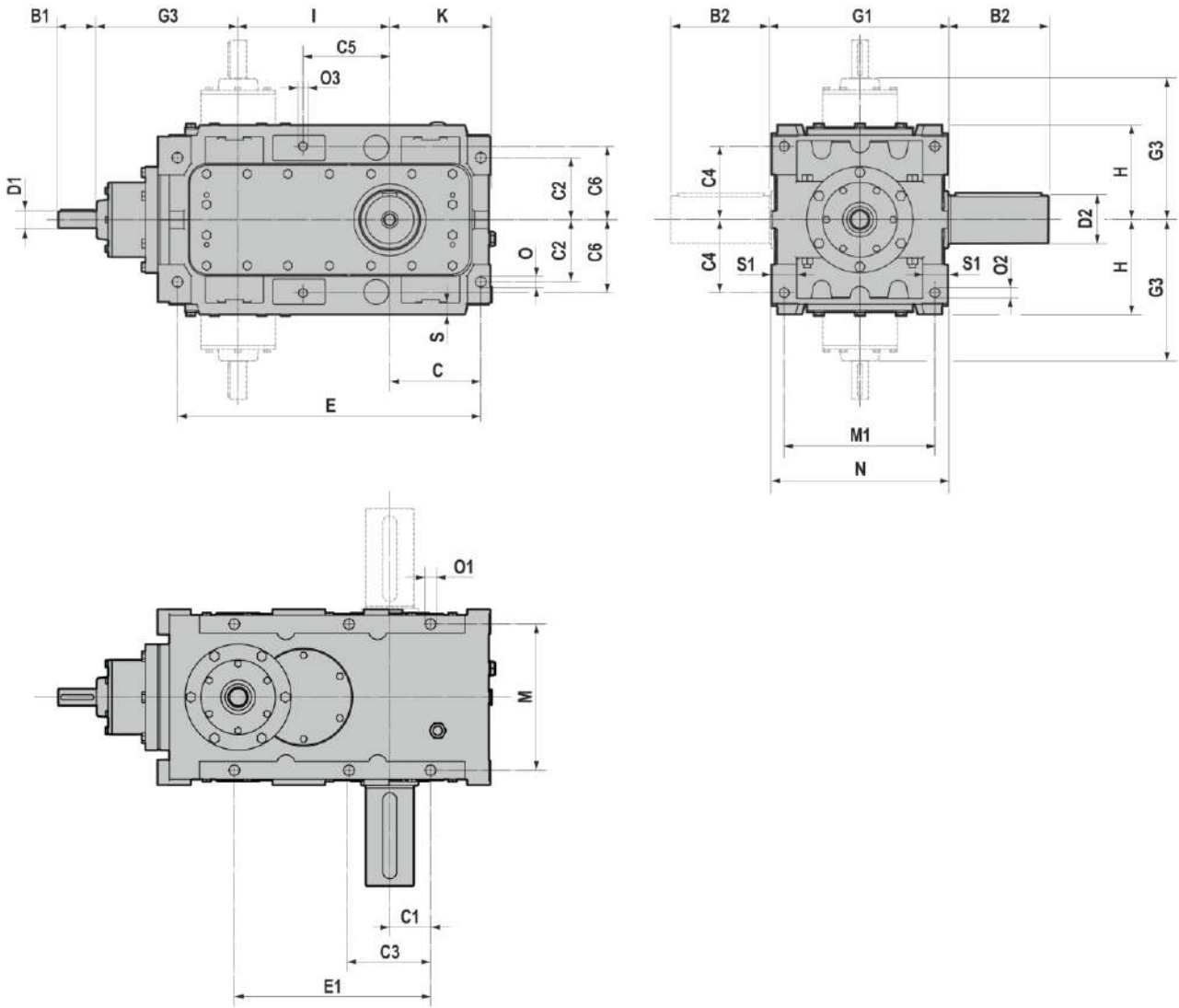


| B2H | D2  | B2  | D1 | B1  | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1  | G1  |
|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|
| 180 | 100 | 210 | 42 | 110 | 190 | 85  | 130 | -   | 157 | 180 | 150 | 634  | 410 | 370 |
| 200 | 110 | 210 | 48 | 110 | 200 | 95  | 145 | 190 | 115 | 190 | 165 | 674  | 450 | 410 |
| 225 | 120 | 210 | 60 | 140 | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 753  | 503 | 450 |
| 250 | 130 | 250 | 65 | 140 | 255 | 125 | 210 | 250 | 251 | 220 | 255 | 830  | 570 | 490 |
| 280 | 140 | 250 | 70 | 140 | 275 | 135 | 230 | 270 | 265 | 270 | 230 | 966  | 635 | 540 |
| 355 | 180 | 300 | 90 | 170 | 380 | 200 | 285 | 400 | 330 | 410 | 285 | 1220 | 825 | 640 |

| B2H | G3  | H   | I   | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 390 | 198 | 180 | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 438 | 220 | 200 | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 29 | 53 |
| 225 | 538 | 243 | 225 | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 556 | 300 | 250 | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 70 |
| 280 | 573 | 320 | 280 | 308 | 430 | 440 | 530 | 30 | 26 | M27 | M24 | 29 | 79 |
| 355 | 695 | 390 | 355 | 430 | 495 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 60 |

11.1 REDUCERS/GEARED MOTORS

11.1.6 B3H



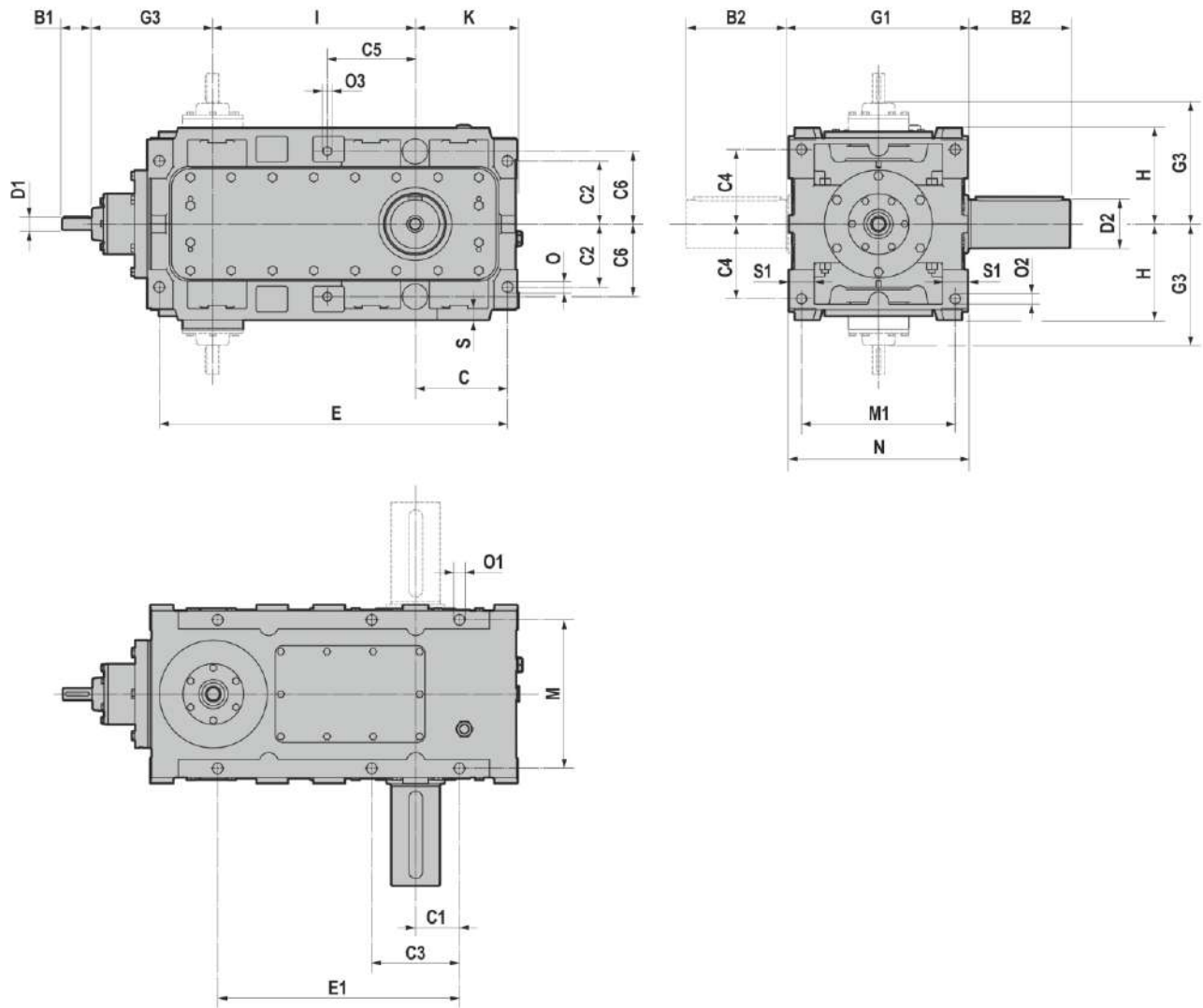
| B3H | D2  | B2  | D1 | B1  | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1  | G1  |
|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|
| 180 | 100 | 210 | 35 | 80  | 190 | 85  | 130 | -   | 157 | 180 | 150 | 634  | 410 | 370 |
| 200 | 110 | 210 | 38 | 80  | 200 | 95  | 145 | 190 | 115 | 190 | 165 | 674  | 450 | 410 |
| 225 | 120 | 210 | 42 | 110 | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 753  | 503 | 450 |
| 250 | 130 | 250 | 48 | 110 | 255 | 125 | 210 | 250 | 251 | 220 | 255 | 830  | 570 | 490 |
| 280 | 140 | 250 | 60 | 140 | 275 | 135 | 230 | 270 | 265 | 270 | 230 | 966  | 635 | 540 |
| 355 | 180 | 300 | 70 | 140 | 380 | 200 | 285 | 400 | 330 | 410 | 285 | 1220 | 825 | 640 |

| B3H | G3  | H   | I   | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 290 | 198 | 317 | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 328 | 220 | 352 | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 29 | 53 |
| 225 | 390 | 243 | 397 | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 453 | 300 | 440 | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 70 |
| 280 | 538 | 320 | 493 | 308 | 430 | 440 | 530 | 30 | 26 | M27 | M24 | 29 | 79 |
| 355 | 573 | 390 | 625 | 430 | 495 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 60 |

11.1 REDUCERS/GEARED MOTORS

11.1.7 B4H

PBH



| B4H | D2  | B2  | D1 | B1  | C   | C1  | C2  | C3  | C4  | C5  | C6  | E    | E1   | G1  |
|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|
| 180 | 100 | 210 | 28 | 60  | 190 | 90  | 130 | 180 | 157 | 180 | 150 | 716  | 497  | 370 |
| 200 | 110 | 210 | 28 | 60  | 200 | 95  | 145 | 190 | 171 | 190 | 165 | 785  | 560  | 410 |
| 225 | 120 | 210 | 35 | 80  | 220 | 100 | 150 | 200 | 189 | 205 | 185 | 868  | 618  | 450 |
| 250 | 130 | 250 | 38 | 80  | 255 | 125 | 210 | 270 | 251 | 220 | 255 | 970  | 710  | 490 |
| 280 | 140 | 250 | 42 | 110 | 275 | 135 | 230 | 270 | 265 | 270 | 230 | 1070 | 790  | 540 |
| 355 | 180 | 300 | 60 | 140 | 380 | 200 | 285 | 400 | 330 | 410 | 285 | 1395 | 1030 | 640 |

| B4H | G3  | H   | I   | K   | M   | M1  | N   | O  | O1 | O2  | O3  | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|----|----|
| 180 | 250 | 198 | 416 | 210 | 306 | 312 | 360 | 22 | 22 | M22 | M18 | 24 | 48 |
| 200 | 253 | 220 | 462 | 223 | 335 | 347 | 400 | 26 | 22 | M22 | M20 | 29 | 53 |
| 225 | 377 | 243 | 527 | 248 | 366 | 383 | 440 | 28 | 24 | M24 | M22 | 34 | 57 |
| 250 | 328 | 300 | 577 | 285 | 386 | 410 | 480 | 28 | 24 | M24 | M24 | 29 | 70 |
| 280 | 390 | 320 | 647 | 308 | 430 | 470 | 530 | 30 | 26 | M27 | M24 | 29 | 79 |
| 355 | 484 | 390 | 820 | 430 | 495 | 570 | 630 | 35 | 35 | M33 | M30 | 42 | 60 |

## 11.2 WEIGHTS

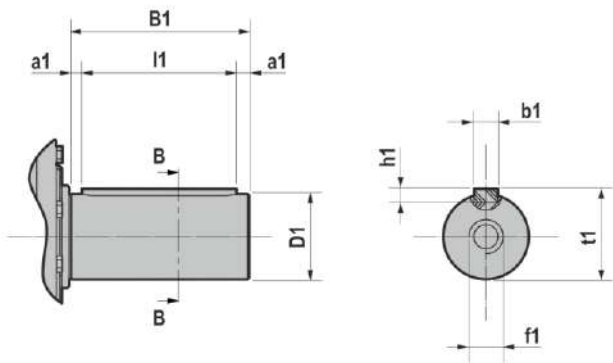
The values reported in the tables are referred to the weight of the gearbox without lubricant.

| PH  | [- kg] |      |      |      |
|-----|--------|------|------|------|
|     | P1H    | P2H  | P3H  | P4H  |
| 180 | 365    | 385  | 412  | 475  |
| 200 | 390    | 480  | 475  | 540  |
| 225 | 545    | 625  | 625  | 710  |
| 250 | 750    | 855  | 1050 | 1170 |
| 280 | 910    | 930  | 1320 | 1455 |
| 355 | 1315   | 1865 | 2090 | 2335 |

| BH  | [- kg] |      |      |
|-----|--------|------|------|
|     | B2H    | B3H  | B4H  |
| 180 | 375    | 435  | 475  |
| 200 | 470    | 510  | 545  |
| 225 | 620    | 640  | 720  |
| 250 | 810    | 980  | 1190 |
| 280 | 950    | 1070 | 1470 |
| 355 | 1510   | 1970 | 2360 |

11.3 SHAFT END

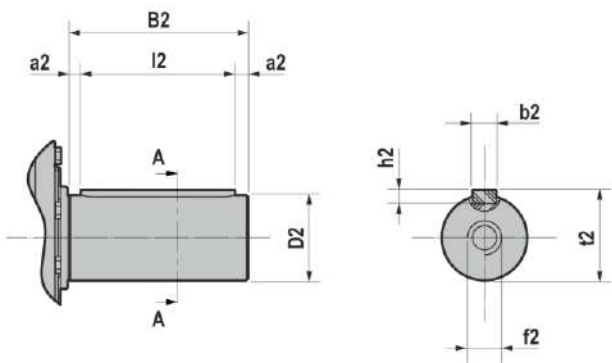
11.3.1 Input shaft end



| D1     | B1  | b1 | t1   | f1  | b1xh1xl1  | a1 |
|--------|-----|----|------|-----|-----------|----|
| 28 k6  | 60  | 8  | 31   | M10 | 8x7x50    | 5  |
| 32 k6  | 80  | 10 | 35   | M12 | 10x8x70   | 5  |
| 35 k6  | 80  | 10 | 38   | M12 | 10x8x70   | 5  |
| 38 k6  | 80  | 10 | 41   | M12 | 10x8x70   | 5  |
| 42 k6  | 110 | 12 | 45   | M16 | 12x8x100  | 5  |
| 48 k6  | 110 | 14 | 51,5 | M16 | 14x9x100  | 5  |
| 55 m6  | 110 | 16 | 59   | M20 | 16x10x100 | 5  |
| 60 m6  | 140 | 16 | 64   | M20 | 16x11x130 | 5  |
| 65 m6  | 140 | 18 | 69   | M20 | 18x11x130 | 5  |
| 70 m6  | 140 | 20 | 74,5 | M20 | 20x12x130 | 5  |
| 80 m6  | 170 | 22 | 85   | M20 | 22x14x150 | 10 |
| 90 m6  | 170 | 25 | 95   | M24 | 25x14x150 | 10 |
| 100 m6 | 210 | 28 | 106  | M24 | 28x16x180 | 15 |
| 110 m6 | 210 | 28 | 116  | M24 | 28x16x180 | 15 |

11.3 SHAFT END

11.3.2 Output shaft end

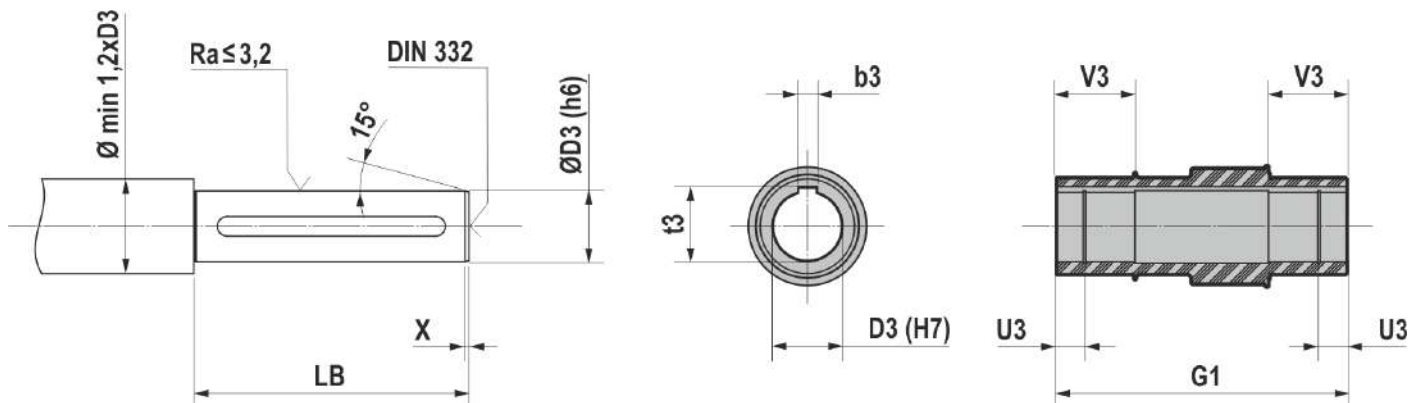


| PH - BH | D2 m6 | B2  | b2 | t2  | f2  | b2xh2xf2  | a2 |
|---------|-------|-----|----|-----|-----|-----------|----|
| 180     | 100   | 210 | 28 | 106 | M24 | 28x16x180 | 15 |
| 200     | 110   | 210 | 28 | 116 | M24 | 28x16x180 | 15 |
| 225     | 120   | 210 | 32 | 127 | M24 | 32x18x180 | 15 |
| 250     | 130   | 250 | 32 | 137 | M24 | 32x18x240 | 5  |
| 280     | 140   | 250 | 36 | 148 | M30 | 36x20x220 | 15 |
| 355     | 180   | 300 | 45 | 190 | M30 | 45x25x250 | 25 |

Dimension also valid for double output shaft version.

## 12.1 LOW SPEED SHAFTS

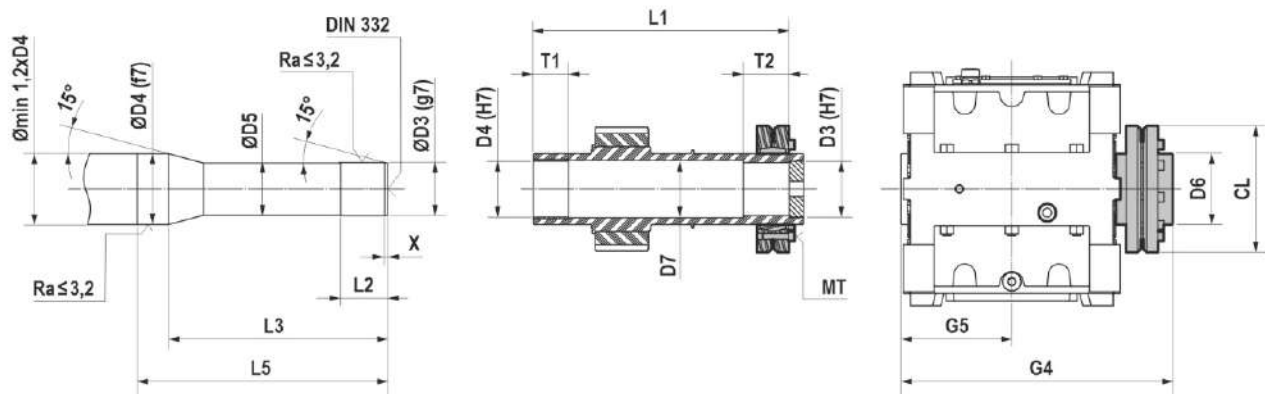
## 12.1.1 Hollow output shaft with keyway



| PH - BH | D3<br>(H7/h6) | b3 | t3    | G1  | U3 | V3  | LB  | X |
|---------|---------------|----|-------|-----|----|-----|-----|---|
| 180     | 90            | 25 | 95,4  | 370 | 12 | 80  | 330 | 5 |
| 200     | 100           | 28 | 106,4 | 410 | 12 | 95  | 370 | 5 |
| 225     | 115           | 32 | 122,4 | 450 | 15 | 102 | 405 | 5 |
| 250     | 125           | 32 | 132,4 | 490 | 15 | 105 | 445 | 5 |
| 280     | 140           | 36 | 148,4 | 540 | 17 | 122 | 486 | 5 |
| 355     | 170           | 40 | 179,4 | 640 | 17 | 150 | 586 | 5 |

## 12.1.2 Hollow output shaft with shrink disc

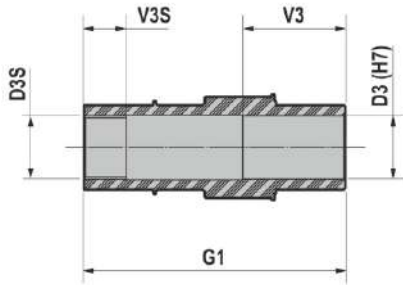
Clean and degrease the surfaces of the shaft to be fitted to. Comply with the indicated tightening torque of screws (  $M_T$  ).



| PH - BH | D3<br>(H7/g7) | D4<br>(H7/f7) | D5  | D6  | D7  | CL  | G4  | G5  | L1  | L2  | L3  | L5  | T1 | T2  | X | $M_T$ 12.9<br>[Nm] |
|---------|---------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|---|--------------------|
| 180     | 90            | 100           | 88  | 120 | 97  | 215 | 458 | 185 | 434 | 80  | 370 | 426 | 60 | 78  | 5 | 59                 |
| 200     | 100           | 107           | 98  | 130 | 103 | 215 | 494 | 205 | 469 | 80  | 390 | 460 | 75 | 76  | 5 | 59                 |
| 225     | 105           | 116           | 102 | 140 | 113 | 230 | 564 | 225 | 537 | 85  | 452 | 527 | 80 | 82  | 5 | 100                |
| 250     | 120           | 130           | 118 | 160 | 124 | 265 | 622 | 245 | 592 | 120 | 505 | 580 | 80 | 110 | 5 | 100                |
| 280     | 130           | 140           | 128 | 170 | 134 | 290 | 660 | 270 | 630 | 120 | 542 | 614 | 80 | 110 | 5 | 250                |
| 355     | 170           | 180           | 165 | 220 | 176 | 370 | 790 | 320 | 760 | 170 | 662 | 744 | 90 | 165 | 5 | 250                |

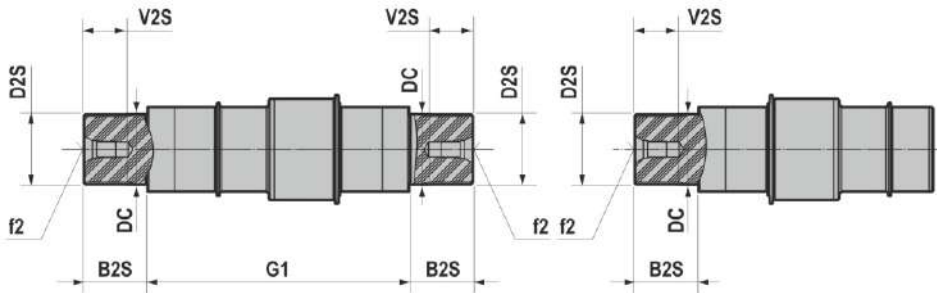
12.1 LOW SPEED SHAFTS

12.1.3 Splined hollow output shaft



| PH - BH | D3S<br>(DIN5480) | D3  | G1  | V3  | V3S |
|---------|------------------|-----|-----|-----|-----|
| 180     | 90x3x28          | 90  | 370 | 145 | 60  |
| 200     | 100x3x32         | 100 | 410 | 160 | 70  |
| 225     | 110x4x26         | 115 | 450 | 184 | 80  |
| 250     | 120x4x28         | 125 | 490 | 185 | 95  |
| 280     | 140x5x26         | 140 | 540 | 223 | 110 |
| 355     | 160x5x30         | 170 | 640 | 260 | 150 |

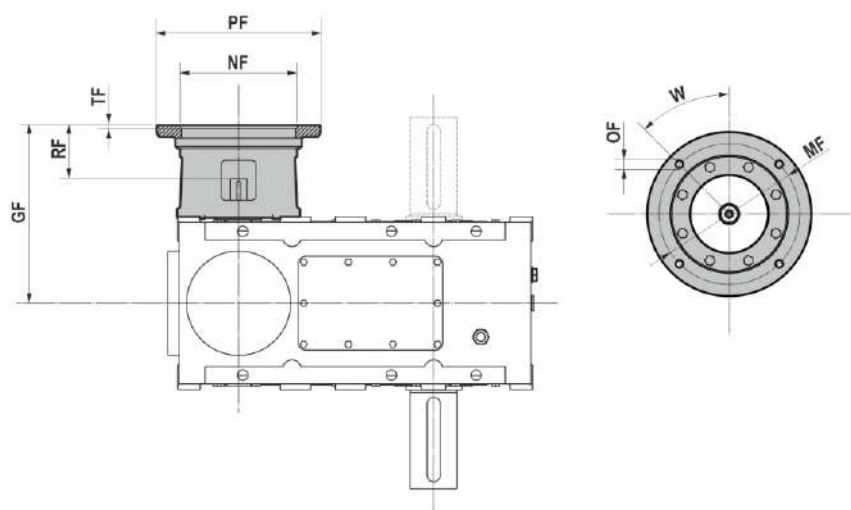
12.1.4 Splined output shaft



| PH - BH | D2S<br>(DIN5480) | DC f7 | B2S | f2  | G1  | V2S |
|---------|------------------|-------|-----|-----|-----|-----|
| 180     | 100x3x32         | 100   | 90  | M24 | 370 | 60  |
| 200     | 110x3x35         | 110   | 100 | M24 | 410 | 70  |
| 225     | 120x4x28         | 120   | 110 | M24 | 450 | 80  |
| 250     | 130x4x31         | 130   | 120 | M24 | 490 | 90  |
| 280     | 150x5x28         | 150   | 135 | M24 | 540 | 100 |
| 355     | 180x8x21         | 180   | 180 | M30 | 640 | 140 |

12.2 INPUT FLANGES

12.2.1 Motor mounting flanges - PH



| P2H | dm (1)       | PF  | GF  | NF  | MF  | TF | RF  | OF         | W      |
|-----|--------------|-----|-----|-----|-----|----|-----|------------|--------|
| 180 | 48           | 350 | 409 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55           | 400 | 409 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60           | 450 | 439 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65           | 550 | 442 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 200 | 55           | 400 | 429 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60           | 450 | 459 | 350 | 400 | 7  | 152 | M16 (n° 8) | 22°30' |
|     | 65 - 75      | 550 | 462 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 225 | 60           | 450 | 509 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75      | 550 | 512 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 250 | 65 - 75      | 550 | 532 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80           | 660 | 562 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
| 280 | 60 - 65 - 75 | 550 | 557 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 65 - 80      | 660 | 587 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
| 355 | 80           | 660 | 673 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |

(1) Motor shaft diameter.

## 12.2 INPUT FLANGES

| P3H | dm (1)  | PF  | GF  | NF  | MF  | TF | RF  | OF         | W      |
|-----|---------|-----|-----|-----|-----|----|-----|------------|--------|
| 180 | 28      | 250 | 329 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
|     | 38      | 300 | 349 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 379 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 379 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
| 200 | 38      | 300 | 399 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 429 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 429 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 459 | 350 | 400 | 7  | 144 | M16 (n° 8) | 45°    |
| 225 | 42 - 48 | 350 | 449 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 449 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 479 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 482 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 250 | 42 - 48 | 350 | 470 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 470 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 500 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 503 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 280 | 42 - 48 | 350 | 524 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 524 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 554 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 557 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 355 | 80      | 660 | 587 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
|     | 60      | 450 | 604 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 607 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80      | 660 | 637 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |

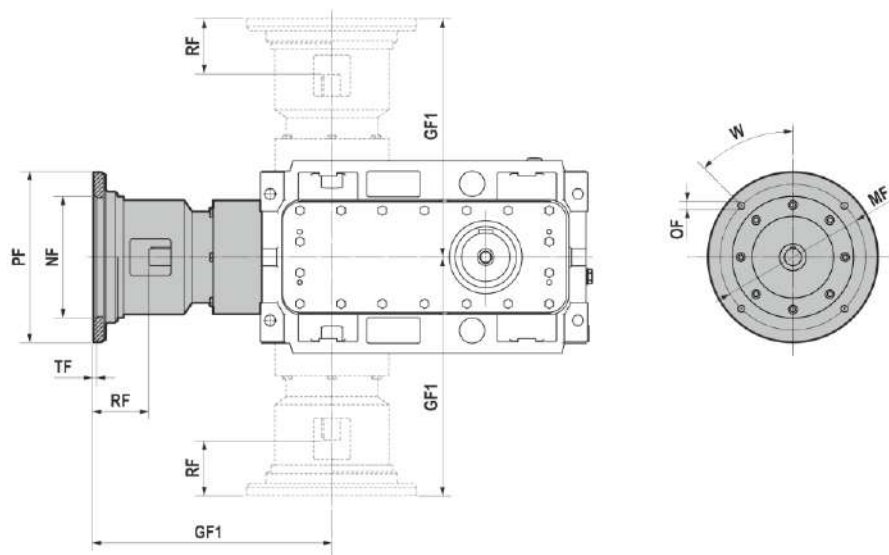
  

| P4H | dm (1)  | PF  | GF  | NF  | MF  | TF | RF  | OF         | W      |
|-----|---------|-----|-----|-----|-----|----|-----|------------|--------|
| 180 | 28      | 250 | 309 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
|     | 38      | 300 | 329 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
| 200 | 28      | 250 | 329 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
|     | 38      | 300 | 349 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
| 225 | 42 - 48 | 350 | 379 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 38      | 300 | 389 | 230 | 265 | 7  | 84  | M12 (n° 4) | 45°    |
| 250 | 42 - 48 | 350 | 419 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 38      | 300 | 409 | 230 | 265 | 7  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 439 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
| 280 | 55      | 400 | 439 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 38      | 300 | 464 | 230 | 265 | 7  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 494 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 494 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
| 355 | 60      | 450 | 524 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 42 - 48 | 350 | 544 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 544 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 574 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65      | 550 | 577 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |

(1) Motor shaft diameter.

12.2 INPUT FLANGES

12.2.2 Motor mounting flanges - BH



| B2H | dm (1)  | PF  | GF1  | NF  | MF  | TF | RF  | OF         | W      |
|-----|---------|-----|------|-----|-----|----|-----|------------|--------|
| 180 | 42 - 48 | 350 | 614  | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 614  | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 644  | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 647  | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 200 | 55      | 400 | 662  | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 692  | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 695  | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80      | 660 | 725  | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
| 225 | 55      | 400 | 792  | 300 | 350 | 7  | 144 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 822  | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 825  | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80      | 660 | 855  | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
| 250 | 60      | 450 | 840  | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 843  | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80      | 660 | 873  | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
| 280 | 65 - 75 | 550 | 860  | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80      | 660 | 890  | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
| 355 | 80      | 660 | 1042 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |

(1) Motor shaft diameter.

## 12.2 INPUT FLANGES

| B3H | dm (1)  | PF  | GFI | NF  | MF  | TF | RF  | OF         | W      |
|-----|---------|-----|-----|-----|-----|----|-----|------------|--------|
| 180 | 28      | 250 | 434 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
|     | 38      | 300 | 454 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 484 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 484 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
| 200 | 38      | 300 | 492 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 522 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 522 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 552 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
| 225 | 42 - 48 | 350 | 614 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 614 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 644 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 647 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 250 | 42 - 48 | 350 | 677 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 677 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 707 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 710 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 280 | 42 - 48 | 350 | 792 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 792 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 822 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 825 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
| 355 | 80      | 660 | 855 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |
|     | 60      | 450 | 857 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65 - 75 | 550 | 860 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |
|     | 80      | 660 | 890 | 550 | 600 | 8  | 177 | M16 (n° 8) | 22°30' |

| B4H | dm (1)  | PF  | GFI | NF  | MF  | TF | RF  | OF         | W      |
|-----|---------|-----|-----|-----|-----|----|-----|------------|--------|
| 180 | 28      | 250 | 374 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
|     | 38      | 300 | 394 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
| 200 | 28      | 250 | 377 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
|     | 38      | 300 | 397 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
| 225 | 42 - 48 | 350 | 487 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 28      | 250 | 521 | 180 | 215 | 6  | 64  | M12 (n° 4) | 45°    |
| 250 | 38      | 300 | 541 | 230 | 265 | 6  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 571 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 38      | 300 | 492 | 230 | 265 | 7  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 522 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
| 280 | 55      | 400 | 522 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 38      | 300 | 584 | 230 | 265 | 7  | 84  | M12 (n° 4) | 45°    |
|     | 42 - 48 | 350 | 614 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 614 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
| 355 | 60      | 450 | 644 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 42 - 48 | 350 | 738 | 250 | 300 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 55      | 400 | 738 | 300 | 350 | 7  | 114 | M16 (n° 4) | 45°    |
|     | 60      | 450 | 768 | 350 | 400 | 7  | 144 | M16 (n° 8) | 22°30' |
|     | 65      | 550 | 771 | 450 | 500 | 7  | 147 | M16 (n° 8) | 22°30' |

(1) Motor shaft diameter.

### 12.3.1 Cooling and heating unit

On request the gear reducer can be supplied with:

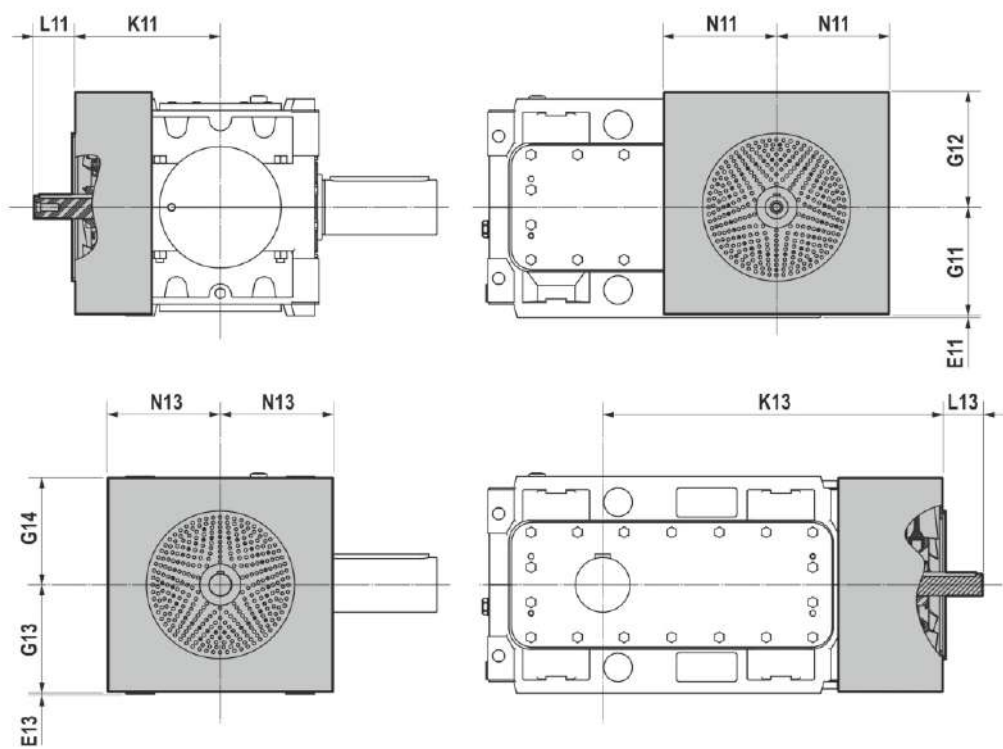
- Cooling fan;
- Cooling coil with or without valve thermostatic;
- Air-oil or water-oil cooling unit;
- Oil heater.

### 12.3.2 Lubrication and monitoring unit

On request the gear reducer can be supplied with:

- Bearings lubrication pump;
- Bearings lubrication motor pump;
- Bimetal thermal protectors;
- Pressure switch;
- Oil level sensor with float;
- Oil temperature sensor and bearing temperature sensor PT100 .

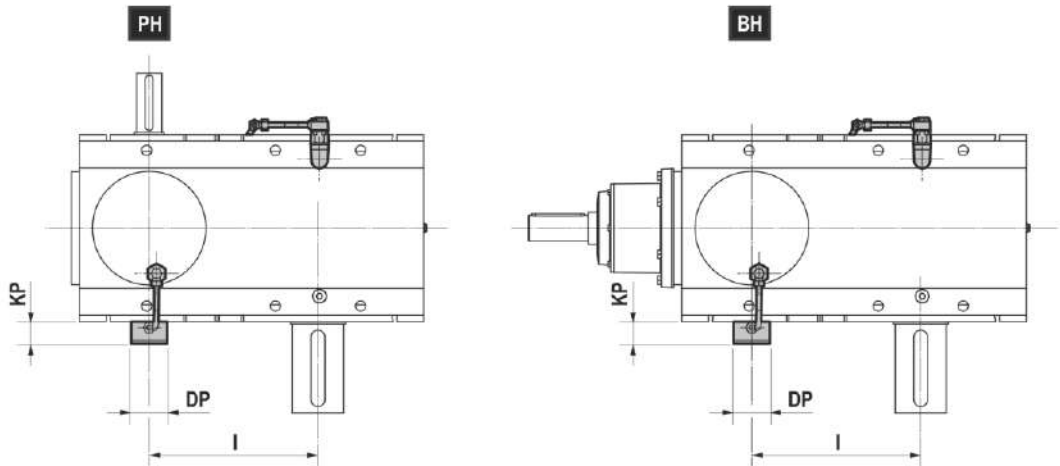
12.3.3 Cooling fan



| PH  | P1H |     |     |     |     |     | P2H |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     | E11 | G11 | G12 | L11 | K11 | N11 | E11 | G11 | G12 | L11 | K11 | N11 |
| 180 | 5   | 193 | 210 | 105 | 220 | 196 | 5   | 193 | 210 | 75  | 220 | 180 |
| 200 | 10  | 210 | 245 | 101 | 244 | 245 | 10  | 210 | 245 | 71  | 244 | 180 |
| 225 | 8   | 235 | 265 | 85  | 280 | 255 | 8   | 235 | 265 | 85  | 280 | 197 |
| 250 | 10  | 290 | 325 | 85  | 300 | 260 | 10  | 290 | 325 | 85  | 300 | 200 |
| 280 | 12  | 308 | 345 | 110 | 305 | 310 | 12  | 308 | 345 | 105 | 305 | 254 |
| 355 | 15  | 375 | 415 | 120 | 390 | 400 | 15  | 375 | 415 | 100 | 390 | 295 |

| BH  | B2H |     |     |     |      |     | B3H |     |     |     |      |     |
|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|
|     | E13 | G13 | G14 | L13 | K13  | N13 | E13 | G13 | G14 | L13 | K13  | N13 |
| 180 | 5   | 193 | 195 | 73  | 607  | 203 | 5   | 193 | 195 | 53  | 641  | 203 |
| 200 | 5   | 215 | 235 | 73  | 690  | 226 | 5   | 215 | 235 | 53  | 707  | 226 |
| 225 | 10  | 233 | 275 | 98  | 805  | 248 | 10  | 233 | 275 | 73  | 824  | 248 |
| 250 | 10  | 290 | 310 | 98  | 848  | 278 | 10  | 290 | 310 | 73  | 930  | 278 |
| 280 | 15  | 305 | 330 | 98  | 908  | 320 | 15  | 305 | 330 | 98  | 1073 | 320 |
| 355 | 20  | 370 | 400 | 123 | 1112 | 340 | 20  | 370 | 400 | 98  | 1253 | 340 |

12.3.4 Bearings lubrication pump



| PIH - B2H | DP | KP | I   |
|-----------|----|----|-----|
| 180       | 85 | 52 | 180 |
| 200       | 85 | 52 | 200 |
| 225       | 85 | 52 | 225 |
| 250       | 85 | 52 | 250 |
| 280       | 85 | 52 | 280 |
| 355       | 85 | 52 | 355 |

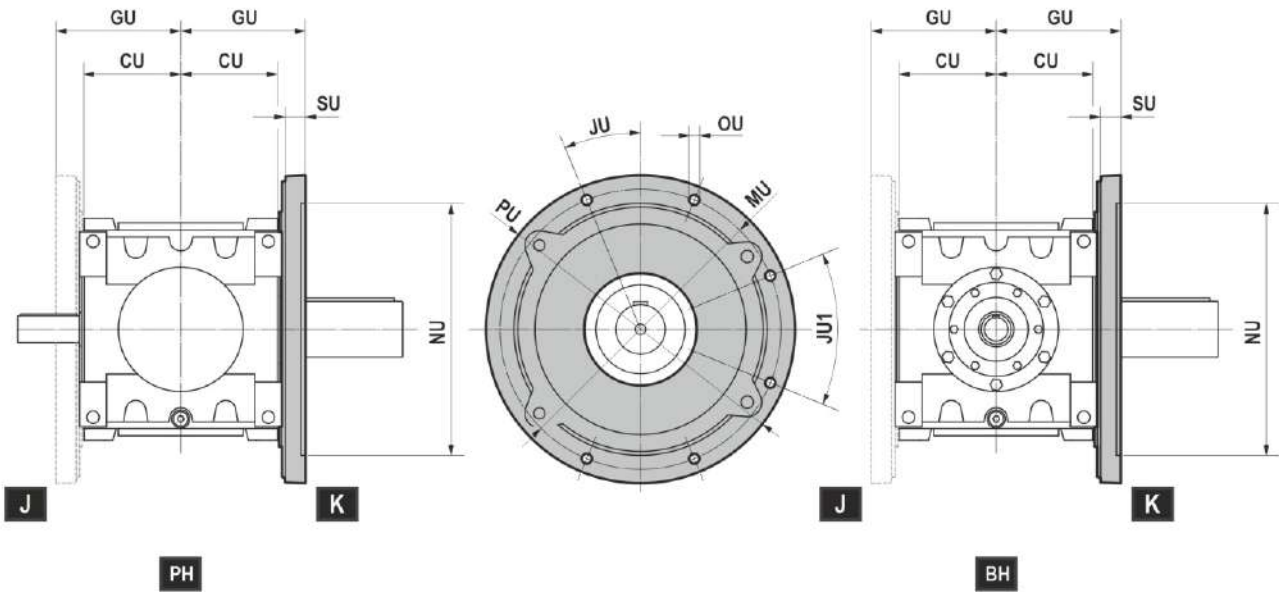
| P3H - B4H | DP | KP | I   |
|-----------|----|----|-----|
| 180       | 85 | 52 | 416 |
| 200       | 85 | 52 | 462 |
| 225       | 85 | 52 | 527 |
| 250       | 85 | 52 | 577 |
| 280       | 85 | 52 | 647 |
| 355       | 85 | 52 | 820 |

| P2H - B3H | DP | KP | I   |
|-----------|----|----|-----|
| 180       | 85 | 52 | 317 |
| 200       | 85 | 52 | 352 |
| 225       | 85 | 52 | 397 |
| 250       | 85 | 52 | 440 |
| 280       | 85 | 52 | 493 |
| 355       | 85 | 52 | 625 |

| P4H | DP | KP | I     |
|-----|----|----|-------|
| 180 | 85 | 52 | 416   |
| 200 | 85 | 52 | 462   |
| 225 | 85 | 52 | 527   |
| 250 | 85 | 52 | 577   |
| 280 | 85 | 52 | 599,5 |
| 355 | 85 | 52 | 759,1 |

12.4.1 Output flange

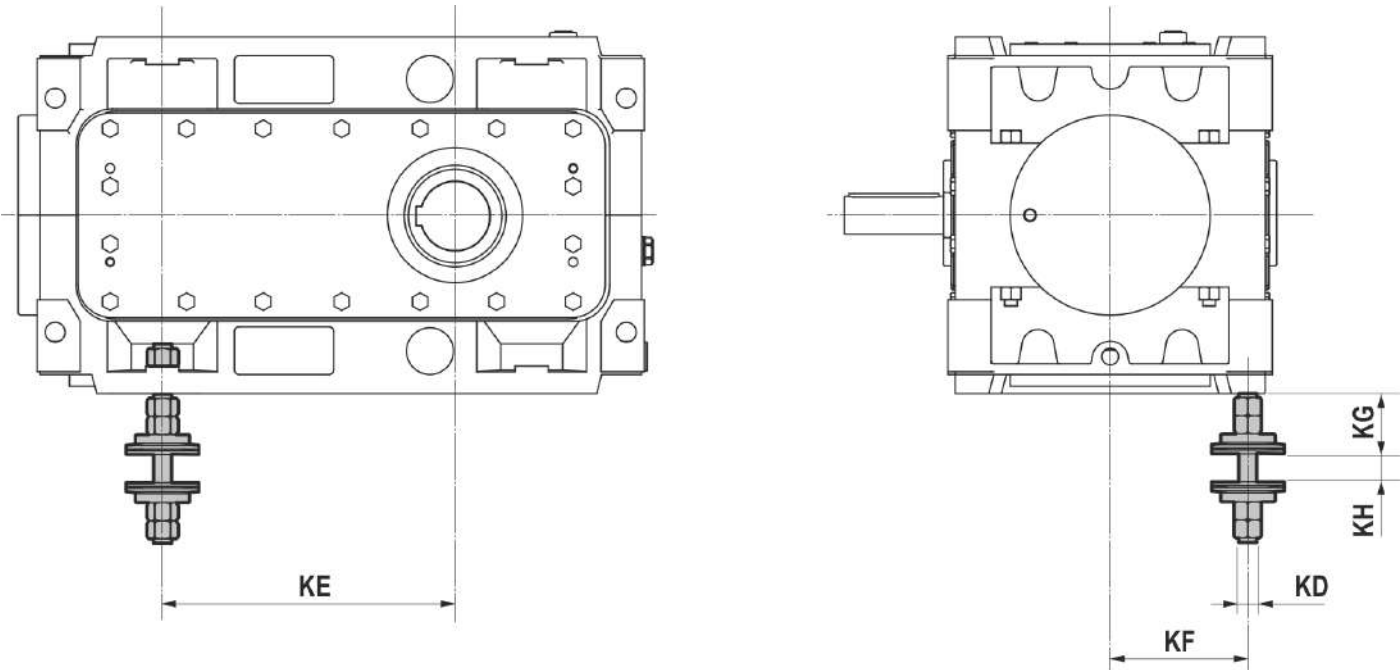
Unless otherwise specified, gear reducers are supplied with the flange in pos. K as per mounting position B3.  
For parallel gear reducers with output flange installed on the same side of the quick shaft, check for any dimensional interference.



| PH - BH | PU   | MU   | NU G6 | SU | OU         | JU     | JU1 | CU  | GU  |
|---------|------|------|-------|----|------------|--------|-----|-----|-----|
| 180     | 550  | 500  | 450   | 42 | M16 (n°18) | 22°30' | 45° | 180 | 222 |
| 200     | 600  | 550  | 500   | 50 | M20 (n°22) | 22°30' | 45° | 200 | 250 |
| 225     | 660  | 600  | 550   | 55 | M20 (n°22) | 22°30' | 45° | 220 | 275 |
| 250     | 760  | 700  | 650   | 58 | M22 (n°24) | 22°30' | 45° | 240 | 298 |
| 280     | 820  | 750  | 700   | 58 | M24 (n°26) | 22°30' | 45° | 265 | 323 |
| 355     | 1080 | 1000 | 950   | 62 | M33 (n°35) | 22°30' | 45° | 315 | 377 |

12.4.2 Reaction bolt

Use reaction bolt in the event of shaft mounting.

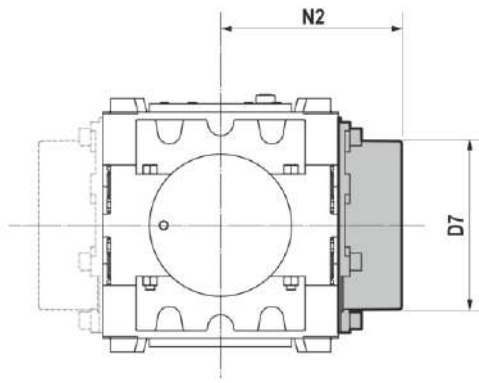


| PH - BH | KE                       |                   | KD  | KF    | KG | KH  |
|---------|--------------------------|-------------------|-----|-------|----|-----|
|         | P1H<br>P2H<br>B2H<br>B3H | P3H<br>P4H<br>B4H |     |       |    |     |
| 180     | 325                      | 407               | M20 | 153   | 56 | 104 |
| 200     | 355                      | 465               | M20 | 167,5 | 53 | 102 |
| 225     | 403                      | 518               | M22 | 183   | 60 | 104 |
| 250     | 445                      | 585               | M22 | 193   | 60 | 107 |
| 280     | 500                      | 655               | M24 | 215   | 64 | 150 |
| 355     | 625                      | 830               | M33 | 247,5 | 83 | 176 |

12.4.3 Backstop device

Gear reducers may be equipped with backstop (on the input shaft for PH, on bevel gear shaft for BH). The backstop allows shafts to rotate in one direction only. It is essential that while ordering you specify the direction of free rotation of the output shaft, according to the white or black arrow. Please see relevant paragraph "DIRECTION OF ROTATION. For PIH, P2H, B2H, please contact MOTOVARIO TECHNICAL SERVICE to verify dimensions of backstop.

12.4.4 Output shaft cover



| PH - BH | D7  | N2  |
|---------|-----|-----|
| 180     | 226 | 285 |
| 200     | 232 | 298 |
| 225     | 246 | 355 |
| 250     | 300 | 387 |
| 280     | 305 | 400 |
| 355     | 370 | 470 |

### 12.4.5 Optional seals

On request the gear reducer can be supplied with:

- Labyrinth seal with grease nipple. Recommended for dust and aggressive environments. Overall dimensions of shaft in an axial direction may differ from standard dimensions. Please contact MOTOVARIO TECHNICAL SERVICE.
- Sealing rings in FPM (FKM) fluorinated rubber. Recommended for ambient temperatures above 40 °C, in aggressive industrial environments and with high input speeds. Do not use at ambient temperatures below 10 °C.
- Dual seal. Available both on input and output shaft, in NBR rubber as well as in FPM (FKM) fluorinated rubber.

### 12.4.6 Other Accessories and Options

On request the gear reducer can be supplied with:

- Filling plug with filter;
- Special painting with C4, C5I and C5M corrosive classes according to UNI EN ISO 12944;
- NEMA motor flange adapter.

PBH

## 13.1 PH GEAR REDUCER - 1750 rpm

## P1H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7760                    | 2,04 | 711                     | 858                     |
| 8130                    | 2,18 | 697                     | 803                     |
| 8050                    | 2,55 | 590                     | 686                     |
| 8010                    | 2,83 | 529                     | 618                     |
| 8150                    | 3,12 | 488                     | 561                     |
| 7980                    | 3,60 | 414                     | 486                     |
| 7840                    | 4,00 | 366                     | 438                     |
| 7420                    | 4,38 | 317                     | 400                     |
| 6860                    | 4,92 | 261                     | 356                     |

## P1H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15200                   | 1,96 | 1450                    | 894                     |
| 17000                   | 2,24 | 1420                    | 782                     |
| 16700                   | 2,53 | 1240                    | 693                     |
| 16400                   | 2,78 | 1100                    | 630                     |
| 16100                   | 3,19 | 944                     | 549                     |
| 16100                   | 3,56 | 845                     | 491                     |
| 15500                   | 3,93 | 735                     | 445                     |
| 14800                   | 4,58 | 602                     | 382                     |
| 12600                   | 5,09 | 461                     | 344                     |

## P1H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24100                   | 1,96 | 2310                    | 894                     |
| 24200                   | 2,24 | 2020                    | 782                     |
| 24400                   | 2,48 | 1850                    | 707                     |
| 24800                   | 2,79 | 1660                    | 627                     |
| 25200                   | 3,11 | 1520                    | 564                     |
| 25700                   | 3,59 | 1340                    | 488                     |
| 24900                   | 3,93 | 1180                    | 445                     |
| 24600                   | 4,54 | 1020                    | 386                     |
| 24600                   | 5,08 | 903                     | 344                     |

## P1H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10500                   | 1,95 | 1010                    | 897                     |
| 11100                   | 2,25 | 923                     | 778                     |
| 10900                   | 2,55 | 801                     | 686                     |
| 10800                   | 2,76 | 730                     | 634                     |
| 10300                   | 3,11 | 621                     | 563                     |
| 10300                   | 3,57 | 538                     | 490                     |
| 10200                   | 4,00 | 475                     | 438                     |
| 10200                   | 4,46 | 428                     | 392                     |
| 9110                    | 4,92 | 346                     | 356                     |

## P1H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17900                   | 2,04 | 1640                    | 856                     |
| 18800                   | 2,25 | 1560                    | 778                     |
| 19500                   | 2,50 | 1460                    | 700                     |
| 19800                   | 2,82 | 1310                    | 620                     |
| 19700                   | 3,27 | 1130                    | 536                     |
| 19500                   | 3,60 | 1010                    | 486                     |
| 19700                   | 3,93 | 936                     | 445                     |
| 19500                   | 4,36 | 839                     | 402                     |
| 18000                   | 4,91 | 686                     | 356                     |

## P1H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 42000                   | 1,95 | 4020                    | 895                     |
| 44700                   | 2,29 | 3650                    | 766                     |
| 47500                   | 2,48 | 3580                    | 707                     |
| 48600                   | 2,83 | 3200                    | 618                     |
| 47800                   | 3,13 | 2860                    | 560                     |
| 48200                   | 3,56 | 2530                    | 491                     |
| 48100                   | 3,93 | 2290                    | 445                     |
| 48300                   | 4,42 | 2050                    | 396                     |
| 48400                   | 4,92 | 1840                    | 355                     |

## 13.1 PH GEAR REDUCER - 1750 rpm

## P2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9110                    | 5,66 | 307                     | 309                     |
| 9450                    | 6,53 | 276                     | 268                     |
| 9330                    | 7,26 | 245                     | 241                     |
| 8820                    | 7,96 | 212                     | 220                     |
| 9490                    | 8,57 | 211                     | 204                     |
| 9880                    | 9,90 | 190                     | 177                     |
| 9840                    | 11,0 | 171                     | 159                     |
| 9310                    | 12,1 | 147                     | 145                     |
| 9250                    | 15,0 | 117                     | 116                     |
| 9630                    | 16,7 | 110                     | 105                     |
| 9110                    | 18,3 | 95,0                    | 95,6                    |
| 8820                    | 20,6 | 81,9                    | 85,1                    |
| 8660                    | 22,8 | 72,6                    | 76,9                    |
| 9110                    | 25,0 | 69,7                    | 70,1                    |

## P2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15900                   | 5,62 | 539                     | 312                     |
| 17200                   | 6,20 | 529                     | 282                     |
| 17600                   | 7,23 | 466                     | 242                     |
| 20000                   | 8,02 | 477                     | 218                     |
| 19500                   | 8,85 | 420                     | 198                     |
| 20300                   | 10,1 | 383                     | 173                     |
| 19900                   | 11,2 | 340                     | 157                     |
| 18800                   | 13,0 | 275                     | 134                     |
| 18700                   | 14,5 | 246                     | 120                     |
| 19000                   | 16,0 | 226                     | 109                     |
| 18000                   | 18,7 | 183                     | 93,7                    |
| 17700                   | 19,7 | 172                     | 89,0                    |
| 18400                   | 22,9 | 153                     | 76,4                    |
| 15900                   | 25,5 | 119                     | 68,8                    |

## P2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35500                   | 5,82 | 1170                    | 301                     |
| 33200                   | 6,37 | 994                     | 275                     |
| 33900                   | 7,36 | 880                     | 238                     |
| 36000                   | 8,20 | 837                     | 213                     |
| 34300                   | 8,98 | 729                     | 195                     |
| 36200                   | 10,2 | 680                     | 172                     |
| 35700                   | 11,1 | 612                     | 157                     |
| 35800                   | 12,9 | 532                     | 136                     |
| 36600                   | 14,1 | 495                     | 124                     |
| 36200                   | 15,5 | 447                     | 113                     |
| 35400                   | 17,9 | 378                     | 98,0                    |
| 34300                   | 20,0 | 327                     | 87,5                    |
| 36400                   | 23,1 | 301                     | 75,7                    |
| 32600                   | 25,9 | 241                     | 67,6                    |

## P2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13600                   | 5,52 | 469                     | 317                     |
| 13000                   | 6,35 | 390                     | 276                     |
| 13800                   | 7,11 | 369                     | 246                     |
| 13200                   | 7,84 | 322                     | 223                     |
| 13900                   | 9,01 | 294                     | 194                     |
| 13700                   | 9,66 | 270                     | 181                     |
| 13900                   | 11,1 | 239                     | 158                     |
| 13600                   | 12,4 | 209                     | 141                     |
| 12900                   | 14,1 | 175                     | 125                     |
| 13600                   | 15,7 | 165                     | 111                     |
| 13200                   | 17,6 | 143                     | 99,7                    |
| 12700                   | 19,4 | 125                     | 90,4                    |
| 13000                   | 23,1 | 108                     | 75,9                    |
| 12400                   | 25,4 | 92,7                    | 68,8                    |

## P2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23500                   | 5,68 | 791                     | 308                     |
| 23500                   | 6,20 | 725                     | 282                     |
| 23200                   | 6,87 | 643                     | 255                     |
| 24500                   | 8,06 | 580                     | 217                     |
| 26100                   | 8,79 | 566                     | 199                     |
| 26500                   | 10,4 | 485                     | 168                     |
| 26700                   | 11,4 | 448                     | 154                     |
| 25300                   | 12,6 | 383                     | 139                     |
| 27600                   | 14,7 | 358                     | 119                     |
| 27800                   | 16,0 | 331                     | 109                     |
| 26300                   | 17,8 | 282                     | 98,5                    |
| 25100                   | 20,0 | 239                     | 87,5                    |
| 26300                   | 22,2 | 226                     | 78,9                    |
| 22800                   | 25,0 | 174                     | 70,0                    |

## P2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 58800                   | 5,70 | 1970                    | 307                     |
| 59800                   | 6,29 | 1820                    | 278                     |
| 61300                   | 7,07 | 1650                    | 248                     |
| 62700                   | 8,02 | 1490                    | 218                     |
| 64700                   | 8,84 | 1400                    | 198                     |
| 66600                   | 10,1 | 1260                    | 173                     |
| 67600                   | 11,1 | 1160                    | 157                     |
| 68600                   | 12,5 | 1050                    | 140                     |
| 70600                   | 14,0 | 961                     | 125                     |
| 72000                   | 15,5 | 890                     | 113                     |
| 73500                   | 17,4 | 808                     | 101                     |
| 70400                   | 19,4 | 694                     | 90,4                    |
| 73500                   | 22,8 | 615                     | 76,7                    |
| 72000                   | 25,4 | 541                     | 68,8                    |

## 13.1 PH GEAR REDUCER - 1750 rpm

## P3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10500                   | 28,8 | 71,0                    | 60,7                    |
| 10300                   | 32,0 | 62,4                    | 54,7                    |
| 9790                    | 35,1 | 54,4                    | 49,9                    |
| 11000                   | 39,8 | 53,6                    | 43,9                    |
| 10300                   | 43,6 | 45,8                    | 40,1                    |
| 11300                   | 51,1 | 43,2                    | 34,2                    |
| 10700                   | 56,0 | 37,3                    | 31,2                    |
| 10400                   | 62,9 | 32,1                    | 27,8                    |
| 10900                   | 69,7 | 30,4                    | 25,1                    |
| 10200                   | 80,4 | 24,8                    | 21,8                    |
| 11200                   | 88,1 | 24,8                    | 19,9                    |
| 10000                   | 98,9 | 19,7                    | 17,7                    |
| 9680                    | 110  | 17,1                    | 15,9                    |
| 10600                   | 121  | 17,1                    | 14,5                    |

## P3H 225

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-------|-------------------------|-------------------------|
| 17800                   | 28,6  | 121                     | 61,1                    |
| 19600                   | 31,6  | 121                     | 55,4                    |
| 20400                   | 36,2  | 110                     | 48,4                    |
| 20700                   | 39,9  | 101                     | 43,8                    |
| 19900                   | 46,5  | 83,5                    | 37,6                    |
| 20500                   | 51,9  | 77,1                    | 33,7                    |
| 21600                   | 57,3  | 73,6                    | 30,6                    |
| 20600                   | 63,6  | 63,2                    | 27,5                    |
| 22100                   | 70,2  | 61,4                    | 24,9                    |
| 22500                   | 81,5  | 53,8                    | 21,5                    |
| 20800                   | 90,5  | 44,8                    | 19,3                    |
| 22900                   | 100,0 | 44,7                    | 17,5                    |
| 22400                   | 116   | 37,5                    | 15,0                    |
| 20900                   | 129   | 31,5                    | 13,5                    |

## P3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35700                   | 29,2 | 238                     | 59,9                    |
| 39700                   | 32,0 | 242                     | 54,7                    |
| 39000                   | 37,0 | 206                     | 47,4                    |
| 40700                   | 39,7 | 200                     | 44,1                    |
| 39900                   | 45,8 | 170                     | 38,2                    |
| 38800                   | 50,3 | 150                     | 34,8                    |
| 42200                   | 55,0 | 149                     | 31,8                    |
| 41400                   | 63,6 | 127                     | 27,5                    |
| 43400                   | 71,3 | 119                     | 24,6                    |
| 42600                   | 82,3 | 101                     | 21,3                    |
| 42900                   | 87,6 | 95,5                    | 20,0                    |
| 45000                   | 98,2 | 89,3                    | 17,8                    |
| 43500                   | 113  | 74,8                    | 15,4                    |
| 40200                   | 127  | 61,7                    | 13,8                    |

## P3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14200                   | 27,8 | 99,9                    | 63,0                    |
| 15200                   | 30,6 | 96,7                    | 57,3                    |
| 14400                   | 34,2 | 82,0                    | 51,1                    |
| 15500                   | 38,6 | 78,1                    | 45,3                    |
| 14500                   | 43,3 | 65,2                    | 40,4                    |
| 15700                   | 51,5 | 59,6                    | 34,0                    |
| 14600                   | 57,7 | 49,2                    | 30,3                    |
| 13700                   | 63,1 | 42,4                    | 27,7                    |
| 15500                   | 71,2 | 42,4                    | 24,6                    |
| 14700                   | 79,8 | 35,9                    | 21,9                    |
| 15800                   | 89,0 | 34,5                    | 19,7                    |
| 14800                   | 105  | 27,5                    | 16,7                    |
| 16400                   | 117  | 27,3                    | 15,0                    |
| 13900                   | 129  | 21,0                    | 13,6                    |

## P3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25900                   | 28,0 | 180                     | 62,6                    |
| 28300                   | 30,5 | 181                     | 57,3                    |
| 28800                   | 36,2 | 155                     | 48,4                    |
| 28400                   | 39,5 | 140                     | 44,3                    |
| 28100                   | 43,8 | 125                     | 40,0                    |
| 29000                   | 50,9 | 111                     | 34,4                    |
| 28600                   | 55,6 | 100                     | 31,5                    |
| 29100                   | 63,6 | 89,3                    | 27,5                    |
| 28800                   | 69,4 | 80,7                    | 25,2                    |
| 28900                   | 82,8 | 68,0                    | 21,1                    |
| 29100                   | 91,8 | 61,9                    | 19,1                    |
| 29000                   | 103  | 54,7                    | 16,9                    |
| 29300                   | 115  | 49,8                    | 15,3                    |
| 28600                   | 129  | 43,2                    | 13,6                    |

## P3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 72700                   | 28,3 | 500                     | 61,8                    |
| 74700                   | 31,2 | 466                     | 56,0                    |
| 76700                   | 35,7 | 419                     | 49,1                    |
| 78700                   | 39,3 | 390                     | 44,5                    |
| 80700                   | 44,2 | 356                     | 39,6                    |
| 82700                   | 49,5 | 325                     | 35,3                    |
| 84700                   | 54,6 | 302                     | 32,1                    |
| 85700                   | 65,0 | 257                     | 26,9                    |
| 87600                   | 71,7 | 238                     | 24,4                    |
| 87600                   | 80,6 | 212                     | 21,7                    |
| 85700                   | 89,2 | 187                     | 19,6                    |
| 89600                   | 98,4 | 178                     | 17,8                    |
| 89600                   | 111  | 158                     | 15,8                    |
| 85300                   | 123  | 135                     | 14,2                    |

## 13.1 PH GEAR REDUCER - 1750 rpm

## P4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 10200                   | 128 | 15,9                    | 13,7                    |
| 11300                   | 142 | 15,8                    | 12,3                    |
| 11700                   | 164 | 14,2                    | 10,7                    |
| 12300                   | 179 | 13,7                    | 9,75                    |
| 10900                   | 201 | 10,8                    | 8,69                    |
| 11500                   | 225 | 10,1                    | 7,79                    |
| 11600                   | 246 | 9,38                    | 7,10                    |
| 10900                   | 277 | 7,88                    | 6,33                    |
| 11000                   | 317 | 6,90                    | 5,53                    |
| 11200                   | 353 | 6,34                    | 4,96                    |
| 12300                   | 387 | 6,33                    | 4,52                    |
| 11200                   | 435 | 5,15                    | 4,03                    |
| 11500                   | 495 | 4,62                    | 3,54                    |
| 12000                   | 552 | 4,31                    | 3,17                    |
| 13100                   | 605 | 4,30                    | 2,89                    |

## P4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 22600                   | 130 | 34,6                    | 13,4                    |
| 21700                   | 144 | 30,0                    | 12,1                    |
| 24900                   | 159 | 31,1                    | 11,0                    |
| 24700                   | 185 | 26,5                    | 9,44                    |
| 24900                   | 197 | 25,3                    | 8,90                    |
| 25000                   | 228 | 21,8                    | 7,67                    |
| 21900                   | 251 | 17,4                    | 6,96                    |
| 25100                   | 278 | 18,0                    | 6,31                    |
| 26400                   | 323 | 16,2                    | 5,41                    |
| 22100                   | 358 | 12,3                    | 4,89                    |
| 26700                   | 397 | 13,4                    | 4,41                    |
| 27200                   | 460 | 11,8                    | 3,80                    |
| 26000                   | 484 | 10,7                    | 3,61                    |
| 27900                   | 565 | 9,85                    | 3,10                    |
| 26700                   | 627 | 8,47                    | 2,79                    |

## P4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 44000                   | 129 | 67,7                    | 13,5                    |
| 40800                   | 145 | 56,1                    | 12,1                    |
| 44800                   | 155 | 57,3                    | 11,3                    |
| 44300                   | 180 | 49,1                    | 9,75                    |
| 46200                   | 201 | 45,7                    | 8,70                    |
| 44500                   | 232 | 38,2                    | 7,54                    |
| 44600                   | 247 | 35,9                    | 7,07                    |
| 46700                   | 277 | 33,5                    | 6,31                    |
| 44800                   | 320 | 27,8                    | 5,46                    |
| 46900                   | 351 | 26,6                    | 4,99                    |
| 45400                   | 405 | 22,3                    | 4,32                    |
| 47200                   | 454 | 20,7                    | 3,86                    |
| 48400                   | 483 | 20,0                    | 3,62                    |
| 47500                   | 558 | 16,9                    | 3,13                    |
| 49400                   | 625 | 15,7                    | 2,80                    |

## P4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 14800                   | 120 | 24,6                    | 14,6                    |
| 16100                   | 143 | 22,5                    | 12,3                    |
| 14900                   | 160 | 18,6                    | 11,0                    |
| 15500                   | 178 | 17,4                    | 9,85                    |
| 15500                   | 200 | 15,4                    | 8,76                    |
| 15000                   | 221 | 13,5                    | 7,92                    |
| 16900                   | 246 | 13,7                    | 7,10                    |
| 15100                   | 279 | 10,8                    | 6,27                    |
| 17000                   | 311 | 10,9                    | 5,62                    |
| 15200                   | 367 | 8,24                    | 4,77                    |
| 15400                   | 410 | 7,49                    | 4,27                    |
| 17600                   | 457 | 7,68                    | 3,83                    |
| 17000                   | 480 | 7,04                    | 3,64                    |
| 16100                   | 538 | 5,96                    | 3,25                    |
| 18300                   | 600 | 6,08                    | 2,92                    |

## P4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 29300                   | 126 | 46,3                    | 13,9                    |
| 29600                   | 147 | 40,2                    | 11,9                    |
| 29200                   | 160 | 36,3                    | 10,9                    |
| 29800                   | 183 | 32,3                    | 9,55                    |
| 29400                   | 200 | 29,2                    | 8,75                    |
| 29900                   | 219 | 27,2                    | 8,01                    |
| 29900                   | 251 | 23,8                    | 6,98                    |
| 29500                   | 274 | 21,5                    | 6,39                    |
| 30100                   | 313 | 19,1                    | 5,59                    |
| 29700                   | 342 | 17,3                    | 5,12                    |
| 30100                   | 407 | 14,7                    | 4,30                    |
| 30700                   | 452 | 13,5                    | 3,87                    |
| 31000                   | 509 | 12,1                    | 3,44                    |
| 31600                   | 564 | 11,1                    | 3,10                    |
| 35100                   | 636 | 11,0                    | 2,75                    |

## P4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 80700                   | 126 | 128                     | 13,9                    |
| 81000                   | 141 | 115                     | 12,4                    |
| 81900                   | 155 | 105                     | 11,3                    |
| 84100                   | 174 | 96,0                    | 10,0                    |
| 82400                   | 204 | 80,5                    | 8,59                    |
| 84700                   | 229 | 73,6                    | 7,64                    |
| 82000                   | 252 | 64,9                    | 6,95                    |
| 83000                   | 278 | 59,6                    | 6,31                    |
| 85200                   | 312 | 54,4                    | 5,61                    |
| 83500                   | 365 | 45,6                    | 4,80                    |
| 86700                   | 410 | 42,1                    | 4,27                    |
| 84800                   | 453 | 37,3                    | 3,86                    |
| 87100                   | 500 | 34,7                    | 3,50                    |
| 91000                   | 562 | 32,2                    | 3,11                    |
| 83400                   | 627 | 26,5                    | 2,79                    |

P1H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7920                    | 2,04 | 581                     | 686                     |
| 8300                    | 2,18 | 570                     | 642                     |
| 8220                    | 2,55 | 482                     | 549                     |
| 8180                    | 2,83 | 432                     | 495                     |
| 8320                    | 3,12 | 399                     | 449                     |
| 8150                    | 3,60 | 339                     | 389                     |
| 8000                    | 4,00 | 299                     | 350                     |
| 7580                    | 4,38 | 259                     | 320                     |
| 7010                    | 4,92 | 213                     | 285                     |

P1H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15500                   | 1,96 | 1180                    | 716                     |
| 17300                   | 2,24 | 1160                    | 626                     |
| 17100                   | 2,53 | 1010                    | 554                     |
| 16700                   | 2,78 | 899                     | 504                     |
| 16400                   | 3,19 | 772                     | 439                     |
| 16400                   | 3,56 | 690                     | 393                     |
| 15800                   | 3,93 | 601                     | 356                     |
| 15100                   | 4,58 | 492                     | 305                     |
| 12800                   | 5,09 | 376                     | 275                     |

P1H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24600                   | 1,96 | 1880                    | 716                     |
| 24700                   | 2,24 | 1650                    | 626                     |
| 24900                   | 2,48 | 1510                    | 565                     |
| 25300                   | 2,79 | 1360                    | 502                     |
| 25700                   | 3,11 | 1240                    | 451                     |
| 26200                   | 3,59 | 1090                    | 390                     |
| 25400                   | 3,93 | 966                     | 356                     |
| 25200                   | 4,54 | 829                     | 308                     |
| 25100                   | 5,08 | 737                     | 275                     |

P1H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10700                   | 1,95 | 822                     | 718                     |
| 11300                   | 2,25 | 754                     | 622                     |
| 11200                   | 2,55 | 654                     | 549                     |
| 11000                   | 2,76 | 596                     | 507                     |
| 10600                   | 3,11 | 507                     | 450                     |
| 10500                   | 3,57 | 440                     | 392                     |
| 10400                   | 4,00 | 388                     | 350                     |
| 10400                   | 4,46 | 349                     | 314                     |
| 9300                    | 4,92 | 283                     | 285                     |

P1H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18300                   | 2,04 | 1340                    | 685                     |
| 19200                   | 2,25 | 1280                    | 622                     |
| 19900                   | 2,50 | 1190                    | 560                     |
| 20200                   | 2,82 | 1070                    | 496                     |
| 20100                   | 3,27 | 919                     | 429                     |
| 20000                   | 3,60 | 829                     | 389                     |
| 20100                   | 3,93 | 765                     | 356                     |
| 19900                   | 4,36 | 685                     | 321                     |
| 18400                   | 4,91 | 560                     | 285                     |

P1H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 42900                   | 1,95 | 3280                    | 716                     |
| 45600                   | 2,29 | 2980                    | 613                     |
| 48400                   | 2,48 | 2930                    | 565                     |
| 49600                   | 2,83 | 2620                    | 494                     |
| 48800                   | 3,13 | 2340                    | 448                     |
| 49200                   | 3,56 | 2070                    | 393                     |
| 49100                   | 3,93 | 1870                    | 356                     |
| 49300                   | 4,42 | 1670                    | 317                     |
| 49400                   | 4,92 | 1500                    | 284                     |

## 13.2 PH GEAR REDUCER - 1400 rpm

## P2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9300                    | 5,66 | 251                     | 247                     |
| 9650                    | 6,53 | 226                     | 214                     |
| 9530                    | 7,26 | 200                     | 193                     |
| 9000                    | 7,96 | 173                     | 176                     |
| 9680                    | 8,57 | 172                     | 163                     |
| 10100                   | 9,90 | 156                     | 141                     |
| 10100                   | 11,0 | 140                     | 127                     |
| 9500                    | 12,1 | 120                     | 116                     |
| 9440                    | 15,0 | 95,8                    | 93,1                    |
| 9830                    | 16,7 | 89,8                    | 83,8                    |
| 9300                    | 18,3 | 77,6                    | 76,5                    |
| 9010                    | 20,6 | 66,9                    | 68,1                    |
| 8840                    | 22,8 | 59,3                    | 61,5                    |
| 9300                    | 25,0 | 56,9                    | 56,1                    |

## P2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16200                   | 5,62 | 440                     | 249                     |
| 17600                   | 6,20 | 432                     | 226                     |
| 18000                   | 7,23 | 381                     | 194                     |
| 20400                   | 8,02 | 389                     | 175                     |
| 19900                   | 8,85 | 343                     | 158                     |
| 20800                   | 10,1 | 313                     | 138                     |
| 20400                   | 11,2 | 278                     | 125                     |
| 19200                   | 13,0 | 225                     | 107                     |
| 19100                   | 14,5 | 201                     | 96,4                    |
| 19400                   | 16,0 | 184                     | 87,3                    |
| 18300                   | 18,7 | 150                     | 74,9                    |
| 18100                   | 19,7 | 140                     | 71,2                    |
| 18800                   | 22,9 | 125                     | 61,1                    |
| 16200                   | 25,5 | 97,2                    | 55,0                    |

## P2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36300                   | 5,82 | 952                     | 241                     |
| 33800                   | 6,37 | 811                     | 220                     |
| 34600                   | 7,36 | 719                     | 190                     |
| 36700                   | 8,20 | 683                     | 171                     |
| 35000                   | 8,98 | 596                     | 156                     |
| 37000                   | 10,2 | 555                     | 138                     |
| 36400                   | 11,1 | 500                     | 126                     |
| 36600                   | 12,9 | 434                     | 109                     |
| 37300                   | 14,1 | 404                     | 99,2                    |
| 36900                   | 15,5 | 365                     | 90,6                    |
| 36100                   | 17,9 | 309                     | 78,4                    |
| 35000                   | 20,0 | 267                     | 70,0                    |
| 37200                   | 23,1 | 246                     | 60,6                    |
| 33300                   | 25,9 | 196                     | 54,1                    |

## P2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13900                   | 5,52 | 383                     | 254                     |
| 13300                   | 6,35 | 319                     | 220                     |
| 14100                   | 7,11 | 302                     | 197                     |
| 13500                   | 7,84 | 263                     | 179                     |
| 14200                   | 9,01 | 240                     | 155                     |
| 13900                   | 9,66 | 220                     | 145                     |
| 14200                   | 11,1 | 195                     | 126                     |
| 13900                   | 12,4 | 171                     | 113                     |
| 13200                   | 14,1 | 143                     | 99,6                    |
| 13900                   | 15,7 | 135                     | 89,0                    |
| 13400                   | 17,6 | 117                     | 79,8                    |
| 12900                   | 19,4 | 102                     | 72,3                    |
| 13300                   | 23,1 | 88,1                    | 60,7                    |
| 12600                   | 25,4 | 75,8                    | 55,0                    |

## P2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 5,68 | 646                     | 247                     |
| 24000                   | 6,20 | 592                     | 226                     |
| 23600                   | 6,87 | 525                     | 204                     |
| 25000                   | 8,06 | 474                     | 174                     |
| 26600                   | 8,79 | 462                     | 159                     |
| 27000                   | 10,4 | 396                     | 134                     |
| 27200                   | 11,4 | 366                     | 123                     |
| 25800                   | 12,6 | 313                     | 111                     |
| 28100                   | 14,7 | 293                     | 95,4                    |
| 28300                   | 16,0 | 270                     | 87,4                    |
| 26800                   | 17,8 | 230                     | 78,8                    |
| 25600                   | 20,0 | 195                     | 70,0                    |
| 26800                   | 22,2 | 185                     | 63,1                    |
| 23300                   | 25,0 | 142                     | 56,0                    |

## P2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 60000                   | 5,70 | 1610                    | 246                     |
| 61000                   | 6,29 | 1480                    | 223                     |
| 62500                   | 7,07 | 1350                    | 198                     |
| 64000                   | 8,02 | 1220                    | 175                     |
| 66000                   | 8,84 | 1140                    | 158                     |
| 68000                   | 10,1 | 1030                    | 139                     |
| 69000                   | 11,1 | 947                     | 126                     |
| 70000                   | 12,5 | 854                     | 112                     |
| 72000                   | 14,0 | 785                     | 99,9                    |
| 73500                   | 15,5 | 726                     | 90,6                    |
| 75000                   | 17,4 | 660                     | 80,6                    |
| 71900                   | 19,4 | 567                     | 72,3                    |
| 75000                   | 22,8 | 502                     | 61,4                    |
| 73500                   | 25,4 | 441                     | 55,0                    |

## 13.2 PH GEAR REDUCER - 1400 rpm

## P3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10500                   | 28,8 | 57,0                    | 48,6                    |
| 10300                   | 32,0 | 50,2                    | 43,7                    |
| 9830                    | 35,1 | 43,7                    | 39,9                    |
| 11000                   | 39,8 | 43,1                    | 35,1                    |
| 10300                   | 43,6 | 36,8                    | 32,1                    |
| 11400                   | 51,1 | 34,7                    | 27,4                    |
| 10800                   | 56,0 | 30,0                    | 25,0                    |
| 10400                   | 62,9 | 25,8                    | 22,3                    |
| 10900                   | 69,7 | 24,4                    | 20,1                    |
| 10300                   | 80,4 | 20,0                    | 17,4                    |
| 11300                   | 88,1 | 19,9                    | 15,9                    |
| 10100                   | 98,9 | 15,8                    | 14,2                    |
| 9720                    | 110  | 13,7                    | 12,7                    |
| 10600                   | 121  | 13,7                    | 11,6                    |

## P3H 225

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-------|-------------------------|-------------------------|
| 17900                   | 28,6  | 97,5                    | 48,9                    |
| 19700                   | 31,6  | 97,2                    | 44,3                    |
| 20500                   | 36,2  | 88,4                    | 38,7                    |
| 20800                   | 39,9  | 81,2                    | 35,1                    |
| 20000                   | 46,5  | 67,0                    | 30,1                    |
| 20600                   | 51,9  | 61,9                    | 27,0                    |
| 21700                   | 57,3  | 59,1                    | 24,4                    |
| 20700                   | 63,6  | 50,7                    | 22,0                    |
| 22200                   | 70,2  | 49,3                    | 19,9                    |
| 22600                   | 81,5  | 43,2                    | 17,2                    |
| 20900                   | 90,5  | 36,0                    | 15,5                    |
| 23000                   | 100,0 | 35,9                    | 14,0                    |
| 22500                   | 116   | 30,1                    | 12,0                    |
| 21000                   | 129   | 25,3                    | 10,8                    |

## P3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35800                   | 29,2 | 191                     | 47,9                    |
| 39900                   | 32,0 | 194                     | 43,8                    |
| 39100                   | 37,0 | 165                     | 37,9                    |
| 40800                   | 39,7 | 161                     | 35,3                    |
| 40100                   | 45,8 | 136                     | 30,6                    |
| 38900                   | 50,3 | 121                     | 27,8                    |
| 42300                   | 55,0 | 120                     | 25,4                    |
| 41500                   | 63,6 | 102                     | 22,0                    |
| 43600                   | 71,3 | 95,3                    | 19,6                    |
| 42800                   | 82,3 | 81,0                    | 17,0                    |
| 43100                   | 87,6 | 76,7                    | 16,0                    |
| 45200                   | 98,2 | 71,8                    | 14,3                    |
| 43700                   | 113  | 60,1                    | 12,3                    |
| 40400                   | 127  | 49,6                    | 11,0                    |

## P3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14300                   | 27,8 | 80,2                    | 50,4                    |
| 15200                   | 30,6 | 77,7                    | 45,8                    |
| 14500                   | 34,2 | 65,9                    | 40,9                    |
| 15600                   | 38,6 | 62,8                    | 36,2                    |
| 14500                   | 43,3 | 52,4                    | 32,4                    |
| 15800                   | 51,5 | 47,9                    | 27,2                    |
| 14600                   | 57,7 | 39,5                    | 24,3                    |
| 13800                   | 63,1 | 34,1                    | 22,2                    |
| 15600                   | 71,2 | 34,0                    | 19,7                    |
| 14700                   | 79,8 | 28,8                    | 17,5                    |
| 15800                   | 89,0 | 27,7                    | 15,7                    |
| 14800                   | 105  | 22,1                    | 13,4                    |
| 16400                   | 117  | 21,9                    | 12,0                    |
| 14000                   | 129  | 16,9                    | 10,9                    |

## P3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26000                   | 28,0 | 145                     | 50,1                    |
| 28400                   | 30,5 | 145                     | 45,9                    |
| 28900                   | 36,2 | 125                     | 38,7                    |
| 28500                   | 39,5 | 113                     | 35,5                    |
| 28200                   | 43,8 | 100                     | 32,0                    |
| 29100                   | 50,9 | 89,2                    | 27,5                    |
| 28700                   | 55,6 | 80,6                    | 25,2                    |
| 29300                   | 63,6 | 71,7                    | 22,0                    |
| 28900                   | 69,4 | 64,9                    | 20,2                    |
| 29000                   | 82,8 | 54,6                    | 16,9                    |
| 29300                   | 91,8 | 49,7                    | 15,3                    |
| 29100                   | 103  | 43,9                    | 13,5                    |
| 29400                   | 115  | 40,0                    | 12,2                    |
| 28700                   | 129  | 34,7                    | 10,8                    |

## P3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 73000                   | 28,3 | 402                     | 49,4                    |
| 75000                   | 31,2 | 375                     | 44,8                    |
| 77000                   | 35,7 | 337                     | 39,3                    |
| 79000                   | 39,3 | 313                     | 35,6                    |
| 81000                   | 44,2 | 286                     | 31,7                    |
| 83000                   | 49,5 | 261                     | 28,3                    |
| 85000                   | 54,6 | 243                     | 25,6                    |
| 86000                   | 65,0 | 206                     | 21,5                    |
| 88000                   | 71,7 | 191                     | 19,5                    |
| 88000                   | 80,6 | 170                     | 17,4                    |
| 86000                   | 89,2 | 150                     | 15,7                    |
| 90000                   | 98,4 | 143                     | 14,2                    |
| 90000                   | 111  | 127                     | 12,7                    |
| 85700                   | 123  | 108                     | 11,4                    |

## 13.2 PH GEAR REDUCER - 1400 rpm

## P4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 10300                   | 128 | 12,8                    | 10,9                    |
| 11300                   | 142 | 12,7                    | 9,87                    |
| 11800                   | 164 | 11,4                    | 8,55                    |
| 12400                   | 179 | 11,0                    | 7,80                    |
| 11000                   | 201 | 8,66                    | 6,95                    |
| 11500                   | 225 | 8,15                    | 6,23                    |
| 11700                   | 246 | 7,53                    | 5,68                    |
| 11000                   | 277 | 6,33                    | 5,06                    |
| 11000                   | 317 | 5,54                    | 4,42                    |
| 11300                   | 353 | 5,09                    | 3,96                    |
| 12400                   | 387 | 5,09                    | 3,62                    |
| 11300                   | 435 | 4,14                    | 3,22                    |
| 11500                   | 495 | 3,72                    | 2,83                    |
| 12000                   | 552 | 3,47                    | 2,54                    |
| 13100                   | 605 | 3,46                    | 2,31                    |

## P4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 22700                   | 130 | 27,8                    | 10,7                    |
| 21800                   | 144 | 24,1                    | 9,71                    |
| 25000                   | 159 | 25,0                    | 8,80                    |
| 24800                   | 185 | 21,3                    | 7,55                    |
| 25000                   | 197 | 20,3                    | 7,12                    |
| 25100                   | 228 | 17,5                    | 6,13                    |
| 22000                   | 251 | 14,0                    | 5,57                    |
| 25200                   | 278 | 14,5                    | 5,04                    |
| 26500                   | 323 | 13,0                    | 4,33                    |
| 22200                   | 358 | 9,87                    | 3,91                    |
| 26800                   | 397 | 10,8                    | 3,53                    |
| 27300                   | 460 | 9,45                    | 3,04                    |
| 26100                   | 484 | 8,59                    | 2,89                    |
| 28000                   | 565 | 7,91                    | 2,48                    |
| 26800                   | 627 | 6,81                    | 2,23                    |

## P4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 44200                   | 129 | 54,4                    | 10,8                    |
| 41000                   | 145 | 45,1                    | 9,66                    |
| 44900                   | 155 | 46,1                    | 9,01                    |
| 44400                   | 180 | 39,4                    | 7,80                    |
| 46400                   | 201 | 36,7                    | 6,96                    |
| 44600                   | 232 | 30,7                    | 6,03                    |
| 44700                   | 247 | 28,8                    | 5,66                    |
| 46900                   | 277 | 26,9                    | 5,05                    |
| 45000                   | 320 | 22,4                    | 4,37                    |
| 47100                   | 351 | 21,4                    | 3,99                    |
| 45500                   | 405 | 17,9                    | 3,45                    |
| 47400                   | 454 | 16,6                    | 3,08                    |
| 48600                   | 483 | 16,0                    | 2,90                    |
| 47700                   | 558 | 13,6                    | 2,51                    |
| 49600                   | 625 | 12,6                    | 2,24                    |

## P4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 14900                   | 120 | 19,8                    | 11,7                    |
| 16200                   | 143 | 18,1                    | 9,82                    |
| 15000                   | 160 | 14,9                    | 8,77                    |
| 15600                   | 178 | 14,0                    | 7,88                    |
| 15600                   | 200 | 12,4                    | 7,00                    |
| 15100                   | 221 | 10,9                    | 6,34                    |
| 17000                   | 246 | 11,0                    | 5,68                    |
| 15200                   | 279 | 8,64                    | 5,01                    |
| 17100                   | 311 | 8,74                    | 4,49                    |
| 15200                   | 367 | 6,62                    | 3,82                    |
| 15500                   | 410 | 6,02                    | 3,42                    |
| 17700                   | 457 | 6,17                    | 3,06                    |
| 17100                   | 480 | 5,66                    | 2,91                    |
| 16200                   | 538 | 4,79                    | 2,60                    |
| 18400                   | 600 | 4,88                    | 2,33                    |

## P4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 29400                   | 126 | 37,2                    | 11,1                    |
| 29700                   | 147 | 32,3                    | 9,54                    |
| 29400                   | 160 | 29,2                    | 8,74                    |
| 29900                   | 183 | 26,0                    | 7,64                    |
| 29500                   | 200 | 23,5                    | 7,00                    |
| 30000                   | 219 | 21,8                    | 6,41                    |
| 30100                   | 251 | 19,1                    | 5,58                    |
| 29700                   | 274 | 17,3                    | 5,12                    |
| 30200                   | 313 | 15,4                    | 4,47                    |
| 29800                   | 342 | 13,9                    | 4,10                    |
| 30200                   | 407 | 11,8                    | 3,44                    |
| 30800                   | 452 | 10,9                    | 3,10                    |
| 31200                   | 509 | 9,76                    | 2,75                    |
| 31700                   | 564 | 8,96                    | 2,48                    |
| 35300                   | 636 | 8,84                    | 2,20                    |

## P4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 81000                   | 126 | 103                     | 11,1                    |
| 81400                   | 141 | 92,1                    | 9,95                    |
| 82300                   | 155 | 84,5                    | 9,02                    |
| 84400                   | 174 | 77,1                    | 8,03                    |
| 82800                   | 204 | 64,7                    | 6,87                    |
| 85000                   | 229 | 59,1                    | 6,11                    |
| 82300                   | 252 | 52,1                    | 5,56                    |
| 83300                   | 278 | 47,8                    | 5,04                    |
| 85600                   | 312 | 43,7                    | 4,49                    |
| 83800                   | 365 | 36,6                    | 3,84                    |
| 87000                   | 410 | 33,8                    | 3,42                    |
| 85200                   | 453 | 29,9                    | 3,09                    |
| 87400                   | 500 | 27,9                    | 2,80                    |
| 91300                   | 562 | 25,9                    | 2,49                    |
| 83700                   | 627 | 21,3                    | 2,23                    |

## 13.3 PH GEAR REDUCER - 1140 rpm

## P1H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8080                    | 2,04 | 482                     | 559                     |
| 8460                    | 2,18 | 473                     | 523                     |
| 8380                    | 2,55 | 400                     | 447                     |
| 8340                    | 2,83 | 359                     | 403                     |
| 8490                    | 3,12 | 331                     | 365                     |
| 8310                    | 3,60 | 281                     | 317                     |
| 8160                    | 4,00 | 248                     | 285                     |
| 7730                    | 4,38 | 215                     | 260                     |
| 7150                    | 4,92 | 177                     | 232                     |

## P1H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15800                   | 1,96 | 982                     | 583                     |
| 17700                   | 2,24 | 962                     | 509                     |
| 17400                   | 2,53 | 839                     | 451                     |
| 17000                   | 2,78 | 747                     | 410                     |
| 16800                   | 3,19 | 640                     | 358                     |
| 16800                   | 3,56 | 573                     | 320                     |
| 16100                   | 3,93 | 499                     | 290                     |
| 15400                   | 4,58 | 408                     | 249                     |
| 13100                   | 5,09 | 312                     | 224                     |

## P1H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25100                   | 1,96 | 1560                    | 583                     |
| 25200                   | 2,24 | 1370                    | 509                     |
| 25400                   | 2,48 | 1250                    | 460                     |
| 25800                   | 2,79 | 1130                    | 409                     |
| 26200                   | 3,11 | 1030                    | 367                     |
| 26800                   | 3,59 | 908                     | 318                     |
| 25900                   | 3,93 | 802                     | 290                     |
| 25700                   | 4,54 | 688                     | 251                     |
| 25600                   | 5,08 | 612                     | 224                     |

## P1H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10900                   | 1,95 | 683                     | 585                     |
| 11600                   | 2,25 | 626                     | 507                     |
| 11400                   | 2,55 | 543                     | 447                     |
| 11200                   | 2,76 | 495                     | 413                     |
| 10800                   | 3,11 | 421                     | 367                     |
| 10700                   | 3,57 | 365                     | 319                     |
| 10600                   | 4,00 | 322                     | 285                     |
| 10600                   | 4,46 | 290                     | 256                     |
| 9480                    | 4,92 | 235                     | 232                     |

## P1H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18700                   | 2,04 | 1110                    | 558                     |
| 19600                   | 2,25 | 1060                    | 507                     |
| 20300                   | 2,50 | 988                     | 456                     |
| 20600                   | 2,82 | 890                     | 404                     |
| 20500                   | 3,27 | 763                     | 349                     |
| 20300                   | 3,60 | 688                     | 317                     |
| 20500                   | 3,93 | 635                     | 290                     |
| 20300                   | 4,36 | 569                     | 262                     |
| 18800                   | 4,91 | 465                     | 232                     |

## P1H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 43800                   | 1,95 | 2730                    | 583                     |
| 46500                   | 2,29 | 2480                    | 499                     |
| 49400                   | 2,48 | 2430                    | 460                     |
| 50600                   | 2,83 | 2170                    | 402                     |
| 49800                   | 3,13 | 1940                    | 365                     |
| 50200                   | 3,56 | 1720                    | 320                     |
| 50100                   | 3,93 | 1550                    | 290                     |
| 50300                   | 4,42 | 1390                    | 258                     |
| 50300                   | 4,92 | 1250                    | 232                     |

## 13.3 PH GEAR REDUCER - 1140 rpm

## P2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9530                    | 5,66 | 209                     | 201                     |
| 9890                    | 6,53 | 188                     | 175                     |
| 9760                    | 7,26 | 167                     | 157                     |
| 9220                    | 7,96 | 144                     | 143                     |
| 9920                    | 8,57 | 144                     | 133                     |
| 10300                   | 9,90 | 130                     | 115                     |
| 10300                   | 11,0 | 116                     | 104                     |
| 9730                    | 12,1 | 100                     | 94,5                    |
| 9670                    | 15,0 | 79,9                    | 75,8                    |
| 10100                   | 16,7 | 74,9                    | 68,2                    |
| 9530                    | 18,3 | 64,7                    | 62,3                    |
| 9230                    | 20,6 | 55,8                    | 55,4                    |
| 9060                    | 22,8 | 49,5                    | 50,1                    |
| 9530                    | 25,0 | 47,5                    | 45,7                    |

## P2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16600                   | 5,62 | 367                     | 203                     |
| 18000                   | 6,20 | 360                     | 184                     |
| 18500                   | 7,23 | 318                     | 158                     |
| 20900                   | 8,02 | 325                     | 142                     |
| 20400                   | 8,85 | 286                     | 129                     |
| 21300                   | 10,1 | 261                     | 113                     |
| 20900                   | 11,2 | 232                     | 102                     |
| 19600                   | 13,0 | 187                     | 87,5                    |
| 19600                   | 14,5 | 168                     | 78,5                    |
| 19800                   | 16,0 | 154                     | 71,1                    |
| 18800                   | 18,7 | 125                     | 61,0                    |
| 18500                   | 19,7 | 117                     | 58,0                    |
| 19200                   | 22,9 | 104                     | 49,7                    |
| 16600                   | 25,5 | 81,1                    | 44,8                    |

## P2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37200                   | 5,82 | 795                     | 196                     |
| 34700                   | 6,37 | 677                     | 179                     |
| 35500                   | 7,36 | 600                     | 155                     |
| 37600                   | 8,20 | 570                     | 139                     |
| 35900                   | 8,98 | 497                     | 127                     |
| 37900                   | 10,2 | 463                     | 112                     |
| 37300                   | 11,1 | 417                     | 102                     |
| 37500                   | 12,9 | 362                     | 88,7                    |
| 38300                   | 14,1 | 337                     | 80,8                    |
| 37900                   | 15,5 | 305                     | 73,8                    |
| 37000                   | 17,9 | 258                     | 63,9                    |
| 35900                   | 20,0 | 223                     | 57,0                    |
| 38100                   | 23,1 | 205                     | 49,3                    |
| 34100                   | 25,9 | 164                     | 44,1                    |

## P2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14200                   | 5,52 | 320                     | 207                     |
| 13600                   | 6,35 | 266                     | 180                     |
| 14400                   | 7,11 | 252                     | 160                     |
| 13800                   | 7,84 | 219                     | 145                     |
| 14500                   | 9,01 | 200                     | 127                     |
| 14300                   | 9,66 | 184                     | 118                     |
| 14600                   | 11,1 | 163                     | 103                     |
| 14200                   | 12,4 | 142                     | 91,6                    |
| 13500                   | 14,1 | 119                     | 81,1                    |
| 14200                   | 15,7 | 113                     | 72,5                    |
| 13800                   | 17,6 | 97,5                    | 65,0                    |
| 13200                   | 19,4 | 85,0                    | 58,9                    |
| 13600                   | 23,1 | 73,5                    | 49,5                    |
| 12900                   | 25,4 | 63,2                    | 44,8                    |

## P2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24600                   | 5,68 | 539                     | 201                     |
| 24600                   | 6,20 | 494                     | 184                     |
| 24200                   | 6,87 | 438                     | 166                     |
| 25600                   | 8,06 | 395                     | 141                     |
| 27300                   | 8,79 | 386                     | 130                     |
| 27700                   | 10,4 | 330                     | 109                     |
| 27900                   | 11,4 | 305                     | 100                     |
| 26500                   | 12,6 | 261                     | 90,4                    |
| 28800                   | 14,7 | 244                     | 77,7                    |
| 29000                   | 16,0 | 225                     | 71,2                    |
| 27500                   | 17,8 | 192                     | 64,2                    |
| 26200                   | 20,0 | 163                     | 57,0                    |
| 27500                   | 22,2 | 154                     | 51,4                    |
| 23900                   | 25,0 | 119                     | 45,6                    |

## P2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 61500                   | 5,70 | 1340                    | 200                     |
| 62500                   | 6,29 | 1240                    | 181                     |
| 64100                   | 7,07 | 1130                    | 161                     |
| 65600                   | 8,02 | 1020                    | 142                     |
| 67700                   | 8,84 | 952                     | 129                     |
| 69700                   | 10,1 | 859                     | 113                     |
| 70700                   | 11,1 | 790                     | 102                     |
| 71800                   | 12,5 | 713                     | 91,1                    |
| 73800                   | 14,0 | 655                     | 81,4                    |
| 75300                   | 15,5 | 606                     | 73,8                    |
| 76900                   | 17,4 | 551                     | 65,6                    |
| 73600                   | 19,4 | 473                     | 58,9                    |
| 76900                   | 22,8 | 419                     | 50,0                    |
| 75300                   | 25,4 | 368                     | 44,8                    |

## 13.3 PH GEAR REDUCER - 1140 rpm

## P3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10600                   | 28,8 | 46,7                    | 39,6                    |
| 10400                   | 32,0 | 41,0                    | 35,6                    |
| 9870                    | 35,1 | 35,7                    | 32,5                    |
| 11100                   | 39,8 | 35,2                    | 28,6                    |
| 10400                   | 43,6 | 30,1                    | 26,1                    |
| 11400                   | 51,1 | 28,4                    | 22,3                    |
| 10800                   | 56,0 | 24,5                    | 20,4                    |
| 10500                   | 62,9 | 21,1                    | 18,1                    |
| 11000                   | 69,7 | 20,0                    | 16,4                    |
| 10300                   | 80,4 | 16,3                    | 14,2                    |
| 11300                   | 88,1 | 16,3                    | 12,9                    |
| 10100                   | 98,9 | 13,0                    | 11,5                    |
| 9760                    | 110  | 11,2                    | 10,3                    |
| 10700                   | 121  | 11,2                    | 9,43                    |

## P3H 225

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-------|-------------------------|-------------------------|
| 18000                   | 28,6  | 79,8                    | 39,8                    |
| 19800                   | 31,6  | 79,5                    | 36,1                    |
| 20600                   | 36,2  | 72,3                    | 31,5                    |
| 20900                   | 39,9  | 66,5                    | 28,6                    |
| 20100                   | 46,5  | 54,9                    | 24,5                    |
| 20700                   | 51,9  | 50,7                    | 22,0                    |
| 21800                   | 57,3  | 48,3                    | 19,9                    |
| 20800                   | 63,6  | 41,5                    | 17,9                    |
| 22300                   | 70,2  | 40,3                    | 16,2                    |
| 22700                   | 81,5  | 35,4                    | 14,0                    |
| 21000                   | 90,5  | 29,5                    | 12,6                    |
| 23100                   | 100,0 | 29,4                    | 11,4                    |
| 22600                   | 116   | 24,6                    | 9,79                    |
| 21100                   | 129   | 20,7                    | 8,81                    |

## P3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36000                   | 29,2 | 156                     | 39,0                    |
| 40100                   | 32,0 | 159                     | 35,6                    |
| 39300                   | 37,0 | 135                     | 30,8                    |
| 41000                   | 39,7 | 131                     | 28,7                    |
| 40300                   | 45,8 | 112                     | 24,9                    |
| 39100                   | 50,3 | 98,8                    | 22,7                    |
| 42600                   | 55,0 | 98,2                    | 20,7                    |
| 41700                   | 63,6 | 83,3                    | 17,9                    |
| 43800                   | 71,3 | 78,0                    | 16,0                    |
| 43000                   | 82,3 | 66,3                    | 13,8                    |
| 43300                   | 87,6 | 62,8                    | 13,0                    |
| 45400                   | 98,2 | 58,7                    | 11,6                    |
| 43900                   | 113  | 49,2                    | 10,1                    |
| 40600                   | 127  | 40,6                    | 8,97                    |

## P3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14400                   | 27,8 | 65,6                    | 41,1                    |
| 15300                   | 30,6 | 63,6                    | 37,3                    |
| 14500                   | 34,2 | 53,9                    | 33,3                    |
| 15600                   | 38,6 | 51,3                    | 29,5                    |
| 14600                   | 43,3 | 42,8                    | 26,3                    |
| 15900                   | 51,5 | 39,2                    | 22,1                    |
| 14700                   | 57,7 | 32,4                    | 19,8                    |
| 13900                   | 63,1 | 27,9                    | 18,1                    |
| 15600                   | 71,2 | 27,8                    | 16,0                    |
| 14800                   | 79,8 | 23,6                    | 14,3                    |
| 15900                   | 89,0 | 22,7                    | 12,8                    |
| 14900                   | 105  | 18,1                    | 10,9                    |
| 16500                   | 117  | 17,9                    | 9,75                    |
| 14000                   | 129  | 13,8                    | 8,84                    |

## P3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26100                   | 28,0 | 119                     | 40,8                    |
| 28500                   | 30,5 | 119                     | 37,4                    |
| 29100                   | 36,2 | 102                     | 31,5                    |
| 28700                   | 39,5 | 92,3                    | 28,9                    |
| 28300                   | 43,8 | 82,2                    | 26,0                    |
| 29300                   | 50,9 | 73,0                    | 22,4                    |
| 28900                   | 55,6 | 66,0                    | 20,5                    |
| 29400                   | 63,6 | 58,7                    | 17,9                    |
| 29000                   | 69,4 | 53,1                    | 16,4                    |
| 29100                   | 82,8 | 44,7                    | 13,8                    |
| 29400                   | 91,8 | 40,7                    | 12,4                    |
| 29200                   | 103  | 35,9                    | 11,0                    |
| 29500                   | 115  | 32,7                    | 9,95                    |
| 28900                   | 129  | 28,4                    | 8,83                    |

## P3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 73400                   | 28,3 | 329                     | 40,3                    |
| 75400                   | 31,2 | 306                     | 36,5                    |
| 77400                   | 35,7 | 276                     | 32,0                    |
| 79400                   | 39,3 | 256                     | 29,0                    |
| 81400                   | 44,2 | 234                     | 25,8                    |
| 83400                   | 49,5 | 214                     | 23,0                    |
| 85400                   | 54,6 | 199                     | 20,9                    |
| 86400                   | 65,0 | 169                     | 17,5                    |
| 88400                   | 71,7 | 157                     | 15,9                    |
| 88400                   | 80,6 | 139                     | 14,1                    |
| 86400                   | 89,2 | 123                     | 12,8                    |
| 90500                   | 98,4 | 117                     | 11,6                    |
| 90500                   | 111  | 104                     | 10,3                    |
| 86100                   | 123  | 88,7                    | 9,25                    |

## 13.3 PH GEAR REDUCER - 1140 rpm

## P4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 10300                   | 128 | 10,4                    | 8,90                    |
| 11400                   | 142 | 10,4                    | 8,04                    |
| 11800                   | 164 | 9,35                    | 6,96                    |
| 12400                   | 179 | 8,99                    | 6,35                    |
| 11000                   | 201 | 7,08                    | 5,66                    |
| 11600                   | 225 | 6,67                    | 5,07                    |
| 11700                   | 246 | 6,16                    | 4,63                    |
| 11000                   | 277 | 5,17                    | 4,12                    |
| 11100                   | 317 | 4,53                    | 3,60                    |
| 11300                   | 353 | 4,17                    | 3,23                    |
| 12400                   | 387 | 4,16                    | 2,95                    |
| 11300                   | 435 | 3,39                    | 2,62                    |
| 11600                   | 495 | 3,04                    | 2,31                    |
| 12100                   | 552 | 2,83                    | 2,07                    |
| 13200                   | 605 | 2,83                    | 1,89                    |

## P4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 22800                   | 130 | 22,7                    | 8,75                    |
| 21900                   | 144 | 19,7                    | 7,91                    |
| 25100                   | 159 | 20,4                    | 7,16                    |
| 24900                   | 185 | 17,4                    | 6,15                    |
| 25200                   | 197 | 16,6                    | 5,80                    |
| 25200                   | 228 | 14,3                    | 4,99                    |
| 22100                   | 251 | 11,4                    | 4,54                    |
| 25300                   | 278 | 11,8                    | 4,11                    |
| 26600                   | 323 | 10,7                    | 3,52                    |
| 22300                   | 358 | 8,07                    | 3,19                    |
| 26900                   | 397 | 8,80                    | 2,87                    |
| 27400                   | 460 | 7,73                    | 2,48                    |
| 26200                   | 484 | 7,02                    | 2,35                    |
| 28200                   | 565 | 6,47                    | 2,02                    |
| 26900                   | 627 | 5,57                    | 1,82                    |

## P4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 44300                   | 129 | 44,5                    | 8,81                    |
| 41200                   | 145 | 36,9                    | 7,87                    |
| 45100                   | 155 | 37,7                    | 7,33                    |
| 44600                   | 180 | 32,3                    | 6,35                    |
| 46600                   | 201 | 30,0                    | 5,67                    |
| 44800                   | 232 | 25,1                    | 4,91                    |
| 44900                   | 247 | 23,6                    | 4,61                    |
| 47100                   | 277 | 22,0                    | 4,11                    |
| 45200                   | 320 | 18,3                    | 3,56                    |
| 47300                   | 351 | 17,5                    | 3,25                    |
| 45700                   | 405 | 14,6                    | 2,81                    |
| 47600                   | 454 | 13,6                    | 2,51                    |
| 48900                   | 483 | 13,1                    | 2,36                    |
| 47900                   | 558 | 11,1                    | 2,04                    |
| 49800                   | 625 | 10,3                    | 1,82                    |

## P4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 14900                   | 120 | 16,2                    | 9,52                    |
| 16200                   | 143 | 14,8                    | 7,99                    |
| 15000                   | 160 | 12,2                    | 7,14                    |
| 15700                   | 178 | 11,4                    | 6,42                    |
| 15600                   | 200 | 10,1                    | 5,70                    |
| 15100                   | 221 | 8,88                    | 5,16                    |
| 17100                   | 246 | 8,99                    | 4,63                    |
| 15200                   | 279 | 7,07                    | 4,08                    |
| 17200                   | 311 | 7,15                    | 3,66                    |
| 15300                   | 367 | 5,41                    | 3,11                    |
| 15500                   | 410 | 4,92                    | 2,78                    |
| 17800                   | 457 | 5,04                    | 2,50                    |
| 17100                   | 480 | 4,63                    | 2,37                    |
| 16300                   | 538 | 3,92                    | 2,12                    |
| 18500                   | 600 | 3,99                    | 1,90                    |

## P4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 29600                   | 126 | 30,4                    | 9,04                    |
| 29900                   | 147 | 26,4                    | 7,76                    |
| 29500                   | 160 | 23,9                    | 7,12                    |
| 30000                   | 183 | 21,2                    | 6,22                    |
| 29600                   | 200 | 19,2                    | 5,70                    |
| 30100                   | 219 | 17,9                    | 5,22                    |
| 30200                   | 251 | 15,6                    | 4,55                    |
| 29800                   | 274 | 14,1                    | 4,17                    |
| 30300                   | 313 | 12,6                    | 3,64                    |
| 29900                   | 342 | 11,4                    | 3,34                    |
| 30300                   | 407 | 9,66                    | 2,80                    |
| 30900                   | 452 | 8,88                    | 2,52                    |
| 31300                   | 509 | 7,98                    | 2,24                    |
| 31900                   | 564 | 7,32                    | 2,02                    |
| 35400                   | 636 | 7,23                    | 1,79                    |

## P4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 81400                   | 126 | 84,0                    | 9,07                    |
| 81700                   | 141 | 75,3                    | 8,10                    |
| 82600                   | 155 | 69,1                    | 7,35                    |
| 84800                   | 174 | 63,1                    | 6,53                    |
| 83100                   | 204 | 52,9                    | 5,59                    |
| 85400                   | 229 | 48,3                    | 4,97                    |
| 82700                   | 252 | 42,6                    | 4,53                    |
| 83700                   | 278 | 39,1                    | 4,11                    |
| 86000                   | 312 | 35,7                    | 3,65                    |
| 84200                   | 365 | 30,0                    | 3,13                    |
| 87400                   | 410 | 27,7                    | 2,78                    |
| 85600                   | 453 | 24,5                    | 2,51                    |
| 87800                   | 500 | 22,8                    | 2,28                    |
| 91700                   | 562 | 21,2                    | 2,03                    |
| 84100                   | 627 | 17,4                    | 1,82                    |

## 13.4 PH GEAR REDUCER - 900 rpm

## P1H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8240                    | 2,04 | 388                     | 441                     |
| 8620                    | 2,18 | 380                     | 413                     |
| 8540                    | 2,55 | 322                     | 353                     |
| 8500                    | 2,83 | 289                     | 318                     |
| 8650                    | 3,12 | 267                     | 288                     |
| 8470                    | 3,60 | 226                     | 250                     |
| 8320                    | 4,00 | 200                     | 225                     |
| 7880                    | 4,38 | 173                     | 205                     |
| 7290                    | 4,92 | 142                     | 183                     |

## P1H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16100                   | 1,96 | 791                     | 460                     |
| 18000                   | 2,24 | 774                     | 402                     |
| 17800                   | 2,53 | 676                     | 356                     |
| 17400                   | 2,78 | 601                     | 324                     |
| 17100                   | 3,19 | 516                     | 282                     |
| 17100                   | 3,56 | 461                     | 253                     |
| 16400                   | 3,93 | 401                     | 229                     |
| 15700                   | 4,58 | 329                     | 196                     |
| 13300                   | 5,09 | 251                     | 177                     |

## P1H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25600                   | 1,96 | 1260                    | 460                     |
| 25700                   | 2,24 | 1100                    | 402                     |
| 25900                   | 2,48 | 1010                    | 363                     |
| 26300                   | 2,79 | 907                     | 323                     |
| 26700                   | 3,11 | 828                     | 290                     |
| 27300                   | 3,59 | 731                     | 251                     |
| 26400                   | 3,93 | 645                     | 229                     |
| 26200                   | 4,54 | 554                     | 198                     |
| 26100                   | 5,08 | 493                     | 177                     |

## P1H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11100                   | 1,95 | 549                     | 462                     |
| 11800                   | 2,25 | 504                     | 400                     |
| 11600                   | 2,55 | 437                     | 353                     |
| 11400                   | 2,76 | 398                     | 326                     |
| 11000                   | 3,11 | 339                     | 289                     |
| 10900                   | 3,57 | 294                     | 252                     |
| 10800                   | 4,00 | 259                     | 225                     |
| 10800                   | 4,46 | 234                     | 202                     |
| 9670                    | 4,92 | 189                     | 183                     |

## P1H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 2,04 | 895                     | 440                     |
| 20000                   | 2,25 | 853                     | 400                     |
| 20700                   | 2,50 | 795                     | 360                     |
| 21100                   | 2,82 | 717                     | 319                     |
| 20900                   | 3,27 | 614                     | 276                     |
| 20700                   | 3,60 | 554                     | 250                     |
| 20900                   | 3,93 | 511                     | 229                     |
| 20700                   | 4,36 | 458                     | 207                     |
| 19100                   | 4,91 | 375                     | 183                     |

## P1H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 44600                   | 1,95 | 2190                    | 460                     |
| 47400                   | 2,29 | 1990                    | 394                     |
| 50400                   | 2,48 | 1960                    | 363                     |
| 51500                   | 2,83 | 1750                    | 318                     |
| 50800                   | 3,13 | 1560                    | 288                     |
| 51200                   | 3,56 | 1380                    | 253                     |
| 51000                   | 3,93 | 1250                    | 229                     |
| 51300                   | 4,42 | 1120                    | 204                     |
| 51300                   | 4,92 | 1000                    | 183                     |

## 13.4 PH GEAR REDUCER - 900 rpm

## P2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9670                    | 5,66 | 168                     | 159                     |
| 10000                   | 6,53 | 151                     | 138                     |
| 9910                    | 7,26 | 134                     | 124                     |
| 9360                    | 7,96 | 115                     | 113                     |
| 10100                   | 8,57 | 115                     | 105                     |
| 10500                   | 9,90 | 104                     | 90,9                    |
| 10500                   | 11,0 | 93,3                    | 81,8                    |
| 9880                    | 12,1 | 80,4                    | 74,6                    |
| 9810                    | 15,0 | 64,0                    | 59,8                    |
| 10200                   | 16,7 | 60,0                    | 53,9                    |
| 9670                    | 18,3 | 51,8                    | 49,2                    |
| 9370                    | 20,6 | 44,7                    | 43,8                    |
| 9190                    | 22,8 | 39,6                    | 39,5                    |
| 9670                    | 25,0 | 38,0                    | 36,1                    |

## P2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16800                   | 5,62 | 294                     | 160                     |
| 18300                   | 6,20 | 289                     | 145                     |
| 18700                   | 7,23 | 254                     | 125                     |
| 21200                   | 8,02 | 260                     | 112                     |
| 20700                   | 8,85 | 229                     | 102                     |
| 21600                   | 10,1 | 209                     | 88,9                    |
| 21200                   | 11,2 | 186                     | 80,5                    |
| 19900                   | 13,0 | 150                     | 69,1                    |
| 19900                   | 14,5 | 134                     | 62,0                    |
| 20100                   | 16,0 | 123                     | 56,1                    |
| 19100                   | 18,7 | 100                     | 48,2                    |
| 18800                   | 19,7 | 93,9                    | 45,8                    |
| 19500                   | 22,9 | 83,6                    | 39,3                    |
| 16800                   | 25,5 | 64,9                    | 35,4                    |

## P2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37700                   | 5,82 | 637                     | 155                     |
| 35200                   | 6,37 | 542                     | 141                     |
| 36000                   | 7,36 | 480                     | 122                     |
| 38200                   | 8,20 | 457                     | 110                     |
| 36400                   | 8,98 | 398                     | 100                     |
| 38400                   | 10,2 | 371                     | 88,5                    |
| 37900                   | 11,1 | 334                     | 80,9                    |
| 38000                   | 12,9 | 290                     | 70,0                    |
| 38800                   | 14,1 | 270                     | 63,8                    |
| 38400                   | 15,5 | 244                     | 58,2                    |
| 37600                   | 17,9 | 206                     | 50,4                    |
| 36400                   | 20,0 | 179                     | 45,0                    |
| 38700                   | 23,1 | 164                     | 39,0                    |
| 34600                   | 25,9 | 131                     | 34,8                    |

## P2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14400                   | 5,52 | 256                     | 163                     |
| 13800                   | 6,35 | 213                     | 142                     |
| 14600                   | 7,11 | 202                     | 127                     |
| 14000                   | 7,84 | 176                     | 115                     |
| 14700                   | 9,01 | 160                     | 99,9                    |
| 14500                   | 9,66 | 147                     | 93,2                    |
| 14800                   | 11,1 | 130                     | 81,0                    |
| 14500                   | 12,4 | 114                     | 72,3                    |
| 13700                   | 14,1 | 95,5                    | 64,1                    |
| 14500                   | 15,7 | 90,2                    | 57,2                    |
| 14000                   | 17,6 | 78,1                    | 51,3                    |
| 13400                   | 19,4 | 68,0                    | 46,5                    |
| 13800                   | 23,1 | 58,9                    | 39,0                    |
| 13100                   | 25,4 | 50,6                    | 35,4                    |

## P2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25000                   | 5,68 | 432                     | 159                     |
| 25000                   | 6,20 | 396                     | 145                     |
| 24600                   | 6,87 | 351                     | 131                     |
| 26000                   | 8,06 | 317                     | 112                     |
| 27700                   | 8,79 | 309                     | 102                     |
| 28100                   | 10,4 | 265                     | 86,4                    |
| 28300                   | 11,4 | 244                     | 79,1                    |
| 26900                   | 12,6 | 209                     | 71,4                    |
| 29300                   | 14,7 | 196                     | 61,3                    |
| 29500                   | 16,0 | 181                     | 56,2                    |
| 27900                   | 17,8 | 154                     | 50,7                    |
| 26600                   | 20,0 | 131                     | 45,0                    |
| 27900                   | 22,2 | 123                     | 40,6                    |
| 24200                   | 25,0 | 95,1                    | 36,0                    |

## P2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 62400                   | 5,70 | 1070                    | 158                     |
| 63400                   | 6,29 | 991                     | 143                     |
| 65000                   | 7,07 | 903                     | 127                     |
| 66600                   | 8,02 | 815                     | 112                     |
| 68600                   | 8,84 | 762                     | 102                     |
| 70700                   | 10,1 | 688                     | 89,2                    |
| 71800                   | 11,1 | 633                     | 80,9                    |
| 72800                   | 12,5 | 571                     | 71,9                    |
| 74900                   | 14,0 | 525                     | 64,2                    |
| 76400                   | 15,5 | 486                     | 58,2                    |
| 78000                   | 17,4 | 441                     | 51,8                    |
| 74700                   | 19,4 | 379                     | 46,5                    |
| 78000                   | 22,8 | 336                     | 39,4                    |
| 76400                   | 25,4 | 295                     | 35,4                    |

## 13.4 PH GEAR REDUCER - 900 rpm

## P3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10600                   | 28,8 | 37,0                    | 31,2                    |
| 10400                   | 32,0 | 32,5                    | 28,1                    |
| 9910                    | 35,1 | 28,3                    | 25,6                    |
| 11100                   | 39,8 | 27,9                    | 22,6                    |
| 10400                   | 43,6 | 23,9                    | 20,6                    |
| 11500                   | 51,1 | 22,5                    | 17,6                    |
| 10900                   | 56,0 | 19,4                    | 16,1                    |
| 10500                   | 62,9 | 16,7                    | 14,3                    |
| 11000                   | 69,7 | 15,8                    | 12,9                    |
| 10400                   | 80,4 | 12,9                    | 11,2                    |
| 11400                   | 88,1 | 12,9                    | 10,2                    |
| 10100                   | 98,9 | 10,3                    | 9,10                    |
| 9800                    | 110  | 8,90                    | 8,16                    |
| 10700                   | 121  | 8,89                    | 7,44                    |

## P3H 225

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-------|-------------------------|-------------------------|
| 18100                   | 28,6  | 63,2                    | 31,4                    |
| 19900                   | 31,6  | 63,0                    | 28,5                    |
| 20700                   | 36,2  | 57,3                    | 24,9                    |
| 21000                   | 39,9  | 52,7                    | 22,5                    |
| 20200                   | 46,5  | 43,5                    | 19,3                    |
| 20800                   | 51,9  | 40,2                    | 17,4                    |
| 21900                   | 57,3  | 38,3                    | 15,7                    |
| 20900                   | 63,6  | 32,9                    | 14,1                    |
| 22400                   | 70,2  | 32,0                    | 12,8                    |
| 22800                   | 81,5  | 28,0                    | 11,0                    |
| 21100                   | 90,5  | 23,3                    | 9,94                    |
| 23200                   | 100,0 | 23,3                    | 9,00                    |
| 22700                   | 116   | 19,5                    | 7,73                    |
| 21200                   | 129   | 16,4                    | 6,96                    |

## P3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36100                   | 29,2 | 124                     | 30,8                    |
| 40200                   | 32,0 | 126                     | 28,1                    |
| 39500                   | 37,0 | 107                     | 24,4                    |
| 41200                   | 39,7 | 104                     | 22,7                    |
| 40400                   | 45,8 | 88,4                    | 19,6                    |
| 39300                   | 50,3 | 78,3                    | 17,9                    |
| 42700                   | 55,0 | 77,8                    | 16,3                    |
| 41900                   | 63,6 | 66,1                    | 14,2                    |
| 44000                   | 71,3 | 61,8                    | 12,6                    |
| 43100                   | 82,3 | 52,5                    | 10,9                    |
| 43500                   | 87,6 | 49,7                    | 10,3                    |
| 45600                   | 98,2 | 46,5                    | 9,17                    |
| 44100                   | 113  | 39,0                    | 7,93                    |
| 40700                   | 127  | 32,1                    | 7,08                    |

## P3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14400                   | 27,8 | 52,0                    | 32,4                    |
| 15400                   | 30,6 | 50,4                    | 29,5                    |
| 14600                   | 34,2 | 42,7                    | 26,3                    |
| 15700                   | 38,6 | 40,7                    | 23,3                    |
| 14700                   | 43,3 | 34,0                    | 20,8                    |
| 16000                   | 51,5 | 31,0                    | 17,5                    |
| 14800                   | 57,7 | 25,7                    | 15,6                    |
| 13900                   | 63,1 | 22,1                    | 14,3                    |
| 15700                   | 71,2 | 22,1                    | 12,6                    |
| 14900                   | 79,8 | 18,7                    | 11,3                    |
| 16000                   | 89,0 | 18,0                    | 10,1                    |
| 15000                   | 105  | 14,3                    | 8,59                    |
| 16600                   | 117  | 14,2                    | 7,70                    |
| 14100                   | 129  | 11,0                    | 6,98                    |

## P3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26200                   | 28,0 | 94,0                    | 32,2                    |
| 28600                   | 30,5 | 94,1                    | 29,5                    |
| 29200                   | 36,2 | 80,9                    | 24,9                    |
| 28800                   | 39,5 | 73,1                    | 22,8                    |
| 28500                   | 43,8 | 65,2                    | 20,6                    |
| 29400                   | 50,9 | 57,8                    | 17,7                    |
| 29000                   | 55,6 | 52,3                    | 16,2                    |
| 29500                   | 63,6 | 46,5                    | 14,1                    |
| 29100                   | 69,4 | 42,1                    | 13,0                    |
| 29200                   | 82,8 | 35,4                    | 10,9                    |
| 29500                   | 91,8 | 32,2                    | 9,81                    |
| 29400                   | 103  | 28,5                    | 8,71                    |
| 29600                   | 115  | 25,9                    | 7,85                    |
| 29000                   | 129  | 22,5                    | 6,97                    |

## P3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 73700                   | 28,3 | 261                     | 31,8                    |
| 75700                   | 31,2 | 243                     | 28,8                    |
| 77700                   | 35,7 | 218                     | 25,2                    |
| 79700                   | 39,3 | 203                     | 22,9                    |
| 81700                   | 44,2 | 185                     | 20,4                    |
| 83700                   | 49,5 | 170                     | 18,2                    |
| 85800                   | 54,6 | 157                     | 16,5                    |
| 86800                   | 65,0 | 134                     | 13,8                    |
| 88800                   | 71,7 | 124                     | 12,5                    |
| 88800                   | 80,6 | 110                     | 11,2                    |
| 86800                   | 89,2 | 97,5                    | 10,1                    |
| 90800                   | 98,4 | 92,6                    | 9,15                    |
| 90800                   | 111  | 82,3                    | 8,14                    |
| 86400                   | 123  | 70,3                    | 7,30                    |

## 13.4 PH GEAR REDUCER - 900 rpm

## P4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 10400                   | 128 | 8,28                    | 7,03                    |
| 11400                   | 142 | 8,22                    | 6,34                    |
| 11800                   | 164 | 7,41                    | 5,50                    |
| 12500                   | 179 | 7,12                    | 5,02                    |
| 11000                   | 201 | 5,61                    | 4,47                    |
| 11600                   | 225 | 5,28                    | 4,00                    |
| 11700                   | 246 | 4,88                    | 3,65                    |
| 11100                   | 277 | 4,10                    | 3,25                    |
| 11100                   | 317 | 3,59                    | 2,84                    |
| 11400                   | 353 | 3,30                    | 2,55                    |
| 12500                   | 387 | 3,30                    | 2,33                    |
| 11400                   | 435 | 2,68                    | 2,07                    |
| 11600                   | 495 | 2,41                    | 1,82                    |
| 12100                   | 552 | 2,25                    | 1,63                    |
| 13200                   | 605 | 2,24                    | 1,49                    |

## P4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 22900                   | 130 | 18,0                    | 6,91                    |
| 22000                   | 144 | 15,6                    | 6,25                    |
| 25200                   | 159 | 16,2                    | 5,66                    |
| 25000                   | 185 | 13,8                    | 4,85                    |
| 25300                   | 197 | 13,2                    | 4,58                    |
| 25300                   | 228 | 11,4                    | 3,94                    |
| 22200                   | 251 | 9,04                    | 3,58                    |
| 25400                   | 278 | 9,38                    | 3,24                    |
| 26700                   | 323 | 8,46                    | 2,78                    |
| 22300                   | 358 | 6,40                    | 2,52                    |
| 27000                   | 397 | 6,97                    | 2,27                    |
| 27500                   | 460 | 6,12                    | 1,96                    |
| 26300                   | 484 | 5,57                    | 1,86                    |
| 28300                   | 565 | 5,13                    | 1,59                    |
| 27000                   | 627 | 4,41                    | 1,44                    |

## P4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 44500                   | 129 | 35,3                    | 6,96                    |
| 41300                   | 145 | 29,2                    | 6,21                    |
| 45300                   | 155 | 29,9                    | 5,79                    |
| 44800                   | 180 | 25,6                    | 5,01                    |
| 46800                   | 201 | 23,8                    | 4,47                    |
| 45000                   | 232 | 19,9                    | 3,88                    |
| 45100                   | 247 | 18,7                    | 3,64                    |
| 47300                   | 277 | 17,5                    | 3,25                    |
| 45300                   | 320 | 14,5                    | 2,81                    |
| 47500                   | 351 | 13,9                    | 2,57                    |
| 45900                   | 405 | 11,6                    | 2,22                    |
| 47800                   | 454 | 10,8                    | 1,98                    |
| 49100                   | 483 | 10,4                    | 1,86                    |
| 48100                   | 558 | 8,81                    | 1,61                    |
| 50000                   | 625 | 8,19                    | 1,44                    |

## P4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 15000                   | 120 | 12,8                    | 7,51                    |
| 16300                   | 143 | 11,7                    | 6,31                    |
| 15100                   | 160 | 9,68                    | 5,64                    |
| 15700                   | 178 | 9,07                    | 5,07                    |
| 15700                   | 200 | 8,04                    | 4,50                    |
| 15200                   | 221 | 7,03                    | 4,07                    |
| 17100                   | 246 | 7,13                    | 3,65                    |
| 15300                   | 279 | 5,60                    | 3,22                    |
| 17200                   | 311 | 5,67                    | 2,89                    |
| 15400                   | 367 | 4,29                    | 2,45                    |
| 15600                   | 410 | 3,90                    | 2,20                    |
| 17800                   | 457 | 4,00                    | 1,97                    |
| 17200                   | 480 | 3,67                    | 1,87                    |
| 16300                   | 538 | 3,11                    | 1,67                    |
| 18500                   | 600 | 3,16                    | 1,50                    |

## P4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 29700                   | 126 | 24,1                    | 7,13                    |
| 30000                   | 147 | 20,9                    | 6,13                    |
| 29600                   | 160 | 18,9                    | 5,62                    |
| 30100                   | 183 | 16,8                    | 4,91                    |
| 29700                   | 200 | 15,2                    | 4,50                    |
| 30200                   | 219 | 14,2                    | 4,12                    |
| 30300                   | 251 | 12,4                    | 3,59                    |
| 29900                   | 274 | 11,2                    | 3,29                    |
| 30400                   | 313 | 9,95                    | 2,87                    |
| 30000                   | 342 | 9,00                    | 2,63                    |
| 30400                   | 407 | 7,65                    | 2,21                    |
| 31100                   | 452 | 7,04                    | 1,99                    |
| 31400                   | 509 | 6,33                    | 1,77                    |
| 32000                   | 564 | 5,80                    | 1,60                    |
| 35500                   | 636 | 5,73                    | 1,42                    |

## P4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 81700                   | 126 | 66,6                    | 7,16                    |
| 82000                   | 141 | 59,7                    | 6,40                    |
| 83000                   | 155 | 54,8                    | 5,80                    |
| 85100                   | 174 | 50,0                    | 5,16                    |
| 83500                   | 204 | 41,9                    | 4,42                    |
| 85700                   | 229 | 38,3                    | 3,93                    |
| 83000                   | 252 | 33,8                    | 3,58                    |
| 84000                   | 278 | 31,0                    | 3,24                    |
| 86300                   | 312 | 28,3                    | 2,88                    |
| 84500                   | 365 | 23,7                    | 2,47                    |
| 87700                   | 410 | 21,9                    | 2,20                    |
| 85900                   | 453 | 19,4                    | 1,98                    |
| 88200                   | 500 | 18,1                    | 1,80                    |
| 92100                   | 562 | 16,8                    | 1,60                    |
| 84400                   | 627 | 13,8                    | 1,44                    |

## 13.5 PH GEAR REDUCER - 700 rpm

## P1H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8320                    | 2,04 | 305                     | 343                     |
| 8710                    | 2,18 | 299                     | 321                     |
| 8620                    | 2,55 | 253                     | 275                     |
| 8580                    | 2,83 | 227                     | 247                     |
| 8740                    | 3,12 | 210                     | 224                     |
| 8550                    | 3,60 | 178                     | 194                     |
| 8400                    | 4,00 | 157                     | 175                     |
| 7950                    | 4,38 | 136                     | 160                     |
| 7360                    | 4,92 | 112                     | 142                     |

## P1H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16200                   | 1,96 | 621                     | 358                     |
| 18200                   | 2,24 | 608                     | 313                     |
| 17900                   | 2,53 | 531                     | 277                     |
| 17500                   | 2,78 | 472                     | 252                     |
| 17300                   | 3,19 | 405                     | 220                     |
| 17300                   | 3,56 | 362                     | 196                     |
| 16600                   | 3,93 | 315                     | 178                     |
| 15800                   | 4,58 | 258                     | 153                     |
| 13400                   | 5,09 | 197                     | 138                     |

## P1H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25900                   | 1,96 | 989                     | 358                     |
| 25900                   | 2,24 | 867                     | 313                     |
| 26200                   | 2,48 | 791                     | 283                     |
| 26600                   | 2,79 | 712                     | 251                     |
| 27000                   | 3,11 | 650                     | 225                     |
| 27500                   | 3,59 | 574                     | 195                     |
| 26600                   | 3,93 | 507                     | 178                     |
| 26400                   | 4,54 | 435                     | 154                     |
| 26300                   | 5,08 | 387                     | 138                     |

## P1H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11300                   | 1,95 | 432                     | 359                     |
| 11900                   | 2,25 | 396                     | 311                     |
| 11700                   | 2,55 | 343                     | 275                     |
| 11500                   | 2,76 | 313                     | 254                     |
| 11100                   | 3,11 | 266                     | 225                     |
| 11000                   | 3,57 | 231                     | 196                     |
| 10900                   | 4,00 | 204                     | 175                     |
| 10900                   | 4,46 | 183                     | 157                     |
| 9760                    | 4,92 | 148                     | 142                     |

## P1H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19200                   | 2,04 | 703                     | 343                     |
| 20200                   | 2,25 | 670                     | 311                     |
| 20900                   | 2,50 | 625                     | 280                     |
| 21300                   | 2,82 | 563                     | 248                     |
| 21100                   | 3,27 | 482                     | 214                     |
| 20900                   | 3,60 | 435                     | 194                     |
| 21100                   | 3,93 | 401                     | 178                     |
| 20900                   | 4,36 | 359                     | 161                     |
| 19300                   | 4,91 | 294                     | 143                     |

## P1H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 45000                   | 1,95 | 1720                    | 358                     |
| 47900                   | 2,29 | 1570                    | 306                     |
| 50900                   | 2,48 | 1540                    | 283                     |
| 52000                   | 2,83 | 1370                    | 247                     |
| 51200                   | 3,13 | 1230                    | 224                     |
| 51600                   | 3,56 | 1080                    | 196                     |
| 51500                   | 3,93 | 981                     | 178                     |
| 51800                   | 4,42 | 877                     | 158                     |
| 51800                   | 4,92 | 787                     | 142                     |

## 13.5 PH GEAR REDUCER - 700 rpm

## P2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9950                    | 5,66 | 134                     | 124                     |
| 10300                   | 6,53 | 121                     | 107                     |
| 10200                   | 7,26 | 107                     | 96,4                    |
| 9630                    | 7,96 | 92,4                    | 87,9                    |
| 10400                   | 8,57 | 92,3                    | 81,7                    |
| 10800                   | 9,90 | 83,2                    | 70,7                    |
| 10800                   | 11,0 | 74,6                    | 63,6                    |
| 10200                   | 12,1 | 64,3                    | 58,0                    |
| 10100                   | 15,0 | 51,3                    | 46,5                    |
| 10500                   | 16,7 | 48,0                    | 41,9                    |
| 9950                    | 18,3 | 41,5                    | 38,2                    |
| 9640                    | 20,6 | 35,8                    | 34,0                    |
| 9450                    | 22,8 | 31,7                    | 30,7                    |
| 9950                    | 25,0 | 30,4                    | 28,0                    |

## P2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17300                   | 5,62 | 236                     | 125                     |
| 18800                   | 6,20 | 231                     | 113                     |
| 19300                   | 7,23 | 204                     | 96,9                    |
| 21900                   | 8,02 | 208                     | 87,3                    |
| 21300                   | 8,85 | 184                     | 79,1                    |
| 22200                   | 10,1 | 167                     | 69,1                    |
| 21800                   | 11,2 | 149                     | 62,6                    |
| 20500                   | 13,0 | 120                     | 53,7                    |
| 20400                   | 14,5 | 107                     | 48,2                    |
| 20700                   | 16,0 | 98,6                    | 43,7                    |
| 19600                   | 18,7 | 80,1                    | 37,5                    |
| 19400                   | 19,7 | 75,1                    | 35,6                    |
| 20100                   | 22,9 | 66,9                    | 30,5                    |
| 17300                   | 25,5 | 52,0                    | 27,5                    |

## P2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38800                   | 5,82 | 509                     | 120                     |
| 36200                   | 6,37 | 434                     | 110                     |
| 37000                   | 7,36 | 384                     | 95,2                    |
| 39300                   | 8,20 | 366                     | 85,3                    |
| 37500                   | 8,98 | 319                     | 78,0                    |
| 39600                   | 10,2 | 297                     | 68,9                    |
| 39000                   | 11,1 | 267                     | 62,9                    |
| 39100                   | 12,9 | 232                     | 54,4                    |
| 39900                   | 14,1 | 216                     | 49,6                    |
| 39500                   | 15,5 | 195                     | 45,3                    |
| 38600                   | 17,9 | 165                     | 39,2                    |
| 37500                   | 20,0 | 143                     | 35,0                    |
| 39800                   | 23,1 | 131                     | 30,3                    |
| 35600                   | 25,9 | 105                     | 27,0                    |

## P2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14800                   | 5,52 | 205                     | 127                     |
| 14200                   | 6,35 | 171                     | 110                     |
| 15000                   | 7,11 | 161                     | 98,5                    |
| 14400                   | 7,84 | 141                     | 89,3                    |
| 15200                   | 9,01 | 128                     | 77,7                    |
| 14900                   | 9,66 | 118                     | 72,5                    |
| 15200                   | 11,1 | 104                     | 63,0                    |
| 14900                   | 12,4 | 91,3                    | 56,3                    |
| 14100                   | 14,1 | 76,5                    | 49,8                    |
| 14900                   | 15,7 | 72,2                    | 44,5                    |
| 14400                   | 17,6 | 62,5                    | 39,9                    |
| 13800                   | 19,4 | 54,5                    | 36,2                    |
| 14200                   | 23,1 | 47,1                    | 30,4                    |
| 13500                   | 25,4 | 40,5                    | 27,5                    |

## P2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25700                   | 5,68 | 345                     | 123                     |
| 25700                   | 6,20 | 316                     | 113                     |
| 25300                   | 6,87 | 281                     | 102                     |
| 26800                   | 8,06 | 253                     | 86,9                    |
| 28500                   | 8,79 | 247                     | 79,6                    |
| 28900                   | 10,4 | 212                     | 67,2                    |
| 29100                   | 11,4 | 196                     | 61,6                    |
| 27600                   | 12,6 | 167                     | 55,5                    |
| 30100                   | 14,7 | 157                     | 47,7                    |
| 30300                   | 16,0 | 144                     | 43,7                    |
| 28700                   | 17,8 | 123                     | 39,4                    |
| 27400                   | 20,0 | 105                     | 35,0                    |
| 28700                   | 22,2 | 98,8                    | 31,6                    |
| 24900                   | 25,0 | 76,1                    | 28,0                    |

## P2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 64200                   | 5,70 | 860                     | 123                     |
| 65300                   | 6,29 | 793                     | 111                     |
| 66900                   | 7,07 | 723                     | 99,1                    |
| 68500                   | 8,02 | 652                     | 87,3                    |
| 70600                   | 8,84 | 610                     | 79,2                    |
| 72800                   | 10,1 | 550                     | 69,3                    |
| 73800                   | 11,1 | 506                     | 62,9                    |
| 74900                   | 12,5 | 457                     | 55,9                    |
| 77000                   | 14,0 | 420                     | 50,0                    |
| 78600                   | 15,5 | 389                     | 45,3                    |
| 80300                   | 17,4 | 353                     | 40,3                    |
| 76900                   | 19,4 | 303                     | 36,1                    |
| 80300                   | 22,8 | 269                     | 30,7                    |
| 78600                   | 25,4 | 236                     | 27,5                    |

## 13.5 PH GEAR REDUCER - 700 rpm

## P3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10700                   | 28,8 | 28,9                    | 24,3                    |
| 10400                   | 32,0 | 25,4                    | 21,9                    |
| 9970                    | 35,1 | 22,1                    | 19,9                    |
| 11200                   | 39,8 | 21,8                    | 17,6                    |
| 10400                   | 43,6 | 18,7                    | 16,0                    |
| 11500                   | 51,1 | 17,6                    | 13,7                    |
| 10900                   | 56,0 | 15,2                    | 12,5                    |
| 10600                   | 62,9 | 13,1                    | 11,1                    |
| 11100                   | 69,7 | 12,4                    | 10,1                    |
| 10400                   | 80,4 | 10,1                    | 8,71                    |
| 11400                   | 88,1 | 10,1                    | 7,95                    |
| 10200                   | 98,9 | 8,03                    | 7,08                    |
| 9860                    | 110  | 6,97                    | 6,34                    |
| 10800                   | 121  | 6,96                    | 5,79                    |

## P3H 225

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-------|-------------------------|-------------------------|
| 18200                   | 28,6  | 49,4                    | 24,5                    |
| 20000                   | 31,6  | 49,3                    | 22,1                    |
| 20800                   | 36,2  | 44,8                    | 19,4                    |
| 21100                   | 39,9  | 41,2                    | 17,5                    |
| 20300                   | 46,5  | 34,0                    | 15,0                    |
| 20900                   | 51,9  | 31,4                    | 13,5                    |
| 22000                   | 57,3  | 30,0                    | 12,2                    |
| 21000                   | 63,6  | 25,7                    | 11,0                    |
| 22500                   | 70,2  | 25,0                    | 9,97                    |
| 22900                   | 81,5  | 21,9                    | 8,59                    |
| 21200                   | 90,5  | 18,3                    | 7,73                    |
| 23300                   | 100,0 | 18,2                    | 7,00                    |
| 22800                   | 116   | 15,3                    | 6,01                    |
| 21300                   | 129   | 12,8                    | 5,41                    |

## P3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36300                   | 29,2 | 96,9                    | 24,0                    |
| 40500                   | 32,0 | 98,6                    | 21,9                    |
| 39700                   | 37,0 | 83,8                    | 18,9                    |
| 41400                   | 39,7 | 81,5                    | 17,7                    |
| 40600                   | 45,8 | 69,2                    | 15,3                    |
| 39500                   | 50,3 | 61,3                    | 13,9                    |
| 43000                   | 55,0 | 60,8                    | 12,7                    |
| 42100                   | 63,6 | 51,7                    | 11,0                    |
| 44200                   | 71,3 | 48,4                    | 9,82                    |
| 43400                   | 82,3 | 41,1                    | 8,50                    |
| 43700                   | 87,6 | 38,9                    | 7,99                    |
| 45800                   | 98,2 | 36,4                    | 7,13                    |
| 44300                   | 113  | 30,5                    | 6,17                    |
| 41000                   | 127  | 25,1                    | 5,51                    |

## P3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14500                   | 27,8 | 40,7                    | 25,2                    |
| 15500                   | 30,6 | 39,4                    | 22,9                    |
| 14700                   | 34,2 | 33,4                    | 20,5                    |
| 15800                   | 38,6 | 31,8                    | 18,1                    |
| 14700                   | 43,3 | 26,6                    | 16,2                    |
| 16000                   | 51,5 | 24,3                    | 13,6                    |
| 14800                   | 57,7 | 20,1                    | 12,1                    |
| 14000                   | 63,1 | 17,3                    | 11,1                    |
| 15800                   | 71,2 | 17,3                    | 9,83                    |
| 15000                   | 79,8 | 14,6                    | 8,77                    |
| 16100                   | 89,0 | 14,1                    | 7,87                    |
| 15000                   | 105  | 11,2                    | 6,68                    |
| 16700                   | 117  | 11,1                    | 5,99                    |
| 14200                   | 129  | 8,57                    | 5,43                    |

## P3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26400                   | 28,0 | 73,5                    | 25,0                    |
| 28800                   | 30,5 | 73,6                    | 22,9                    |
| 29300                   | 36,2 | 63,2                    | 19,4                    |
| 29000                   | 39,5 | 57,2                    | 17,7                    |
| 28600                   | 43,8 | 50,9                    | 16,0                    |
| 29600                   | 50,9 | 45,2                    | 13,7                    |
| 29200                   | 55,6 | 40,9                    | 12,6                    |
| 29700                   | 63,6 | 36,4                    | 11,0                    |
| 29300                   | 69,4 | 32,9                    | 10,1                    |
| 29400                   | 82,8 | 27,7                    | 8,46                    |
| 29700                   | 91,8 | 25,2                    | 7,63                    |
| 29500                   | 103  | 22,3                    | 6,77                    |
| 29800                   | 115  | 20,3                    | 6,11                    |
| 29100                   | 129  | 17,6                    | 5,42                    |

## P3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 74100                   | 28,3 | 204                     | 24,7                    |
| 76100                   | 31,2 | 190                     | 22,4                    |
| 78100                   | 35,7 | 171                     | 19,6                    |
| 80100                   | 39,3 | 159                     | 17,8                    |
| 82200                   | 44,2 | 145                     | 15,8                    |
| 84200                   | 49,5 | 133                     | 14,1                    |
| 86200                   | 54,6 | 123                     | 12,8                    |
| 87200                   | 65,0 | 105                     | 10,8                    |
| 89300                   | 71,7 | 97,1                    | 9,76                    |
| 89300                   | 80,6 | 86,3                    | 8,68                    |
| 87200                   | 89,2 | 76,3                    | 7,85                    |
| 91300                   | 98,4 | 72,4                    | 7,12                    |
| 91300                   | 111  | 64,4                    | 6,33                    |
| 86900                   | 123  | 55,0                    | 5,68                    |

## 13.5 PH GEAR REDUCER - 700 rpm

## P4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 10800                   | 128 | 6,70                    | 5,46                    |
| 11900                   | 142 | 6,66                    | 4,93                    |
| 12300                   | 164 | 6,00                    | 4,28                    |
| 13000                   | 179 | 5,77                    | 3,90                    |
| 11500                   | 201 | 4,54                    | 3,47                    |
| 12100                   | 225 | 4,28                    | 3,11                    |
| 12200                   | 246 | 3,95                    | 2,84                    |
| 11500                   | 277 | 3,32                    | 2,53                    |
| 11600                   | 317 | 2,91                    | 2,21                    |
| 11900                   | 353 | 2,67                    | 1,98                    |
| 13000                   | 387 | 2,67                    | 1,81                    |
| 11900                   | 435 | 2,17                    | 1,61                    |
| 12100                   | 495 | 1,95                    | 1,42                    |
| 12600                   | 552 | 1,82                    | 1,27                    |
| 13800                   | 605 | 1,82                    | 1,16                    |

## P4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 23800                   | 130 | 14,6                    | 5,37                    |
| 22900                   | 144 | 12,6                    | 4,86                    |
| 26200                   | 159 | 13,1                    | 4,40                    |
| 26000                   | 185 | 11,2                    | 3,78                    |
| 26300                   | 197 | 10,7                    | 3,56                    |
| 26400                   | 228 | 9,20                    | 3,07                    |
| 23100                   | 251 | 7,32                    | 2,78                    |
| 26500                   | 278 | 7,60                    | 2,52                    |
| 27800                   | 323 | 6,85                    | 2,16                    |
| 23300                   | 358 | 5,18                    | 1,96                    |
| 28100                   | 397 | 5,64                    | 1,76                    |
| 28700                   | 460 | 4,96                    | 1,52                    |
| 27400                   | 484 | 4,51                    | 1,44                    |
| 29400                   | 565 | 4,15                    | 1,24                    |
| 28100                   | 627 | 3,57                    | 1,12                    |

## P4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 46400                   | 129 | 28,5                    | 5,41                    |
| 43100                   | 145 | 23,7                    | 4,83                    |
| 47200                   | 155 | 24,2                    | 4,50                    |
| 46700                   | 180 | 20,7                    | 3,90                    |
| 48700                   | 201 | 19,3                    | 3,48                    |
| 46900                   | 232 | 16,1                    | 3,02                    |
| 47000                   | 247 | 15,1                    | 2,83                    |
| 49200                   | 277 | 14,1                    | 2,53                    |
| 47200                   | 320 | 11,7                    | 2,19                    |
| 49500                   | 351 | 11,2                    | 2,00                    |
| 47800                   | 405 | 9,40                    | 1,73                    |
| 49800                   | 454 | 8,73                    | 1,54                    |
| 51100                   | 483 | 8,42                    | 1,45                    |
| 50000                   | 558 | 7,14                    | 1,25                    |
| 52000                   | 625 | 6,63                    | 1,12                    |

## P4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 15600                   | 120 | 10,4                    | 5,84                    |
| 17000                   | 143 | 9,48                    | 4,91                    |
| 15700                   | 160 | 7,84                    | 4,38                    |
| 16400                   | 178 | 7,35                    | 3,94                    |
| 16300                   | 200 | 6,51                    | 3,50                    |
| 15800                   | 221 | 5,70                    | 3,17                    |
| 17900                   | 246 | 5,77                    | 2,84                    |
| 15900                   | 279 | 4,54                    | 2,51                    |
| 17900                   | 311 | 4,59                    | 2,25                    |
| 16000                   | 367 | 3,48                    | 1,91                    |
| 16200                   | 410 | 3,16                    | 1,71                    |
| 18600                   | 457 | 3,24                    | 1,53                    |
| 17900                   | 480 | 2,97                    | 1,46                    |
| 17000                   | 538 | 2,51                    | 1,30                    |
| 19300                   | 600 | 2,56                    | 1,17                    |

## P4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 30900                   | 126 | 19,5                    | 5,55                    |
| 31200                   | 147 | 16,9                    | 4,77                    |
| 30800                   | 160 | 15,3                    | 4,37                    |
| 31400                   | 183 | 13,6                    | 3,82                    |
| 31000                   | 200 | 12,3                    | 3,50                    |
| 31500                   | 219 | 11,5                    | 3,20                    |
| 31600                   | 251 | 10,0                    | 2,79                    |
| 31100                   | 274 | 9,06                    | 2,56                    |
| 31700                   | 313 | 8,06                    | 2,24                    |
| 31300                   | 342 | 7,29                    | 2,05                    |
| 31700                   | 407 | 6,20                    | 1,72                    |
| 32300                   | 452 | 5,70                    | 1,55                    |
| 32700                   | 509 | 5,12                    | 1,38                    |
| 33300                   | 564 | 4,70                    | 1,24                    |
| 37000                   | 636 | 4,64                    | 1,10                    |

## P4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 85100                   | 126 | 53,9                    | 5,57                    |
| 85400                   | 141 | 48,4                    | 4,97                    |
| 86400                   | 155 | 44,4                    | 4,51                    |
| 88600                   | 174 | 40,5                    | 4,01                    |
| 86900                   | 204 | 34,0                    | 3,43                    |
| 89300                   | 229 | 31,0                    | 3,05                    |
| 86400                   | 252 | 27,4                    | 2,78                    |
| 87500                   | 278 | 25,1                    | 2,52                    |
| 89800                   | 312 | 22,9                    | 2,24                    |
| 88000                   | 365 | 19,2                    | 1,92                    |
| 91400                   | 410 | 17,8                    | 1,71                    |
| 89400                   | 453 | 15,7                    | 1,54                    |
| 91800                   | 500 | 14,6                    | 1,40                    |
| 95900                   | 562 | 13,6                    | 1,25                    |
| 87900                   | 627 | 11,2                    | 1,12                    |

## 13.6 PH GEAR REDUCER - 500 rpm

## P1H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8470                    | 2,04 | 222                     | 245                     |
| 8870                    | 2,18 | 217                     | 229                     |
| 8790                    | 2,55 | 184                     | 196                     |
| 8750                    | 2,83 | 165                     | 177                     |
| 8900                    | 3,12 | 152                     | 160                     |
| 8720                    | 3,60 | 129                     | 139                     |
| 8560                    | 4,00 | 114                     | 125                     |
| 8110                    | 4,38 | 98,9                    | 114                     |
| 7500                    | 4,92 | 81,4                    | 102                     |

## P1H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16600                   | 1,96 | 452                     | 256                     |
| 18500                   | 2,24 | 443                     | 223                     |
| 18300                   | 2,53 | 386                     | 198                     |
| 17900                   | 2,78 | 343                     | 180                     |
| 17600                   | 3,19 | 295                     | 157                     |
| 17600                   | 3,56 | 264                     | 140                     |
| 16900                   | 3,93 | 230                     | 127                     |
| 16100                   | 4,58 | 188                     | 109                     |
| 13700                   | 5,09 | 144                     | 98,2                    |

## P1H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26400                   | 1,96 | 720                     | 256                     |
| 26400                   | 2,24 | 631                     | 223                     |
| 26700                   | 2,48 | 576                     | 202                     |
| 27100                   | 2,79 | 518                     | 179                     |
| 27500                   | 3,11 | 473                     | 161                     |
| 28100                   | 3,59 | 418                     | 139                     |
| 27100                   | 3,93 | 369                     | 127                     |
| 26900                   | 4,54 | 317                     | 110                     |
| 26800                   | 5,08 | 282                     | 98,4                    |

## P1H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11500                   | 1,95 | 314                     | 256                     |
| 12100                   | 2,25 | 288                     | 222                     |
| 11900                   | 2,55 | 250                     | 196                     |
| 11800                   | 2,76 | 228                     | 181                     |
| 11300                   | 3,11 | 194                     | 161                     |
| 11200                   | 3,57 | 168                     | 140                     |
| 11100                   | 4,00 | 148                     | 125                     |
| 11100                   | 4,46 | 133                     | 112                     |
| 9950                    | 4,92 | 108                     | 102                     |

## P1H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19600                   | 2,04 | 511                     | 245                     |
| 20500                   | 2,25 | 488                     | 222                     |
| 21300                   | 2,50 | 455                     | 200                     |
| 21700                   | 2,82 | 410                     | 177                     |
| 21500                   | 3,27 | 351                     | 153                     |
| 21300                   | 3,60 | 317                     | 139                     |
| 21500                   | 3,93 | 292                     | 127                     |
| 21300                   | 4,36 | 262                     | 115                     |
| 19700                   | 4,91 | 214                     | 102                     |

## P1H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 45900                   | 1,95 | 1250                    | 256                     |
| 48800                   | 2,29 | 1140                    | 219                     |
| 51800                   | 2,48 | 1120                    | 202                     |
| 53000                   | 2,83 | 1000                    | 176                     |
| 52200                   | 3,13 | 893                     | 160                     |
| 52600                   | 3,56 | 789                     | 140                     |
| 52500                   | 3,93 | 714                     | 127                     |
| 52800                   | 4,42 | 638                     | 113                     |
| 52800                   | 4,92 | 573                     | 102                     |

## 13.6 PH GEAR REDUCER - 500 rpm

## P2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10200                   | 5,66 | 98,6                    | 88,4                    |
| 10600                   | 6,53 | 88,6                    | 76,6                    |
| 10500                   | 7,26 | 78,7                    | 68,9                    |
| 9900                    | 7,96 | 67,8                    | 62,8                    |
| 10700                   | 8,57 | 67,8                    | 58,3                    |
| 11100                   | 9,90 | 61,1                    | 50,5                    |
| 11100                   | 11,0 | 54,8                    | 45,5                    |
| 10500                   | 12,1 | 47,3                    | 41,5                    |
| 10400                   | 15,0 | 37,6                    | 33,2                    |
| 10800                   | 16,7 | 35,3                    | 29,9                    |
| 10200                   | 18,3 | 30,5                    | 27,3                    |
| 9910                    | 20,6 | 26,3                    | 24,3                    |
| 9720                    | 22,8 | 23,3                    | 22,0                    |
| 10200                   | 25,0 | 22,4                    | 20,0                    |

## P2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17800                   | 5,62 | 173                     | 89,0                    |
| 19300                   | 6,20 | 170                     | 80,6                    |
| 19800                   | 7,23 | 149                     | 69,2                    |
| 22500                   | 8,02 | 153                     | 62,4                    |
| 21900                   | 8,85 | 135                     | 56,5                    |
| 22800                   | 10,1 | 123                     | 49,4                    |
| 22400                   | 11,2 | 109                     | 44,7                    |
| 21100                   | 13,0 | 88,3                    | 38,4                    |
| 21000                   | 14,5 | 78,9                    | 34,4                    |
| 21300                   | 16,0 | 72,4                    | 31,2                    |
| 20200                   | 18,7 | 58,8                    | 26,8                    |
| 19900                   | 19,7 | 55,2                    | 25,4                    |
| 20600                   | 22,9 | 49,1                    | 21,8                    |
| 17800                   | 25,5 | 38,2                    | 19,6                    |

## P2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39900                   | 5,82 | 374                     | 86,0                    |
| 37200                   | 6,37 | 319                     | 78,5                    |
| 38100                   | 7,36 | 282                     | 68,0                    |
| 40400                   | 8,20 | 269                     | 61,0                    |
| 38500                   | 8,98 | 234                     | 55,7                    |
| 40700                   | 10,2 | 218                     | 49,2                    |
| 40100                   | 11,1 | 196                     | 44,9                    |
| 40200                   | 12,9 | 171                     | 38,9                    |
| 41100                   | 14,1 | 159                     | 35,4                    |
| 40600                   | 15,5 | 143                     | 32,4                    |
| 39700                   | 17,9 | 121                     | 28,0                    |
| 38500                   | 20,0 | 105                     | 25,0                    |
| 40900                   | 23,1 | 96,5                    | 21,6                    |
| 36600                   | 25,9 | 77,1                    | 19,3                    |

## P2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15200                   | 5,52 | 150                     | 90,6                    |
| 14600                   | 6,35 | 125                     | 78,7                    |
| 15500                   | 7,11 | 119                     | 70,3                    |
| 14900                   | 7,84 | 103                     | 63,8                    |
| 15600                   | 9,01 | 94,2                    | 55,5                    |
| 15300                   | 9,66 | 86,5                    | 51,8                    |
| 15600                   | 11,1 | 76,7                    | 45,0                    |
| 15300                   | 12,4 | 67,0                    | 40,2                    |
| 14500                   | 14,1 | 56,1                    | 35,6                    |
| 15300                   | 15,7 | 53,0                    | 31,8                    |
| 14800                   | 17,6 | 45,9                    | 28,5                    |
| 14200                   | 19,4 | 40,0                    | 25,8                    |
| 14600                   | 23,1 | 34,6                    | 21,7                    |
| 13900                   | 25,4 | 29,8                    | 19,7                    |

## P2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26400                   | 5,68 | 254                     | 88,1                    |
| 26400                   | 6,20 | 232                     | 80,7                    |
| 26000                   | 6,87 | 206                     | 72,8                    |
| 27500                   | 8,06 | 186                     | 62,1                    |
| 29300                   | 8,79 | 182                     | 56,9                    |
| 29700                   | 10,4 | 155                     | 48,0                    |
| 30000                   | 11,4 | 144                     | 44,0                    |
| 28400                   | 12,6 | 123                     | 39,6                    |
| 30900                   | 14,7 | 115                     | 34,1                    |
| 31200                   | 16,0 | 106                     | 31,2                    |
| 29500                   | 17,8 | 90,5                    | 28,1                    |
| 28200                   | 20,0 | 76,8                    | 25,0                    |
| 29500                   | 22,2 | 72,6                    | 22,5                    |
| 25600                   | 25,0 | 55,9                    | 20,0                    |

## P2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66000                   | 5,70 | 631                     | 87,7                    |
| 67100                   | 6,29 | 582                     | 79,5                    |
| 68800                   | 7,07 | 531                     | 70,8                    |
| 70400                   | 8,02 | 479                     | 62,4                    |
| 72600                   | 8,84 | 448                     | 56,6                    |
| 74800                   | 10,1 | 404                     | 49,5                    |
| 75900                   | 11,1 | 372                     | 44,9                    |
| 77000                   | 12,5 | 336                     | 40,0                    |
| 79200                   | 14,0 | 308                     | 35,7                    |
| 80900                   | 15,5 | 285                     | 32,4                    |
| 82500                   | 17,4 | 259                     | 28,8                    |
| 79000                   | 19,4 | 223                     | 25,8                    |
| 82500                   | 22,8 | 197                     | 21,9                    |
| 80900                   | 25,4 | 173                     | 19,7                    |

## 13.6 PH GEAR REDUCER - 500 rpm

## P3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10800                   | 28,8 | 20,8                    | 17,3                    |
| 10500                   | 32,0 | 18,3                    | 15,6                    |
| 10100                   | 35,1 | 16,0                    | 14,2                    |
| 11300                   | 39,8 | 15,7                    | 12,6                    |
| 10500                   | 43,6 | 13,5                    | 11,5                    |
| 11600                   | 51,1 | 12,7                    | 9,78                    |
| 11000                   | 56,0 | 10,9                    | 8,93                    |
| 10700                   | 62,9 | 9,43                    | 7,95                    |
| 11200                   | 69,7 | 8,92                    | 7,18                    |
| 10500                   | 80,4 | 7,30                    | 6,22                    |
| 11500                   | 88,1 | 7,28                    | 5,68                    |
| 10300                   | 98,9 | 5,79                    | 5,06                    |
| 9940                    | 110  | 5,02                    | 4,53                    |
| 10900                   | 121  | 5,01                    | 4,13                    |

## P3H 225

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-------|-------------------------|-------------------------|
| 18300                   | 28,6  | 35,6                    | 17,5                    |
| 20200                   | 31,6  | 35,5                    | 15,8                    |
| 21000                   | 36,2  | 32,3                    | 13,8                    |
| 21300                   | 39,9  | 29,7                    | 12,5                    |
| 20500                   | 46,5  | 24,5                    | 10,7                    |
| 21100                   | 51,9  | 22,6                    | 9,64                    |
| 22200                   | 57,3  | 21,6                    | 8,73                    |
| 21200                   | 63,6  | 18,5                    | 7,86                    |
| 22700                   | 70,2  | 18,0                    | 7,12                    |
| 23100                   | 81,5  | 15,8                    | 6,13                    |
| 21400                   | 90,5  | 13,2                    | 5,52                    |
| 23500                   | 100,0 | 13,1                    | 5,00                    |
| 23000                   | 116   | 11,0                    | 4,29                    |
| 21500                   | 129   | 9,25                    | 3,86                    |

## P3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36600                   | 29,2 | 69,8                    | 17,1                    |
| 40800                   | 32,0 | 71,1                    | 15,6                    |
| 40100                   | 37,0 | 60,4                    | 13,5                    |
| 41800                   | 39,7 | 58,7                    | 12,6                    |
| 41000                   | 45,8 | 49,8                    | 10,9                    |
| 39900                   | 50,3 | 44,1                    | 9,94                    |
| 43300                   | 55,0 | 43,8                    | 9,08                    |
| 42500                   | 63,6 | 37,2                    | 7,86                    |
| 44600                   | 71,3 | 34,8                    | 7,02                    |
| 43800                   | 82,3 | 29,6                    | 6,07                    |
| 44100                   | 87,6 | 28,0                    | 5,71                    |
| 46200                   | 98,2 | 26,2                    | 5,09                    |
| 44700                   | 113  | 22,0                    | 4,41                    |
| 41300                   | 127  | 18,1                    | 3,94                    |

## P3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14600                   | 27,8 | 29,3                    | 18,0                    |
| 15600                   | 30,6 | 28,4                    | 16,4                    |
| 14800                   | 34,2 | 24,1                    | 14,6                    |
| 15900                   | 38,6 | 22,9                    | 12,9                    |
| 14900                   | 43,3 | 19,1                    | 11,6                    |
| 16200                   | 51,5 | 17,5                    | 9,71                    |
| 15000                   | 57,7 | 14,5                    | 8,67                    |
| 14100                   | 63,1 | 12,5                    | 7,92                    |
| 15900                   | 71,2 | 12,4                    | 7,02                    |
| 15100                   | 79,8 | 10,5                    | 6,27                    |
| 16200                   | 89,0 | 10,1                    | 5,62                    |
| 15200                   | 105  | 8,06                    | 4,77                    |
| 16800                   | 117  | 8,00                    | 4,28                    |
| 14300                   | 129  | 6,17                    | 3,88                    |

## P3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 26600                   | 28,0 | 53,0                    | 17,9                    |
| 29100                   | 30,5 | 53,0                    | 16,4                    |
| 29600                   | 36,2 | 45,6                    | 13,8                    |
| 29200                   | 39,5 | 41,2                    | 12,7                    |
| 28900                   | 43,8 | 36,7                    | 11,4                    |
| 29800                   | 50,9 | 32,6                    | 9,82                    |
| 29400                   | 55,6 | 29,5                    | 8,99                    |
| 29900                   | 63,6 | 26,2                    | 7,86                    |
| 29500                   | 69,4 | 23,7                    | 7,20                    |
| 29700                   | 82,8 | 20,0                    | 6,04                    |
| 29900                   | 91,8 | 18,2                    | 5,45                    |
| 29800                   | 103  | 16,1                    | 4,84                    |
| 30100                   | 115  | 14,6                    | 4,36                    |
| 29400                   | 129  | 12,7                    | 3,87                    |

## P3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 74700                   | 28,3 | 147                     | 17,7                    |
| 76800                   | 31,2 | 137                     | 16,0                    |
| 78800                   | 35,7 | 123                     | 14,0                    |
| 80900                   | 39,3 | 114                     | 12,7                    |
| 82900                   | 44,2 | 104                     | 11,3                    |
| 85000                   | 49,5 | 95,6                    | 10,1                    |
| 87000                   | 54,6 | 88,7                    | 9,16                    |
| 88000                   | 65,0 | 75,4                    | 7,69                    |
| 90100                   | 71,7 | 69,9                    | 6,97                    |
| 90100                   | 80,6 | 62,2                    | 6,20                    |
| 88000                   | 89,2 | 55,0                    | 5,61                    |
| 92100                   | 98,4 | 52,2                    | 5,08                    |
| 92100                   | 111  | 46,4                    | 4,52                    |
| 87700                   | 123  | 39,6                    | 4,06                    |

## 13.6 PH GEAR REDUCER - 500 rpm

## P4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 11400                   | 128 | 5,06                    | 3,90                    |
| 12500                   | 142 | 5,03                    | 3,52                    |
| 13000                   | 164 | 4,53                    | 3,05                    |
| 13700                   | 179 | 4,36                    | 2,79                    |
| 12200                   | 201 | 3,43                    | 2,48                    |
| 12800                   | 225 | 3,23                    | 2,22                    |
| 12900                   | 246 | 2,98                    | 2,03                    |
| 12200                   | 277 | 2,51                    | 1,81                    |
| 12200                   | 317 | 2,20                    | 1,58                    |
| 12500                   | 353 | 2,02                    | 1,42                    |
| 13700                   | 387 | 2,02                    | 1,29                    |
| 12500                   | 435 | 1,64                    | 1,15                    |
| 12800                   | 495 | 1,47                    | 1,01                    |
| 13300                   | 552 | 1,37                    | 0,906                   |
| 14600                   | 605 | 1,37                    | 0,827                   |

## P4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 25200                   | 130 | 11,0                    | 3,84                    |
| 24200                   | 144 | 9,54                    | 3,47                    |
| 27700                   | 159 | 9,90                    | 3,14                    |
| 27500                   | 185 | 8,43                    | 2,70                    |
| 27800                   | 197 | 8,04                    | 2,54                    |
| 27900                   | 228 | 6,95                    | 2,19                    |
| 24400                   | 251 | 5,53                    | 1,99                    |
| 28000                   | 278 | 5,74                    | 1,80                    |
| 29400                   | 323 | 5,17                    | 1,55                    |
| 24600                   | 358 | 3,91                    | 1,40                    |
| 29700                   | 397 | 4,26                    | 1,26                    |
| 30300                   | 460 | 3,74                    | 1,09                    |
| 29000                   | 484 | 3,40                    | 1,03                    |
| 31100                   | 565 | 3,14                    | 0,886                   |
| 29700                   | 627 | 2,70                    | 0,797                   |

## P4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 49000                   | 129 | 21,6                    | 3,87                    |
| 45500                   | 145 | 17,9                    | 3,45                    |
| 49900                   | 155 | 18,3                    | 3,22                    |
| 49300                   | 180 | 15,6                    | 2,78                    |
| 51500                   | 201 | 14,6                    | 2,49                    |
| 49600                   | 232 | 12,2                    | 2,16                    |
| 49700                   | 247 | 11,4                    | 2,02                    |
| 52000                   | 277 | 10,7                    | 1,80                    |
| 49900                   | 320 | 8,87                    | 1,56                    |
| 52300                   | 351 | 8,48                    | 1,43                    |
| 50500                   | 405 | 7,10                    | 1,23                    |
| 52600                   | 454 | 6,60                    | 1,10                    |
| 54000                   | 483 | 6,36                    | 1,03                    |
| 52900                   | 558 | 5,39                    | 0,895                   |
| 55000                   | 625 | 5,01                    | 0,799                   |

## P4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 16500                   | 120 | 7,84                    | 4,17                    |
| 17900                   | 143 | 7,16                    | 3,51                    |
| 16600                   | 160 | 5,92                    | 3,13                    |
| 17300                   | 178 | 5,55                    | 2,82                    |
| 17300                   | 200 | 4,91                    | 2,50                    |
| 16700                   | 221 | 4,30                    | 2,26                    |
| 18900                   | 246 | 4,36                    | 2,03                    |
| 16800                   | 279 | 3,43                    | 1,79                    |
| 19000                   | 311 | 3,46                    | 1,61                    |
| 16900                   | 367 | 2,62                    | 1,36                    |
| 17200                   | 410 | 2,39                    | 1,22                    |
| 19600                   | 457 | 2,45                    | 1,09                    |
| 18900                   | 480 | 2,24                    | 1,04                    |
| 18000                   | 538 | 1,90                    | 0,929                   |
| 20400                   | 600 | 1,94                    | 0,833                   |

## P4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 32700                   | 126 | 14,7                    | 3,96                    |
| 33000                   | 147 | 12,8                    | 3,41                    |
| 32600                   | 160 | 11,6                    | 3,12                    |
| 33200                   | 183 | 10,3                    | 2,73                    |
| 32700                   | 200 | 9,31                    | 2,50                    |
| 33300                   | 219 | 8,66                    | 2,29                    |
| 33400                   | 251 | 7,57                    | 1,99                    |
| 32900                   | 274 | 6,84                    | 1,83                    |
| 33500                   | 313 | 6,09                    | 1,60                    |
| 33100                   | 342 | 5,50                    | 1,46                    |
| 33500                   | 407 | 4,68                    | 1,23                    |
| 34200                   | 452 | 4,30                    | 1,11                    |
| 34600                   | 509 | 3,87                    | 0,983                   |
| 35200                   | 564 | 3,55                    | 0,886                   |
| 39100                   | 636 | 3,50                    | 0,787                   |

## P4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 89900                   | 126 | 40,7                    | 3,98                    |
| 90300                   | 141 | 36,5                    | 3,55                    |
| 91300                   | 155 | 33,5                    | 3,22                    |
| 93700                   | 174 | 30,6                    | 2,87                    |
| 91900                   | 204 | 25,6                    | 2,45                    |
| 94400                   | 229 | 23,4                    | 2,18                    |
| 91300                   | 252 | 20,7                    | 1,99                    |
| 92500                   | 278 | 19,0                    | 1,80                    |
| 95000                   | 312 | 17,3                    | 1,60                    |
| 93000                   | 365 | 14,5                    | 1,37                    |
| 96600                   | 410 | 13,4                    | 1,22                    |
| 94500                   | 453 | 11,9                    | 1,10                    |
| 97100                   | 500 | 11,0                    | 1,000                   |
| 101000                  | 562 | 10,3                    | 0,889                   |
| 92900                   | 627 | 8,44                    | 0,798                   |

14.1 BH GEAR REDUCER - 1750 rpm

B2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 5940                    | 5,27 | 217                     | 332         |
| 6930                    | 6,16 | 217                     | 284         |
| 7710                    | 6,85 | 217                     | 255         |
| 8470                    | 7,53 | 217                     | 232         |
| 9780                    | 8,70 | 217                     | 201         |
| 9680                    | 9,67 | 193                     | 181         |
| 7930                    | 11,3 | 135                     | 155         |
| 8820                    | 12,6 | 135                     | 139         |
| 9470                    | 13,8 | 133                     | 127         |
| 8520                    | 15,5 | 106                     | 113         |
| 7570                    | 17,3 | 84,5                    | 101         |
| 7200                    | 19,6 | 70,9                    | 89,3        |
| 7880                    | 21,5 | 70,8                    | 81,5        |
| 8770                    | 24,1 | 70,1                    | 72,6        |

B2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11600                   | 5,41 | 412                     | 324         |
| 13300                   | 6,11 | 419                     | 287         |
| 14700                   | 6,71 | 422                     | 261         |
| 16000                   | 7,70 | 400                     | 227         |
| 17100                   | 8,61 | 382                     | 203         |
| 16700                   | 9,51 | 338                     | 184         |
| 15500                   | 11,1 | 270                     | 158         |
| 15100                   | 12,4 | 235                     | 142         |
| 15700                   | 14,4 | 211                     | 121         |
| 15200                   | 16,0 | 183                     | 109         |
| 14200                   | 17,7 | 155                     | 98,8        |
| 14200                   | 20,4 | 134                     | 85,7        |
| 15000                   | 22,7 | 127                     | 77,2        |
| 14800                   | 25,1 | 114                     | 69,7        |

B2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 21900                   | 5,41 | 781                     | 324         |
| 24800                   | 5,98 | 798                     | 292         |
| 25700                   | 6,74 | 736                     | 260         |
| 26200                   | 7,50 | 673                     | 233         |
| 26700                   | 8,67 | 593                     | 202         |
| 27200                   | 9,49 | 552                     | 184         |
| 27600                   | 11,0 | 486                     | 160         |
| 28100                   | 12,3 | 439                     | 142         |
| 28600                   | 14,3 | 387                     | 123         |
| 29500                   | 16,0 | 357                     | 110         |
| 28600                   | 17,3 | 319                     | 101         |
| 25500                   | 20,2 | 244                     | 86,6        |
| 28400                   | 22,6 | 243                     | 77,4        |
| 30500                   | 24,5 | 240                     | 71,4        |

B2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 8600                    | 5,44 | 305                     | 322         |
| 9750                    | 6,16 | 305                     | 284         |
| 10600                   | 6,68 | 305                     | 262         |
| 11900                   | 7,50 | 305                     | 233         |
| 12700                   | 8,63 | 285                     | 203         |
| 12700                   | 9,67 | 252                     | 181         |
| 11900                   | 10,8 | 213                     | 162         |
| 12100                   | 12,6 | 185                     | 139         |
| 12000                   | 14,0 | 165                     | 125         |
| 11600                   | 15,5 | 145                     | 113         |
| 9640                    | 17,3 | 108                     | 101         |
| 9890                    | 19,9 | 96,0                    | 88,1        |
| 10900                   | 21,9 | 96,0                    | 79,8        |
| 10100                   | 24,5 | 79,4                    | 71,4        |

B2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 17800                   | 5,44 | 632                     | 322         |
| 20000                   | 6,04 | 638                     | 290         |
| 22800                   | 6,82 | 645                     | 256         |
| 24200                   | 7,89 | 592                     | 222         |
| 23600                   | 8,70 | 524                     | 201         |
| 23000                   | 9,49 | 467                     | 184         |
| 21800                   | 11,3 | 371                     | 155         |
| 23600                   | 12,3 | 369                     | 142         |
| 22200                   | 13,7 | 313                     | 128         |
| 22000                   | 15,4 | 274                     | 113         |
| 19600                   | 17,5 | 216                     | 100         |
| 21100                   | 19,4 | 209                     | 90,2        |
| 21600                   | 21,9 | 190                     | 80,0        |
| 18800                   | 24,3 | 149                     | 72,0        |

B2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 45100                   | 5,52 | 1570                    | 317         |
| 47000                   | 5,98 | 1520                    | 292         |
| 50000                   | 6,85 | 1410                    | 256         |
| 51500                   | 7,55 | 1310                    | 232         |
| 60800                   | 8,61 | 1360                    | 203         |
| 58500                   | 9,49 | 1190                    | 184         |
| 53900                   | 10,7 | 974                     | 164         |
| 53900                   | 12,3 | 842                     | 142         |
| 53900                   | 13,9 | 749                     | 126         |
| 53400                   | 15,5 | 665                     | 113         |
| 55900                   | 17,4 | 618                     | 100         |
| 51500                   | 19,7 | 504                     | 88,9        |
| 55900                   | 21,9 | 491                     | 79,8        |
| 58800                   | 24,7 | 459                     | 70,8        |

## 14.1 BH GEAR REDUCER - 1750 rpm

## B3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9380                    | 29,1 | 62,8                    | 60,1                    |
| 9350                    | 32,7 | 55,7                    | 53,5                    |
| 10200                   | 36,3 | 54,7                    | 48,2                    |
| 10800                   | 40,4 | 52,2                    | 43,3                    |
| 10200                   | 44,3 | 44,8                    | 39,5                    |
| 9880                    | 49,7 | 38,8                    | 35,2                    |
| 10300                   | 57,6 | 34,9                    | 30,4                    |
| 10200                   | 64,6 | 30,9                    | 27,1                    |
| 9820                    | 71,6 | 26,8                    | 24,5                    |
| 10800                   | 78,4 | 26,7                    | 22,3                    |
| 9820                    | 88,1 | 21,7                    | 19,9                    |
| 9520                    | 98,4 | 18,9                    | 17,8                    |
| 9700                    | 113  | 16,8                    | 15,5                    |
| 11300                   | 122  | 18,0                    | 14,3                    |

## B3H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17600                   | 27,7 | 124                     | 63,2                    |
| 18100                   | 31,5 | 112                     | 55,6                    |
| 18100                   | 35,0 | 101                     | 50,0                    |
| 18700                   | 40,9 | 88,9                    | 42,7                    |
| 18900                   | 45,2 | 81,6                    | 38,8                    |
| 19000                   | 50,5 | 73,2                    | 34,6                    |
| 19400                   | 55,4 | 68,3                    | 31,6                    |
| 19800                   | 63,8 | 60,3                    | 27,4                    |
| 20100                   | 72,0 | 54,3                    | 24,3                    |
| 20100                   | 80,0 | 49,1                    | 21,9                    |
| 20700                   | 91,6 | 44,1                    | 19,1                    |
| 20800                   | 102  | 39,9                    | 17,2                    |
| 21300                   | 112  | 36,9                    | 15,6                    |
| 19600                   | 125  | 30,6                    | 14,0                    |

## B3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33100                   | 28,1 | 230                     | 62,3                    |
| 34300                   | 31,1 | 215                     | 56,3                    |
| 34000                   | 34,8 | 190                     | 50,3                    |
| 37700                   | 40,4 | 182                     | 43,3                    |
| 37700                   | 45,3 | 162                     | 38,7                    |
| 40900                   | 48,6 | 164                     | 36,0                    |
| 40100                   | 56,1 | 139                     | 31,2                    |
| 42100                   | 62,9 | 130                     | 27,8                    |
| 41300                   | 72,6 | 111                     | 24,1                    |
| 37400                   | 81,4 | 89,6                    | 21,5                    |
| 42100                   | 89,1 | 92,2                    | 19,6                    |
| 43100                   | 103  | 81,6                    | 17,0                    |
| 39400                   | 115  | 66,6                    | 15,2                    |
| 38800                   | 125  | 60,6                    | 14,0                    |

## B3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12900                   | 27,2 | 92,6                    | 64,3                    |
| 14100                   | 30,1 | 91,5                    | 58,2                    |
| 13700                   | 33,5 | 79,5                    | 52,2                    |
| 14200                   | 38,0 | 72,8                    | 46,0                    |
| 14100                   | 42,4 | 64,8                    | 41,3                    |
| 14300                   | 49,4 | 56,3                    | 35,4                    |
| 14600                   | 55,2 | 51,5                    | 31,7                    |
| 14400                   | 65,0 | 43,1                    | 26,9                    |
| 15100                   | 72,4 | 40,6                    | 24,2                    |
| 13500                   | 79,9 | 33,0                    | 21,9                    |
| 11600                   | 90,4 | 25,0                    | 19,4                    |
| 13000                   | 101  | 25,0                    | 17,3                    |
| 14400                   | 113  | 24,9                    | 15,5                    |
| 13700                   | 125  | 21,4                    | 14,0                    |

## B3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27800                   | 27,5 | 197                     | 63,7                    |
| 26000                   | 30,5 | 166                     | 57,4                    |
| 26500                   | 35,7 | 144                     | 49,0                    |
| 27400                   | 38,7 | 138                     | 45,2                    |
| 27600                   | 42,9 | 125                     | 40,8                    |
| 28100                   | 50,3 | 109                     | 34,8                    |
| 28400                   | 55,8 | 99,1                    | 31,3                    |
| 28200                   | 62,9 | 87,6                    | 27,8                    |
| 28500                   | 69,7 | 79,7                    | 25,1                    |
| 28400                   | 79,1 | 69,9                    | 22,1                    |
| 28600                   | 89,1 | 62,6                    | 19,6                    |
| 28500                   | 98,8 | 56,2                    | 17,7                    |
| 28800                   | 111  | 50,4                    | 15,7                    |
| 24500                   | 124  | 38,6                    | 14,1                    |

## B3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 67100                   | 26,9 | 486                     | 65,1                    |
| 70600                   | 30,2 | 455                     | 57,9                    |
| 71500                   | 35,0 | 399                     | 50,0                    |
| 78400                   | 39,3 | 389                     | 44,5                    |
| 78400                   | 44,0 | 347                     | 39,7                    |
| 78400                   | 48,6 | 315                     | 36,0                    |
| 78400                   | 54,6 | 280                     | 32,1                    |
| 78400                   | 63,8 | 240                     | 27,4                    |
| 78400                   | 71,7 | 213                     | 24,4                    |
| 78400                   | 79,9 | 191                     | 21,9                    |
| 78400                   | 90,4 | 169                     | 19,4                    |
| 78400                   | 102  | 150                     | 17,2                    |
| 78400                   | 113  | 135                     | 15,4                    |
| 76500                   | 128  | 117                     | 13,7                    |

14.1 BH GEAR REDUCER - 1750 rpm

B4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 12400                   | 123 | 20,0                    | 14,2        |
| 11800                   | 135 | 17,4                    | 12,9        |
| 13000                   | 161 | 16,1                    | 10,9        |
| 12600                   | 176 | 14,2                    | 9,94        |
| 10600                   | 197 | 10,7                    | 8,88        |
| 10800                   | 227 | 9,48                    | 7,70        |
| 12000                   | 253 | 9,43                    | 6,93        |
| 12700                   | 277 | 9,14                    | 6,32        |
| 11100                   | 317 | 6,96                    | 5,53        |
| 11200                   | 347 | 6,43                    | 5,05        |
| 12300                   | 380 | 6,42                    | 4,60        |
| 12500                   | 432 | 5,78                    | 4,05        |
| 10800                   | 487 | 4,40                    | 3,60        |
| 11900                   | 541 | 4,39                    | 3,24        |
| 13000                   | 593 | 4,38                    | 2,95        |

B4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 24500                   | 125 | 38,9                    | 13,9        |
| 23800                   | 146 | 32,4                    | 12,0        |
| 24100                   | 161 | 29,8                    | 10,9        |
| 24800                   | 179 | 27,6                    | 9,80        |
| 24800                   | 208 | 23,8                    | 8,41        |
| 25200                   | 230 | 21,8                    | 7,62        |
| 25000                   | 256 | 19,4                    | 6,83        |
| 25800                   | 282 | 18,3                    | 6,22        |
| 25100                   | 314 | 15,9                    | 5,57        |
| 26300                   | 366 | 14,3                    | 4,78        |
| 25100                   | 407 | 12,3                    | 4,30        |
| 22500                   | 444 | 10,1                    | 3,94        |
| 25900                   | 490 | 10,5                    | 3,57        |
| 27800                   | 571 | 9,71                    | 3,07        |
| 26600                   | 634 | 8,35                    | 2,76        |

B4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 40500                   | 125 | 64,8                    | 14,0        |
| 44100                   | 144 | 61,0                    | 12,2        |
| 39200                   | 154 | 50,8                    | 11,4        |
| 43600                   | 183 | 47,4                    | 9,55        |
| 40700                   | 198 | 40,8                    | 8,82        |
| 44400                   | 224 | 39,5                    | 7,81        |
| 40900                   | 259 | 31,5                    | 6,76        |
| 41000                   | 275 | 29,6                    | 6,35        |
| 44700                   | 309 | 28,9                    | 5,67        |
| 41200                   | 356 | 23,0                    | 4,91        |
| 41700                   | 403 | 20,6                    | 4,34        |
| 42200                   | 452 | 18,6                    | 3,87        |
| 46300                   | 481 | 19,2                    | 3,64        |
| 44800                   | 556 | 16,1                    | 3,15        |
| 44300                   | 623 | 14,2                    | 2,81        |

B4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 16100                   | 128 | 25,0                    | 13,7        |
| 14900                   | 143 | 20,7                    | 12,2        |
| 16800                   | 160 | 20,9                    | 10,9        |
| 14900                   | 181 | 16,4                    | 9,65        |
| 16900                   | 202 | 16,6                    | 8,65        |
| 16900                   | 221 | 15,2                    | 7,91        |
| 15100                   | 251 | 12,0                    | 6,98        |
| 17000                   | 280 | 12,1                    | 6,26        |
| 16300                   | 315 | 10,3                    | 5,55        |
| 16400                   | 349 | 9,35                    | 5,01        |
| 15300                   | 391 | 7,79                    | 4,48        |
| 17500                   | 436 | 7,98                    | 4,01        |
| 14900                   | 481 | 6,16                    | 3,64        |
| 18200                   | 573 | 6,33                    | 3,06        |
| 15600                   | 632 | 4,92                    | 2,77        |

B4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 29500                   | 123 | 47,8                    | 14,2        |
| 29100                   | 134 | 43,2                    | 13,0        |
| 29700                   | 160 | 36,9                    | 10,9        |
| 29800                   | 183 | 32,3                    | 9,55        |
| 29400                   | 200 | 29,2                    | 8,75        |
| 29600                   | 222 | 26,6                    | 7,89        |
| 29500                   | 250 | 23,5                    | 7,01        |
| 29800                   | 277 | 21,4                    | 6,32        |
| 30000                   | 312 | 19,2                    | 5,61        |
| 29900                   | 360 | 16,5                    | 4,86        |
| 30000                   | 405 | 14,8                    | 4,32        |
| 30700                   | 450 | 13,6                    | 3,89        |
| 31000                   | 506 | 12,2                    | 3,46        |
| 31600                   | 562 | 11,2                    | 3,12        |
| 35100                   | 633 | 11,0                    | 2,77        |

B4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 79700                   | 130 | 122                     | 13,4        |
| 79700                   | 147 | 108                     | 11,9        |
| 79700                   | 170 | 93,6                    | 10,3        |
| 79700                   | 181 | 87,7                    | 9,67        |
| 79700                   | 203 | 78,0                    | 8,60        |
| 79700                   | 225 | 70,4                    | 7,76        |
| 79700                   | 253 | 62,6                    | 6,91        |
| 79700                   | 280 | 56,6                    | 6,24        |
| 79700                   | 309 | 51,3                    | 5,66        |
| 79700                   | 348 | 45,7                    | 5,04        |
| 79700                   | 395 | 40,2                    | 4,43        |
| 79700                   | 440 | 36,0                    | 3,97        |
| 79700                   | 482 | 32,9                    | 3,63        |
| 79700                   | 542 | 29,3                    | 3,23        |
| 79700                   | 604 | 26,3                    | 2,90        |

## 14.2 BH GEAR REDUCER - 1400 rpm

## B2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6070                    | 5,27 | 178                     | 266                     |
| 7080                    | 6,16 | 177                     | 227                     |
| 7870                    | 6,85 | 177                     | 204                     |
| 8650                    | 7,53 | 177                     | 186                     |
| 9980                    | 8,70 | 177                     | 161                     |
| 9880                    | 9,67 | 158                     | 145                     |
| 8100                    | 11,3 | 111                     | 124                     |
| 9000                    | 12,6 | 110                     | 111                     |
| 9670                    | 13,8 | 108                     | 102                     |
| 8700                    | 15,5 | 86,8                    | 90,5                    |
| 7730                    | 17,3 | 69,0                    | 81,0                    |
| 7350                    | 19,6 | 57,9                    | 71,4                    |
| 8050                    | 21,5 | 57,8                    | 65,2                    |
| 8950                    | 24,1 | 57,3                    | 58,0                    |

## B2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11800                   | 5,41 | 337                     | 259                     |
| 13600                   | 6,11 | 342                     | 229                     |
| 15000                   | 6,71 | 344                     | 209                     |
| 16300                   | 7,70 | 327                     | 182                     |
| 17400                   | 8,61 | 312                     | 163                     |
| 17000                   | 9,51 | 276                     | 147                     |
| 15800                   | 11,1 | 220                     | 126                     |
| 15400                   | 12,4 | 192                     | 113                     |
| 16100                   | 14,4 | 172                     | 97,2                    |
| 15500                   | 16,0 | 149                     | 87,5                    |
| 14500                   | 17,7 | 126                     | 79,1                    |
| 14500                   | 20,4 | 109                     | 68,6                    |
| 15300                   | 22,7 | 104                     | 61,7                    |
| 15100                   | 25,1 | 92,9                    | 55,8                    |

## B2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23000                   | 5,41 | 656                     | 259                     |
| 26000                   | 5,98 | 670                     | 234                     |
| 27000                   | 6,74 | 618                     | 208                     |
| 27500                   | 7,50 | 565                     | 187                     |
| 28000                   | 8,67 | 498                     | 161                     |
| 28500                   | 9,49 | 463                     | 148                     |
| 29000                   | 11,0 | 408                     | 128                     |
| 29500                   | 12,3 | 369                     | 113                     |
| 30000                   | 14,3 | 325                     | 98,2                    |
| 31000                   | 16,0 | 299                     | 87,6                    |
| 30000                   | 17,3 | 268                     | 80,9                    |
| 26800                   | 20,2 | 205                     | 69,3                    |
| 29900                   | 22,6 | 204                     | 61,9                    |
| 32000                   | 24,5 | 202                     | 57,1                    |

## B2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8780                    | 5,44 | 249                     | 257                     |
| 9950                    | 6,16 | 249                     | 227                     |
| 10800                   | 6,68 | 249                     | 210                     |
| 12100                   | 7,50 | 249                     | 187                     |
| 13000                   | 8,63 | 232                     | 162                     |
| 12900                   | 9,67 | 206                     | 145                     |
| 12200                   | 10,8 | 174                     | 130                     |
| 12300                   | 12,6 | 151                     | 111                     |
| 12300                   | 14,0 | 135                     | 99,8                    |
| 11900                   | 15,5 | 118                     | 90,5                    |
| 9840                    | 17,3 | 87,8                    | 81,0                    |
| 10100                   | 19,9 | 78,4                    | 70,5                    |
| 11200                   | 21,9 | 78,5                    | 63,8                    |
| 10300                   | 24,5 | 64,9                    | 57,1                    |

## B2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18200                   | 5,44 | 516                     | 257                     |
| 20400                   | 6,04 | 521                     | 232                     |
| 23300                   | 6,82 | 526                     | 205                     |
| 24700                   | 7,89 | 483                     | 177                     |
| 24100                   | 8,70 | 428                     | 161                     |
| 23500                   | 9,49 | 381                     | 147                     |
| 22200                   | 11,3 | 303                     | 124                     |
| 24100                   | 12,3 | 301                     | 113                     |
| 22700                   | 13,7 | 256                     | 102                     |
| 22400                   | 15,4 | 224                     | 90,7                    |
| 20000                   | 17,5 | 176                     | 80,0                    |
| 21500                   | 19,4 | 171                     | 72,1                    |
| 22000                   | 21,9 | 155                     | 64,0                    |
| 19100                   | 24,3 | 122                     | 57,6                    |

## B2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 46000                   | 5,52 | 1290                    | 253                     |
| 48000                   | 5,98 | 1240                    | 234                     |
| 51000                   | 6,85 | 1150                    | 204                     |
| 52500                   | 7,55 | 1070                    | 185                     |
| 62000                   | 8,61 | 1110                    | 163                     |
| 59700                   | 9,49 | 970                     | 147                     |
| 55000                   | 10,7 | 795                     | 131                     |
| 55000                   | 12,3 | 687                     | 113                     |
| 55000                   | 13,9 | 611                     | 101                     |
| 54500                   | 15,5 | 543                     | 90,5                    |
| 57000                   | 17,4 | 505                     | 80,3                    |
| 52500                   | 19,7 | 412                     | 71,2                    |
| 57000                   | 21,9 | 401                     | 63,8                    |
| 60000                   | 24,7 | 375                     | 56,7                    |

B3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9580                    | 29,1 | 51,3                    | 48,0        |
| 9550                    | 32,7 | 45,5                    | 42,8        |
| 10400                   | 36,3 | 44,6                    | 38,5        |
| 11000                   | 40,4 | 42,6                    | 34,7        |
| 10400                   | 44,3 | 36,6                    | 31,6        |
| 10100                   | 49,7 | 31,7                    | 28,2        |
| 10500                   | 57,6 | 28,5                    | 24,3        |
| 10500                   | 64,6 | 25,2                    | 21,7        |
| 10000                   | 71,6 | 21,9                    | 19,6        |
| 11000                   | 78,4 | 21,8                    | 17,8        |
| 10000                   | 88,1 | 17,8                    | 15,9        |
| 9720                    | 98,4 | 15,4                    | 14,2        |
| 9900                    | 113  | 13,7                    | 12,4        |
| 11500                   | 122  | 14,7                    | 11,4        |

B3H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 18000                   | 27,7 | 101                     | 50,6        |
| 18500                   | 31,5 | 91,5                    | 44,5        |
| 18500                   | 35,0 | 82,5                    | 40,0        |
| 19100                   | 40,9 | 72,6                    | 34,2        |
| 19300                   | 45,2 | 66,6                    | 31,0        |
| 19400                   | 50,5 | 59,8                    | 27,7        |
| 19800                   | 55,4 | 55,8                    | 25,3        |
| 20200                   | 63,8 | 49,3                    | 21,9        |
| 20500                   | 72,0 | 44,3                    | 19,4        |
| 20600                   | 80,0 | 40,1                    | 17,5        |
| 21100                   | 91,6 | 36,0                    | 15,3        |
| 21200                   | 102  | 32,5                    | 13,8        |
| 21700                   | 112  | 30,1                    | 12,5        |
| 20000                   | 125  | 25,0                    | 11,2        |

B3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 33800                   | 28,1 | 188                     | 49,9        |
| 35000                   | 31,1 | 176                     | 45,1        |
| 34700                   | 34,8 | 155                     | 40,2        |
| 38500                   | 40,4 | 149                     | 34,6        |
| 38500                   | 45,3 | 133                     | 30,9        |
| 41700                   | 48,6 | 134                     | 28,8        |
| 40900                   | 56,1 | 114                     | 25,0        |
| 42900                   | 62,9 | 106                     | 22,3        |
| 42100                   | 72,6 | 90,4                    | 19,3        |
| 38200                   | 81,4 | 73,1                    | 17,2        |
| 43000                   | 89,1 | 75,3                    | 15,7        |
| 44000                   | 103  | 66,7                    | 13,6        |
| 40200                   | 115  | 54,4                    | 12,1        |
| 39600                   | 125  | 49,5                    | 11,2        |

B3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 13200                   | 27,2 | 75,7                    | 51,5        |
| 14400                   | 30,1 | 74,7                    | 46,6        |
| 14000                   | 33,5 | 64,9                    | 41,7        |
| 14500                   | 38,0 | 59,4                    | 36,8        |
| 14400                   | 42,4 | 52,9                    | 33,0        |
| 14600                   | 49,4 | 46,0                    | 28,3        |
| 14900                   | 55,2 | 42,0                    | 25,4        |
| 14700                   | 65,0 | 35,2                    | 21,6        |
| 15400                   | 72,4 | 33,2                    | 19,3        |
| 13800                   | 79,9 | 27,0                    | 17,5        |
| 11800                   | 90,4 | 20,4                    | 15,5        |
| 13300                   | 101  | 20,4                    | 13,8        |
| 14700                   | 113  | 20,3                    | 12,4        |
| 14000                   | 125  | 17,5                    | 11,2        |

B3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 28300                   | 27,5 | 161                     | 50,9        |
| 26500                   | 30,5 | 136                     | 45,9        |
| 27000                   | 35,7 | 118                     | 39,2        |
| 28000                   | 38,7 | 113                     | 36,2        |
| 28100                   | 42,9 | 102                     | 32,6        |
| 28700                   | 50,3 | 88,9                    | 27,8        |
| 29000                   | 55,8 | 80,9                    | 25,1        |
| 28800                   | 62,9 | 71,5                    | 22,3        |
| 29100                   | 69,7 | 65,1                    | 20,1        |
| 28900                   | 79,1 | 57,0                    | 17,7        |
| 29200                   | 89,1 | 51,2                    | 15,7        |
| 29100                   | 98,8 | 45,9                    | 14,2        |
| 29400                   | 111  | 41,1                    | 12,6        |
| 25000                   | 124  | 31,5                    | 11,3        |

B3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 68500                   | 26,9 | 397                     | 52,0        |
| 72000                   | 30,2 | 371                     | 46,3        |
| 73000                   | 35,0 | 325                     | 40,0        |
| 80000                   | 39,3 | 317                     | 35,6        |
| 80000                   | 44,0 | 283                     | 31,8        |
| 80000                   | 48,6 | 257                     | 28,8        |
| 80000                   | 54,6 | 229                     | 25,6        |
| 80000                   | 63,8 | 196                     | 21,9        |
| 80000                   | 71,7 | 174                     | 19,5        |
| 80000                   | 79,9 | 156                     | 17,5        |
| 80000                   | 90,4 | 138                     | 15,5        |
| 80000                   | 102  | 123                     | 13,8        |
| 80000                   | 113  | 110                     | 12,4        |
| 78000                   | 128  | 95,3                    | 11,0        |

## 14.2 BH GEAR REDUCER - 1400 rpm

## B4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 12500                   | 123 | 16,1                    | 11,3                    |
| 11900                   | 135 | 14,0                    | 10,3                    |
| 13100                   | 161 | 13,0                    | 8,72                    |
| 12600                   | 176 | 11,4                    | 7,95                    |
| 10600                   | 197 | 8,61                    | 7,11                    |
| 10900                   | 227 | 7,62                    | 6,16                    |
| 12000                   | 253 | 7,58                    | 5,54                    |
| 12800                   | 277 | 7,35                    | 5,06                    |
| 11100                   | 317 | 5,59                    | 4,42                    |
| 11300                   | 347 | 5,17                    | 4,04                    |
| 12300                   | 380 | 5,16                    | 3,68                    |
| 12600                   | 432 | 4,65                    | 3,24                    |
| 10800                   | 487 | 3,54                    | 2,88                    |
| 12000                   | 541 | 3,53                    | 2,59                    |
| 13100                   | 593 | 3,52                    | 2,36                    |

## B4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 24600                   | 125 | 31,3                    | 11,2                    |
| 23900                   | 146 | 26,1                    | 9,58                    |
| 24200                   | 161 | 23,9                    | 8,68                    |
| 24900                   | 179 | 22,2                    | 7,84                    |
| 24900                   | 208 | 19,1                    | 6,73                    |
| 25300                   | 230 | 17,5                    | 6,10                    |
| 25100                   | 256 | 15,6                    | 5,46                    |
| 25900                   | 282 | 14,7                    | 4,97                    |
| 25200                   | 314 | 12,8                    | 4,46                    |
| 26400                   | 366 | 11,5                    | 3,82                    |
| 25200                   | 407 | 9,86                    | 3,44                    |
| 22600                   | 444 | 8,12                    | 3,16                    |
| 26000                   | 490 | 8,47                    | 2,86                    |
| 27900                   | 571 | 7,80                    | 2,45                    |
| 26700                   | 634 | 6,71                    | 2,21                    |

## B4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 40700                   | 125 | 52,0                    | 11,2                    |
| 44300                   | 144 | 49,0                    | 9,72                    |
| 39300                   | 154 | 40,8                    | 9,11                    |
| 43800                   | 183 | 38,1                    | 7,64                    |
| 40800                   | 198 | 32,8                    | 7,06                    |
| 44600                   | 224 | 31,7                    | 6,25                    |
| 41100                   | 259 | 25,3                    | 5,41                    |
| 41100                   | 275 | 23,8                    | 5,08                    |
| 44900                   | 309 | 23,2                    | 4,54                    |
| 41400                   | 356 | 18,5                    | 3,93                    |
| 41900                   | 403 | 16,5                    | 3,47                    |
| 42400                   | 452 | 14,9                    | 3,10                    |
| 46500                   | 481 | 15,4                    | 2,91                    |
| 45000                   | 556 | 12,9                    | 2,52                    |
| 44500                   | 623 | 11,4                    | 2,25                    |

## B4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 16100                   | 128 | 20,1                    | 10,9                    |
| 14900                   | 143 | 16,6                    | 9,76                    |
| 16900                   | 160 | 16,8                    | 8,75                    |
| 15000                   | 181 | 13,2                    | 7,72                    |
| 16900                   | 202 | 13,3                    | 6,92                    |
| 17000                   | 221 | 12,2                    | 6,33                    |
| 15100                   | 251 | 9,61                    | 5,58                    |
| 17100                   | 280 | 9,71                    | 5,01                    |
| 16400                   | 315 | 8,27                    | 4,44                    |
| 16500                   | 349 | 7,51                    | 4,01                    |
| 15400                   | 391 | 6,26                    | 3,58                    |
| 17600                   | 436 | 6,42                    | 3,21                    |
| 15000                   | 481 | 4,95                    | 2,91                    |
| 18300                   | 573 | 5,09                    | 2,44                    |
| 15700                   | 632 | 3,95                    | 2,21                    |

## B4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 29600                   | 123 | 38,4                    | 11,4                    |
| 29300                   | 134 | 34,7                    | 10,4                    |
| 29800                   | 160 | 29,7                    | 8,75                    |
| 29900                   | 183 | 26,0                    | 7,64                    |
| 29500                   | 200 | 23,5                    | 7,00                    |
| 29800                   | 222 | 21,4                    | 6,31                    |
| 29600                   | 250 | 18,9                    | 5,61                    |
| 29900                   | 277 | 17,2                    | 5,05                    |
| 30200                   | 312 | 15,4                    | 4,49                    |
| 30000                   | 360 | 13,3                    | 3,89                    |
| 30200                   | 405 | 11,9                    | 3,45                    |
| 30800                   | 450 | 10,9                    | 3,11                    |
| 31100                   | 506 | 9,80                    | 2,76                    |
| 31700                   | 562 | 8,99                    | 2,49                    |
| 35200                   | 633 | 8,87                    | 2,21                    |

## B4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 80000                   | 130 | 97,8                    | 10,7                    |
| 80000                   | 147 | 87,0                    | 9,55                    |
| 80000                   | 170 | 75,2                    | 8,26                    |
| 80000                   | 181 | 70,4                    | 7,74                    |
| 80000                   | 203 | 62,7                    | 6,88                    |
| 80000                   | 225 | 56,6                    | 6,21                    |
| 80000                   | 253 | 50,3                    | 5,52                    |
| 80000                   | 280 | 45,5                    | 4,99                    |
| 80000                   | 309 | 41,2                    | 4,53                    |
| 80000                   | 348 | 36,7                    | 4,03                    |
| 80000                   | 395 | 32,3                    | 3,54                    |
| 80000                   | 440 | 28,9                    | 3,18                    |
| 80000                   | 482 | 26,4                    | 2,90                    |
| 80000                   | 542 | 23,5                    | 2,58                    |
| 80000                   | 604 | 21,1                    | 2,32                    |

## 14.3 BH GEAR REDUCER - 1140 rpm

## B2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6110                    | 5,27 | 146                     | 216                     |
| 7130                    | 6,16 | 145                     | 185                     |
| 7930                    | 6,85 | 145                     | 166                     |
| 8710                    | 7,53 | 145                     | 151                     |
| 10100                   | 8,70 | 145                     | 131                     |
| 9950                    | 9,67 | 129                     | 118                     |
| 8160                    | 11,3 | 90,7                    | 101                     |
| 9070                    | 12,6 | 90,7                    | 90,7                    |
| 9740                    | 13,8 | 88,8                    | 82,7                    |
| 8760                    | 15,5 | 71,2                    | 73,7                    |
| 7790                    | 17,3 | 56,6                    | 65,9                    |
| 7400                    | 19,6 | 47,4                    | 58,2                    |
| 8110                    | 21,5 | 47,4                    | 53,1                    |
| 9020                    | 24,1 | 47,0                    | 47,3                    |

## B2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11900                   | 5,41 | 276                     | 211                     |
| 13700                   | 6,11 | 281                     | 187                     |
| 15100                   | 6,71 | 282                     | 170                     |
| 16400                   | 7,70 | 268                     | 148                     |
| 17500                   | 8,61 | 256                     | 132                     |
| 17200                   | 9,51 | 227                     | 120                     |
| 15900                   | 11,1 | 181                     | 103                     |
| 15500                   | 12,4 | 158                     | 92,2                    |
| 16200                   | 14,4 | 141                     | 79,1                    |
| 15600                   | 16,0 | 123                     | 71,3                    |
| 14600                   | 17,7 | 104                     | 64,4                    |
| 14600                   | 20,4 | 89,8                    | 55,8                    |
| 15400                   | 22,7 | 85,4                    | 50,3                    |
| 15200                   | 25,1 | 76,3                    | 45,4                    |

## B2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23600                   | 5,41 | 547                     | 211                     |
| 26600                   | 5,98 | 559                     | 191                     |
| 27600                   | 6,74 | 515                     | 169                     |
| 28200                   | 7,50 | 472                     | 152                     |
| 28700                   | 8,67 | 415                     | 131                     |
| 29200                   | 9,49 | 386                     | 120                     |
| 29700                   | 11,0 | 340                     | 104                     |
| 30200                   | 12,3 | 307                     | 92,3                    |
| 30700                   | 14,3 | 271                     | 79,9                    |
| 31700                   | 16,0 | 250                     | 71,4                    |
| 30700                   | 17,3 | 223                     | 65,9                    |
| 27400                   | 20,2 | 171                     | 56,4                    |
| 30600                   | 22,6 | 170                     | 50,4                    |
| 32800                   | 24,5 | 168                     | 46,5                    |

## B2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8850                    | 5,44 | 205                     | 210                     |
| 10000                   | 6,16 | 204                     | 185                     |
| 10900                   | 6,68 | 204                     | 171                     |
| 12200                   | 7,50 | 204                     | 152                     |
| 13100                   | 8,63 | 191                     | 132                     |
| 13000                   | 9,67 | 169                     | 118                     |
| 12300                   | 10,8 | 143                     | 106                     |
| 12400                   | 12,6 | 124                     | 90,7                    |
| 12300                   | 14,0 | 111                     | 81,3                    |
| 11900                   | 15,5 | 97,0                    | 73,7                    |
| 9910                    | 17,3 | 72,0                    | 65,9                    |
| 10200                   | 19,9 | 64,4                    | 57,4                    |
| 11200                   | 21,9 | 64,3                    | 52,0                    |
| 10400                   | 24,5 | 53,2                    | 46,5                    |

## B2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18300                   | 5,44 | 423                     | 210                     |
| 20600                   | 6,04 | 428                     | 189                     |
| 23500                   | 6,82 | 432                     | 167                     |
| 24900                   | 7,89 | 397                     | 144                     |
| 24300                   | 8,70 | 351                     | 131                     |
| 23600                   | 9,49 | 313                     | 120                     |
| 22400                   | 11,3 | 248                     | 101                     |
| 24300                   | 12,3 | 247                     | 92,3                    |
| 22900                   | 13,7 | 210                     | 83,2                    |
| 22600                   | 15,4 | 184                     | 73,9                    |
| 20200                   | 17,5 | 145                     | 65,1                    |
| 21700                   | 19,4 | 140                     | 58,7                    |
| 22200                   | 21,9 | 127                     | 52,1                    |
| 19300                   | 24,3 | 99,7                    | 46,9                    |

## B2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 46400                   | 5,52 | 1050                    | 206                     |
| 48400                   | 5,98 | 1020                    | 191                     |
| 51400                   | 6,85 | 943                     | 166                     |
| 52900                   | 7,55 | 881                     | 151                     |
| 62500                   | 8,61 | 912                     | 132                     |
| 60200                   | 9,49 | 796                     | 120                     |
| 55400                   | 10,7 | 653                     | 107                     |
| 55400                   | 12,3 | 564                     | 92,3                    |
| 55400                   | 13,9 | 502                     | 82,1                    |
| 54900                   | 15,5 | 446                     | 73,7                    |
| 57500                   | 17,4 | 414                     | 65,4                    |
| 52900                   | 19,7 | 338                     | 57,9                    |
| 57500                   | 21,9 | 329                     | 52,0                    |
| 60500                   | 24,7 | 308                     | 46,1                    |

## 14.3 BH GEAR REDUCER - 1140 rpm

## B3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9670                    | 29,1 | 42,1                    | 39,1                    |
| 9640                    | 32,7 | 37,4                    | 34,8                    |
| 10500                   | 36,3 | 36,7                    | 31,4                    |
| 11100                   | 40,4 | 35,0                    | 28,2                    |
| 10500                   | 44,3 | 30,1                    | 25,8                    |
| 10200                   | 49,7 | 26,0                    | 22,9                    |
| 10600                   | 57,6 | 23,4                    | 19,8                    |
| 10600                   | 64,6 | 20,7                    | 17,6                    |
| 10100                   | 71,6 | 18,0                    | 15,9                    |
| 11100                   | 78,4 | 17,9                    | 14,5                    |
| 10100                   | 88,1 | 14,6                    | 12,9                    |
| 9810                    | 98,4 | 12,7                    | 11,6                    |
| 9990                    | 113  | 11,3                    | 10,1                    |
| 11600                   | 122  | 12,1                    | 9,32                    |

## B3H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18200                   | 27,7 | 83,3                    | 41,2                    |
| 18600                   | 31,5 | 75,2                    | 36,2                    |
| 18700                   | 35,0 | 67,8                    | 32,6                    |
| 19300                   | 40,9 | 59,7                    | 27,8                    |
| 19500                   | 45,2 | 54,8                    | 25,2                    |
| 19600                   | 50,5 | 49,1                    | 22,6                    |
| 20000                   | 55,4 | 45,8                    | 20,6                    |
| 20400                   | 63,8 | 40,5                    | 17,9                    |
| 20700                   | 72,0 | 36,5                    | 15,8                    |
| 20800                   | 80,0 | 33,0                    | 14,3                    |
| 21300                   | 91,6 | 29,6                    | 12,5                    |
| 21400                   | 102  | 26,8                    | 11,2                    |
| 21900                   | 112  | 24,8                    | 10,2                    |
| 20200                   | 125  | 20,6                    | 9,14                    |

## B3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 34100                   | 28,1 | 154                     | 40,6                    |
| 35400                   | 31,1 | 144                     | 36,7                    |
| 35100                   | 34,8 | 128                     | 32,7                    |
| 38900                   | 40,4 | 122                     | 28,2                    |
| 38900                   | 45,3 | 109                     | 25,2                    |
| 42100                   | 48,6 | 110                     | 23,5                    |
| 41300                   | 56,1 | 93,5                    | 20,3                    |
| 43300                   | 62,9 | 87,5                    | 18,1                    |
| 42500                   | 72,6 | 74,4                    | 15,7                    |
| 38500                   | 81,4 | 60,1                    | 14,0                    |
| 43400                   | 89,1 | 61,9                    | 12,8                    |
| 44500                   | 103  | 54,8                    | 11,1                    |
| 40600                   | 115  | 44,7                    | 9,89                    |
| 40000                   | 125  | 40,7                    | 9,14                    |

## B3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13300                   | 27,2 | 62,2                    | 41,9                    |
| 14600                   | 30,1 | 61,4                    | 37,9                    |
| 14100                   | 33,5 | 53,3                    | 34,0                    |
| 14600                   | 38,0 | 48,9                    | 30,0                    |
| 14500                   | 42,4 | 43,5                    | 26,9                    |
| 14700                   | 49,4 | 37,8                    | 23,1                    |
| 15000                   | 55,2 | 34,6                    | 20,7                    |
| 14800                   | 65,0 | 29,0                    | 17,6                    |
| 15600                   | 72,4 | 27,3                    | 15,7                    |
| 14000                   | 79,9 | 22,2                    | 14,3                    |
| 12000                   | 90,4 | 16,8                    | 12,6                    |
| 13400                   | 101  | 16,8                    | 11,3                    |
| 14800                   | 113  | 16,7                    | 10,1                    |
| 14100                   | 125  | 14,4                    | 9,15                    |

## B3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 28600                   | 27,5 | 132                     | 41,5                    |
| 26800                   | 30,5 | 111                     | 37,4                    |
| 27300                   | 35,7 | 96,9                    | 31,9                    |
| 28300                   | 38,7 | 92,8                    | 29,5                    |
| 28400                   | 42,9 | 84,1                    | 26,6                    |
| 29000                   | 50,3 | 73,1                    | 22,6                    |
| 29200                   | 55,8 | 66,5                    | 20,4                    |
| 29100                   | 62,9 | 58,8                    | 18,1                    |
| 29400                   | 69,7 | 53,5                    | 16,4                    |
| 29200                   | 79,1 | 46,9                    | 14,4                    |
| 29500                   | 89,1 | 42,1                    | 12,8                    |
| 29400                   | 98,8 | 37,7                    | 11,5                    |
| 29600                   | 111  | 33,8                    | 10,2                    |
| 25300                   | 124  | 25,9                    | 9,22                    |

## B3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 69200                   | 26,9 | 327                     | 42,4                    |
| 72700                   | 30,2 | 305                     | 37,7                    |
| 73700                   | 35,0 | 268                     | 32,6                    |
| 80800                   | 39,3 | 261                     | 29,0                    |
| 80800                   | 44,0 | 233                     | 25,9                    |
| 80800                   | 48,6 | 211                     | 23,5                    |
| 80800                   | 54,6 | 188                     | 20,9                    |
| 80800                   | 63,8 | 161                     | 17,9                    |
| 80800                   | 71,7 | 143                     | 15,9                    |
| 80800                   | 79,9 | 128                     | 14,3                    |
| 80800                   | 90,4 | 113                     | 12,6                    |
| 80800                   | 102  | 101                     | 11,2                    |
| 80800                   | 113  | 90,6                    | 10,1                    |
| 78800                   | 128  | 78,4                    | 8,93                    |

14.3 BH GEAR REDUCER - 1140 rpm

B4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 12500                   | 123 | 13,1                    | 9,23        |
| 11900                   | 135 | 11,4                    | 8,42        |
| 13100                   | 161 | 10,6                    | 7,10        |
| 12700                   | 176 | 9,35                    | 6,48        |
| 10700                   | 197 | 7,03                    | 5,79        |
| 10900                   | 227 | 6,23                    | 5,02        |
| 12100                   | 253 | 6,20                    | 4,51        |
| 12800                   | 277 | 6,01                    | 4,12        |
| 11200                   | 317 | 4,57                    | 3,60        |
| 11300                   | 347 | 4,23                    | 3,29        |
| 12400                   | 380 | 4,22                    | 3,00        |
| 12600                   | 432 | 3,80                    | 2,64        |
| 10900                   | 487 | 2,89                    | 2,34        |
| 12000                   | 541 | 2,89                    | 2,11        |
| 13200                   | 593 | 2,88                    | 1,92        |

B4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 24700                   | 125 | 25,6                    | 9,09        |
| 24000                   | 146 | 21,3                    | 7,80        |
| 24300                   | 161 | 19,6                    | 7,07        |
| 25000                   | 179 | 18,1                    | 6,38        |
| 25000                   | 208 | 15,6                    | 5,48        |
| 25400                   | 230 | 14,4                    | 4,97        |
| 25200                   | 256 | 12,7                    | 4,45        |
| 26000                   | 282 | 12,0                    | 4,05        |
| 25300                   | 314 | 10,4                    | 3,63        |
| 26500                   | 366 | 9,41                    | 3,11        |
| 25300                   | 407 | 8,06                    | 2,80        |
| 22700                   | 444 | 6,64                    | 2,57        |
| 26100                   | 490 | 6,92                    | 2,33        |
| 28100                   | 571 | 6,38                    | 2,00        |
| 26800                   | 634 | 5,49                    | 1,80        |

B4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 40900                   | 125 | 42,6                    | 9,15        |
| 44500                   | 144 | 40,1                    | 7,92        |
| 39500                   | 154 | 33,3                    | 7,42        |
| 44000                   | 183 | 31,1                    | 6,22        |
| 41000                   | 198 | 26,8                    | 5,75        |
| 44800                   | 224 | 25,9                    | 5,09        |
| 41200                   | 259 | 20,7                    | 4,41        |
| 41300                   | 275 | 19,5                    | 4,14        |
| 45100                   | 309 | 19,0                    | 3,69        |
| 41500                   | 356 | 15,1                    | 3,20        |
| 42100                   | 403 | 13,5                    | 2,83        |
| 42600                   | 452 | 12,2                    | 2,52        |
| 46700                   | 481 | 12,6                    | 2,37        |
| 45200                   | 556 | 10,6                    | 2,05        |
| 44700                   | 623 | 9,32                    | 1,83        |

B4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 16200                   | 128 | 16,4                    | 8,90        |
| 15000                   | 143 | 13,6                    | 7,95        |
| 16900                   | 160 | 13,7                    | 7,13        |
| 15100                   | 181 | 10,8                    | 6,29        |
| 17000                   | 202 | 10,9                    | 5,64        |
| 17000                   | 221 | 9,99                    | 5,15        |
| 15200                   | 251 | 7,85                    | 4,55        |
| 17100                   | 280 | 7,94                    | 4,08        |
| 16400                   | 315 | 6,77                    | 3,62        |
| 16500                   | 349 | 6,14                    | 3,27        |
| 15400                   | 391 | 5,12                    | 2,92        |
| 17600                   | 436 | 5,25                    | 2,61        |
| 15000                   | 481 | 4,05                    | 2,37        |
| 18400                   | 573 | 4,16                    | 1,99        |
| 15700                   | 632 | 3,23                    | 1,80        |

B4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 29800                   | 123 | 31,4                    | 9,26        |
| 29400                   | 134 | 28,4                    | 8,49        |
| 29900                   | 160 | 24,3                    | 7,12        |
| 30000                   | 183 | 21,2                    | 6,22        |
| 29600                   | 200 | 19,2                    | 5,70        |
| 29900                   | 222 | 17,5                    | 5,14        |
| 29700                   | 250 | 15,4                    | 4,57        |
| 30000                   | 277 | 14,1                    | 4,12        |
| 30300                   | 312 | 12,6                    | 3,66        |
| 30200                   | 360 | 10,9                    | 3,16        |
| 30300                   | 405 | 9,69                    | 2,81        |
| 30900                   | 450 | 8,92                    | 2,53        |
| 31300                   | 506 | 8,02                    | 2,25        |
| 31800                   | 562 | 7,35                    | 2,03        |
| 35400                   | 633 | 7,25                    | 1,80        |

B4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 80400                   | 130 | 80,0                    | 8,74        |
| 80400                   | 147 | 71,1                    | 7,78        |
| 80400                   | 170 | 61,5                    | 6,72        |
| 80400                   | 181 | 57,6                    | 6,30        |
| 80400                   | 203 | 51,2                    | 5,60        |
| 80400                   | 225 | 46,3                    | 5,06        |
| 80400                   | 253 | 41,1                    | 4,50        |
| 80400                   | 280 | 37,2                    | 4,07        |
| 80400                   | 309 | 33,7                    | 3,69        |
| 80400                   | 348 | 30,0                    | 3,28        |
| 80400                   | 395 | 26,4                    | 2,89        |
| 80400                   | 440 | 23,7                    | 2,59        |
| 80400                   | 482 | 21,6                    | 2,37        |
| 80400                   | 542 | 19,2                    | 2,10        |
| 80400                   | 604 | 17,3                    | 1,89        |

## 14.4 BH GEAR REDUCER - 900 rpm

## B2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6140                    | 5,27 | 116                     | 171                     |
| 7170                    | 6,16 | 115                     | 146                     |
| 7970                    | 6,85 | 115                     | 131                     |
| 8760                    | 7,53 | 115                     | 120                     |
| 10100                   | 8,70 | 115                     | 103                     |
| 10000                   | 9,67 | 103                     | 93,1                    |
| 8200                    | 11,3 | 71,9                    | 79,6                    |
| 9110                    | 12,6 | 71,9                    | 71,6                    |
| 9790                    | 13,8 | 70,5                    | 65,3                    |
| 8810                    | 15,5 | 56,5                    | 58,2                    |
| 7830                    | 17,3 | 44,9                    | 52,1                    |
| 7440                    | 19,6 | 37,7                    | 45,9                    |
| 8150                    | 21,5 | 37,6                    | 41,9                    |
| 9060                    | 24,1 | 37,3                    | 37,3                    |

## B2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12000                   | 5,41 | 219                     | 166                     |
| 13700                   | 6,11 | 223                     | 147                     |
| 15200                   | 6,71 | 224                     | 134                     |
| 16500                   | 7,70 | 213                     | 117                     |
| 17600                   | 8,61 | 203                     | 105                     |
| 17300                   | 9,51 | 180                     | 94,7                    |
| 16000                   | 11,1 | 143                     | 81,3                    |
| 15600                   | 12,4 | 125                     | 72,8                    |
| 16300                   | 14,4 | 112                     | 62,5                    |
| 15700                   | 16,0 | 97,3                    | 56,3                    |
| 14700                   | 17,7 | 82,2                    | 50,8                    |
| 14700                   | 20,4 | 71,2                    | 44,1                    |
| 15500                   | 22,7 | 67,8                    | 39,7                    |
| 15300                   | 25,1 | 60,5                    | 35,8                    |

## B2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24000                   | 5,41 | 440                     | 166                     |
| 27100                   | 5,98 | 450                     | 150                     |
| 28200                   | 6,74 | 415                     | 134                     |
| 28700                   | 7,50 | 380                     | 120                     |
| 29200                   | 8,67 | 334                     | 104                     |
| 29800                   | 9,49 | 311                     | 94,8                    |
| 30300                   | 11,0 | 274                     | 82,1                    |
| 30800                   | 12,3 | 247                     | 72,9                    |
| 31300                   | 14,3 | 218                     | 63,1                    |
| 32400                   | 16,0 | 201                     | 56,3                    |
| 31300                   | 17,3 | 180                     | 52,0                    |
| 28000                   | 20,2 | 137                     | 44,6                    |
| 31200                   | 22,6 | 137                     | 39,8                    |
| 33400                   | 24,5 | 135                     | 36,7                    |

## B2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8890                    | 5,44 | 162                     | 166                     |
| 10100                   | 6,16 | 162                     | 146                     |
| 10900                   | 6,68 | 162                     | 135                     |
| 12300                   | 7,50 | 162                     | 120                     |
| 13200                   | 8,63 | 151                     | 104                     |
| 13100                   | 9,67 | 134                     | 93,1                    |
| 12300                   | 10,8 | 113                     | 83,5                    |
| 12500                   | 12,6 | 98,2                    | 71,6                    |
| 12400                   | 14,0 | 87,7                    | 64,2                    |
| 12000                   | 15,5 | 76,9                    | 58,2                    |
| 9960                    | 17,3 | 57,1                    | 52,1                    |
| 10200                   | 19,9 | 51,1                    | 45,3                    |
| 11300                   | 21,9 | 51,1                    | 41,0                    |
| 10400                   | 24,5 | 42,2                    | 36,7                    |

## B2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18400                   | 5,44 | 336                     | 166                     |
| 20700                   | 6,04 | 339                     | 149                     |
| 23600                   | 6,82 | 343                     | 132                     |
| 25100                   | 7,89 | 315                     | 114                     |
| 24400                   | 8,70 | 279                     | 103                     |
| 23800                   | 9,49 | 248                     | 94,8                    |
| 22500                   | 11,3 | 197                     | 79,5                    |
| 24400                   | 12,3 | 196                     | 72,9                    |
| 23000                   | 13,7 | 166                     | 65,7                    |
| 22700                   | 15,4 | 146                     | 58,3                    |
| 20300                   | 17,5 | 115                     | 51,4                    |
| 21800                   | 19,4 | 111                     | 46,4                    |
| 22300                   | 21,9 | 101                     | 41,2                    |
| 19400                   | 24,3 | 79,1                    | 37,0                    |

## B2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 46600                   | 5,52 | 837                     | 163                     |
| 48600                   | 5,98 | 806                     | 150                     |
| 51700                   | 6,85 | 748                     | 131                     |
| 53200                   | 7,55 | 699                     | 119                     |
| 62800                   | 8,61 | 724                     | 105                     |
| 60500                   | 9,49 | 632                     | 94,8                    |
| 55700                   | 10,7 | 518                     | 84,3                    |
| 55700                   | 12,3 | 448                     | 72,9                    |
| 55700                   | 13,9 | 398                     | 64,8                    |
| 55200                   | 15,5 | 354                     | 58,2                    |
| 57700                   | 17,4 | 329                     | 51,6                    |
| 53200                   | 19,7 | 268                     | 45,7                    |
| 57700                   | 21,9 | 261                     | 41,0                    |
| 60800                   | 24,7 | 244                     | 36,4                    |

## 14.4 BH GEAR REDUCER - 900 rpm

## B3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9810                    | 29,1 | 33,8                    | 30,9                    |
| 9780                    | 32,7 | 30,0                    | 27,5                    |
| 10700                   | 36,3 | 29,4                    | 24,8                    |
| 11300                   | 40,4 | 28,1                    | 22,3                    |
| 10600                   | 44,3 | 24,1                    | 20,3                    |
| 10300                   | 49,7 | 20,9                    | 18,1                    |
| 10800                   | 57,6 | 18,7                    | 15,6                    |
| 10700                   | 64,6 | 16,6                    | 13,9                    |
| 10300                   | 71,6 | 14,4                    | 12,6                    |
| 11300                   | 78,4 | 14,4                    | 11,5                    |
| 10300                   | 88,1 | 11,7                    | 10,2                    |
| 9960                    | 98,4 | 10,1                    | 9,15                    |
| 10100                   | 113  | 9,03                    | 8,00                    |
| 11800                   | 122  | 9,66                    | 7,36                    |

## B3H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18400                   | 27,7 | 66,7                    | 32,5                    |
| 18900                   | 31,5 | 60,3                    | 28,6                    |
| 19000                   | 35,0 | 54,4                    | 25,7                    |
| 19500                   | 40,9 | 47,8                    | 22,0                    |
| 19800                   | 45,2 | 43,9                    | 19,9                    |
| 19800                   | 50,5 | 39,4                    | 17,8                    |
| 20300                   | 55,4 | 36,7                    | 16,3                    |
| 20700                   | 63,8 | 32,5                    | 14,1                    |
| 21000                   | 72,0 | 29,2                    | 12,5                    |
| 21100                   | 80,0 | 26,4                    | 11,3                    |
| 21700                   | 91,6 | 23,7                    | 9,83                    |
| 21800                   | 102  | 21,4                    | 8,85                    |
| 22200                   | 112  | 19,9                    | 8,01                    |
| 20500                   | 125  | 16,5                    | 7,22                    |

## B3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 34600                   | 28,1 | 124                     | 32,1                    |
| 35900                   | 31,1 | 116                     | 29,0                    |
| 35600                   | 34,8 | 102                     | 25,9                    |
| 39500                   | 40,4 | 97,9                    | 22,3                    |
| 39400                   | 45,3 | 87,4                    | 19,9                    |
| 42700                   | 48,6 | 88,2                    | 18,5                    |
| 41900                   | 56,1 | 74,9                    | 16,0                    |
| 44000                   | 62,9 | 70,1                    | 14,3                    |
| 43200                   | 72,6 | 59,6                    | 12,4                    |
| 39100                   | 81,4 | 48,2                    | 11,1                    |
| 44100                   | 89,1 | 49,6                    | 10,1                    |
| 45100                   | 103  | 43,9                    | 8,74                    |
| 41200                   | 115  | 35,8                    | 7,81                    |
| 40600                   | 125  | 32,6                    | 7,22                    |

## B3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13500                   | 27,2 | 49,9                    | 33,1                    |
| 14800                   | 30,1 | 49,2                    | 29,9                    |
| 14300                   | 33,5 | 42,7                    | 26,8                    |
| 14900                   | 38,0 | 39,2                    | 23,7                    |
| 14700                   | 42,4 | 34,8                    | 21,2                    |
| 14900                   | 49,4 | 30,3                    | 18,2                    |
| 15200                   | 55,2 | 27,7                    | 16,3                    |
| 15000                   | 65,0 | 23,2                    | 13,9                    |
| 15800                   | 72,4 | 21,9                    | 12,4                    |
| 14200                   | 79,9 | 17,8                    | 11,3                    |
| 12100                   | 90,4 | 13,4                    | 9,95                    |
| 13600                   | 101  | 13,4                    | 8,89                    |
| 15100                   | 113  | 13,4                    | 7,97                    |
| 14300                   | 125  | 11,5                    | 7,22                    |

## B3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29000                   | 27,5 | 106                     | 32,7                    |
| 27200                   | 30,5 | 89,3                    | 29,5                    |
| 27700                   | 35,7 | 77,6                    | 25,2                    |
| 28700                   | 38,7 | 74,3                    | 23,3                    |
| 28800                   | 42,9 | 67,4                    | 21,0                    |
| 29400                   | 50,3 | 58,6                    | 17,9                    |
| 29700                   | 55,8 | 53,3                    | 16,1                    |
| 29500                   | 62,9 | 47,1                    | 14,3                    |
| 29800                   | 69,7 | 42,9                    | 12,9                    |
| 29700                   | 79,1 | 37,6                    | 11,4                    |
| 30000                   | 89,1 | 33,7                    | 10,1                    |
| 29800                   | 98,8 | 30,2                    | 9,11                    |
| 30100                   | 111  | 27,1                    | 8,08                    |
| 25600                   | 124  | 20,7                    | 7,28                    |

## B3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70200                   | 26,9 | 262                     | 33,5                    |
| 73800                   | 30,2 | 245                     | 29,8                    |
| 74800                   | 35,0 | 214                     | 25,7                    |
| 82000                   | 39,3 | 209                     | 22,9                    |
| 82000                   | 44,0 | 187                     | 20,4                    |
| 82000                   | 48,6 | 169                     | 18,5                    |
| 82000                   | 54,6 | 151                     | 16,5                    |
| 82000                   | 63,8 | 129                     | 14,1                    |
| 82000                   | 71,7 | 115                     | 12,5                    |
| 82000                   | 79,9 | 103                     | 11,3                    |
| 82000                   | 90,4 | 90,9                    | 9,95                    |
| 82000                   | 102  | 80,9                    | 8,85                    |
| 82000                   | 113  | 72,6                    | 7,94                    |
| 80000                   | 128  | 62,8                    | 7,05                    |

## 14.4 BH GEAR REDUCER - 900 rpm

## B4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 12600                   | 123 | 10,4                    | 7,29                    |
| 12000                   | 135 | 9,07                    | 6,65                    |
| 13200                   | 161 | 8,41                    | 5,60                    |
| 12800                   | 176 | 7,42                    | 5,11                    |
| 10700                   | 197 | 5,58                    | 4,57                    |
| 11000                   | 227 | 4,94                    | 3,96                    |
| 12100                   | 253 | 4,91                    | 3,56                    |
| 12900                   | 277 | 4,77                    | 3,25                    |
| 11200                   | 317 | 3,62                    | 2,84                    |
| 11400                   | 347 | 3,35                    | 2,60                    |
| 12400                   | 380 | 3,35                    | 2,37                    |
| 12700                   | 432 | 3,01                    | 2,09                    |
| 10900                   | 487 | 2,29                    | 1,85                    |
| 12100                   | 541 | 2,29                    | 1,66                    |
| 13200                   | 593 | 2,28                    | 1,52                    |

## B4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 24800                   | 125 | 20,3                    | 7,17                    |
| 24100                   | 146 | 16,9                    | 6,16                    |
| 24400                   | 161 | 15,5                    | 5,58                    |
| 25100                   | 179 | 14,4                    | 5,04                    |
| 25200                   | 208 | 12,4                    | 4,32                    |
| 25500                   | 230 | 11,4                    | 3,92                    |
| 25300                   | 256 | 10,1                    | 3,51                    |
| 26200                   | 282 | 9,51                    | 3,20                    |
| 25400                   | 314 | 8,27                    | 2,86                    |
| 26700                   | 366 | 7,46                    | 2,46                    |
| 25400                   | 407 | 6,39                    | 2,21                    |
| 22800                   | 444 | 5,27                    | 2,03                    |
| 26300                   | 490 | 5,49                    | 1,84                    |
| 28200                   | 571 | 5,06                    | 1,58                    |
| 26900                   | 634 | 4,35                    | 1,42                    |

## B4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 41100                   | 125 | 33,7                    | 7,22                    |
| 44700                   | 144 | 31,8                    | 6,25                    |
| 39700                   | 154 | 26,4                    | 5,86                    |
| 44200                   | 183 | 24,7                    | 4,91                    |
| 41200                   | 198 | 21,3                    | 4,54                    |
| 45000                   | 224 | 20,6                    | 4,02                    |
| 41400                   | 259 | 16,4                    | 3,48                    |
| 41500                   | 275 | 15,4                    | 3,27                    |
| 45300                   | 309 | 15,0                    | 2,92                    |
| 41700                   | 356 | 12,0                    | 2,52                    |
| 42200                   | 403 | 10,7                    | 2,23                    |
| 42700                   | 452 | 9,69                    | 1,99                    |
| 46900                   | 481 | 9,99                    | 1,87                    |
| 45400                   | 556 | 8,37                    | 1,62                    |
| 44900                   | 623 | 7,39                    | 1,45                    |

## B4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 16300                   | 128 | 13,0                    | 7,03                    |
| 15100                   | 143 | 10,8                    | 6,28                    |
| 17000                   | 160 | 10,9                    | 5,63                    |
| 15100                   | 181 | 8,55                    | 4,96                    |
| 17100                   | 202 | 8,65                    | 4,45                    |
| 17100                   | 221 | 7,93                    | 4,07                    |
| 15300                   | 251 | 6,23                    | 3,59                    |
| 17200                   | 280 | 6,30                    | 3,22                    |
| 16500                   | 315 | 5,36                    | 2,85                    |
| 16600                   | 349 | 4,87                    | 2,58                    |
| 15500                   | 391 | 4,06                    | 2,30                    |
| 17700                   | 436 | 4,16                    | 2,06                    |
| 15100                   | 481 | 3,21                    | 1,87                    |
| 18400                   | 573 | 3,30                    | 1,57                    |
| 15800                   | 632 | 2,56                    | 1,42                    |

## B4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 29900                   | 123 | 24,9                    | 7,31                    |
| 29500                   | 134 | 22,5                    | 6,70                    |
| 30100                   | 160 | 19,2                    | 5,62                    |
| 30100                   | 183 | 16,8                    | 4,91                    |
| 29700                   | 200 | 15,2                    | 4,50                    |
| 30000                   | 222 | 13,9                    | 4,06                    |
| 29900                   | 250 | 12,2                    | 3,60                    |
| 30100                   | 277 | 11,1                    | 3,25                    |
| 30400                   | 312 | 10,0                    | 2,89                    |
| 30300                   | 360 | 8,62                    | 2,50                    |
| 30400                   | 405 | 7,69                    | 2,22                    |
| 31100                   | 450 | 7,07                    | 2,00                    |
| 31400                   | 506 | 6,36                    | 1,78                    |
| 32000                   | 562 | 5,83                    | 1,60                    |
| 35500                   | 633 | 5,75                    | 1,42                    |

## B4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 80700                   | 130 | 63,4                    | 6,90                    |
| 80700                   | 147 | 56,4                    | 6,14                    |
| 80700                   | 170 | 48,8                    | 5,31                    |
| 80700                   | 181 | 45,7                    | 4,97                    |
| 80700                   | 203 | 40,6                    | 4,42                    |
| 80700                   | 225 | 36,7                    | 3,99                    |
| 80700                   | 253 | 32,6                    | 3,55                    |
| 80700                   | 280 | 29,5                    | 3,21                    |
| 80700                   | 309 | 26,7                    | 2,91                    |
| 80700                   | 348 | 23,8                    | 2,59                    |
| 80700                   | 395 | 20,9                    | 2,28                    |
| 80700                   | 440 | 18,8                    | 2,04                    |
| 80700                   | 482 | 17,2                    | 1,87                    |
| 80700                   | 542 | 15,3                    | 1,66                    |
| 80700                   | 604 | 13,7                    | 1,49                    |

## 14.5 BH GEAR REDUCER - 700 rpm

## B2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6190                    | 5,27 | 90,6                    | 133                     |
| 7220                    | 6,16 | 90,4                    | 114                     |
| 8030                    | 6,85 | 90,4                    | 102                     |
| 8830                    | 7,53 | 90,5                    | 93,0                    |
| 10200                   | 8,70 | 90,3                    | 80,5                    |
| 10100                   | 9,67 | 80,4                    | 72,4                    |
| 8270                    | 11,3 | 56,4                    | 61,9                    |
| 9180                    | 12,6 | 56,3                    | 55,7                    |
| 9870                    | 13,8 | 55,3                    | 50,8                    |
| 8880                    | 15,5 | 44,3                    | 45,2                    |
| 7890                    | 17,3 | 35,2                    | 40,5                    |
| 7500                    | 19,6 | 29,5                    | 35,7                    |
| 8210                    | 21,5 | 29,5                    | 32,6                    |
| 9130                    | 24,1 | 29,2                    | 29,0                    |

## B2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12000                   | 5,41 | 172                     | 129                     |
| 13800                   | 6,11 | 175                     | 115                     |
| 15300                   | 6,71 | 176                     | 104                     |
| 16600                   | 7,70 | 167                     | 90,9                    |
| 17800                   | 8,61 | 159                     | 81,3                    |
| 17400                   | 9,51 | 141                     | 73,6                    |
| 16100                   | 11,1 | 112                     | 63,2                    |
| 15700                   | 12,4 | 98,1                    | 56,6                    |
| 16400                   | 14,4 | 87,8                    | 48,6                    |
| 15800                   | 16,0 | 76,2                    | 43,8                    |
| 14800                   | 17,7 | 64,4                    | 39,5                    |
| 14800                   | 20,4 | 55,8                    | 34,3                    |
| 15600                   | 22,7 | 53,1                    | 30,9                    |
| 15400                   | 25,1 | 47,4                    | 27,9                    |

## B2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24700                   | 5,41 | 353                     | 129                     |
| 28000                   | 5,98 | 360                     | 117                     |
| 29000                   | 6,74 | 332                     | 104                     |
| 29600                   | 7,50 | 304                     | 93,3                    |
| 30100                   | 8,67 | 268                     | 80,7                    |
| 30600                   | 9,49 | 249                     | 73,8                    |
| 31200                   | 11,0 | 219                     | 63,8                    |
| 31700                   | 12,3 | 198                     | 56,7                    |
| 32300                   | 14,3 | 174                     | 49,1                    |
| 33300                   | 16,0 | 161                     | 43,8                    |
| 32300                   | 17,3 | 144                     | 40,5                    |
| 28800                   | 20,2 | 110                     | 34,7                    |
| 32100                   | 22,6 | 110                     | 31,0                    |
| 34400                   | 24,5 | 108                     | 28,6                    |

## B2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8960                    | 5,44 | 127                     | 129                     |
| 10200                   | 6,16 | 127                     | 114                     |
| 11000                   | 6,68 | 127                     | 105                     |
| 12400                   | 7,50 | 127                     | 93,3                    |
| 13300                   | 8,63 | 119                     | 81,1                    |
| 13200                   | 9,67 | 105                     | 72,4                    |
| 12400                   | 10,8 | 88,9                    | 64,9                    |
| 12600                   | 12,6 | 77,0                    | 55,7                    |
| 12500                   | 14,0 | 68,8                    | 49,9                    |
| 12100                   | 15,5 | 60,3                    | 45,2                    |
| 10000                   | 17,3 | 44,8                    | 40,5                    |
| 10300                   | 19,9 | 40,0                    | 35,2                    |
| 11400                   | 21,9 | 40,0                    | 31,9                    |
| 10500                   | 24,5 | 33,1                    | 28,6                    |

## B2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18600                   | 5,44 | 263                     | 129                     |
| 20800                   | 6,04 | 266                     | 116                     |
| 23800                   | 6,82 | 269                     | 103                     |
| 25200                   | 7,89 | 247                     | 88,7                    |
| 24600                   | 8,70 | 218                     | 80,5                    |
| 23900                   | 9,49 | 195                     | 73,7                    |
| 22700                   | 11,3 | 155                     | 61,9                    |
| 24600                   | 12,3 | 154                     | 56,7                    |
| 23200                   | 13,7 | 130                     | 51,1                    |
| 22900                   | 15,4 | 114                     | 45,4                    |
| 20400                   | 17,5 | 90,0                    | 40,0                    |
| 22000                   | 19,4 | 87,3                    | 36,1                    |
| 22500                   | 21,9 | 79,2                    | 32,0                    |
| 19500                   | 24,3 | 62,0                    | 28,8                    |

## B2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 47000                   | 5,52 | 656                     | 127                     |
| 49000                   | 5,98 | 632                     | 117                     |
| 52100                   | 6,85 | 587                     | 102                     |
| 53600                   | 7,55 | 548                     | 92,7                    |
| 63300                   | 8,61 | 567                     | 81,3                    |
| 61000                   | 9,49 | 495                     | 73,7                    |
| 56200                   | 10,7 | 406                     | 65,6                    |
| 56200                   | 12,3 | 351                     | 56,7                    |
| 56200                   | 13,9 | 312                     | 50,4                    |
| 55600                   | 15,5 | 277                     | 45,2                    |
| 58200                   | 17,4 | 258                     | 40,2                    |
| 53600                   | 19,7 | 210                     | 35,6                    |
| 58200                   | 21,9 | 205                     | 31,9                    |
| 61300                   | 24,7 | 191                     | 28,3                    |

## 14.5 BH GEAR REDUCER - 700 rpm

## B3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9910                    | 29,1 | 26,5                    | 24,0                    |
| 9880                    | 32,7 | 23,5                    | 21,4                    |
| 10800                   | 36,3 | 23,1                    | 19,3                    |
| 11400                   | 40,4 | 22,0                    | 17,3                    |
| 10800                   | 44,3 | 18,9                    | 15,8                    |
| 10400                   | 49,7 | 16,4                    | 14,1                    |
| 10900                   | 57,6 | 14,7                    | 12,2                    |
| 10800                   | 64,6 | 13,0                    | 10,8                    |
| 10400                   | 71,6 | 11,3                    | 9,78                    |
| 11400                   | 78,4 | 11,3                    | 8,92                    |
| 10400                   | 88,1 | 9,19                    | 7,95                    |
| 10100                   | 98,4 | 7,97                    | 7,11                    |
| 10200                   | 113  | 7,09                    | 6,22                    |
| 11900                   | 122  | 7,59                    | 5,72                    |

## B3H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18600                   | 27,7 | 52,4                    | 25,3                    |
| 19100                   | 31,5 | 47,3                    | 22,2                    |
| 19100                   | 35,0 | 42,7                    | 20,0                    |
| 19700                   | 40,9 | 37,6                    | 17,1                    |
| 20000                   | 45,2 | 34,5                    | 15,5                    |
| 20000                   | 50,5 | 30,9                    | 13,9                    |
| 20500                   | 55,4 | 28,8                    | 12,6                    |
| 20900                   | 63,8 | 25,5                    | 11,0                    |
| 21200                   | 72,0 | 22,9                    | 9,72                    |
| 21300                   | 80,0 | 20,7                    | 8,75                    |
| 21900                   | 91,6 | 18,6                    | 7,65                    |
| 22000                   | 102  | 16,8                    | 6,88                    |
| 22500                   | 112  | 15,6                    | 6,23                    |
| 20700                   | 125  | 13,0                    | 5,61                    |

## B3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35000                   | 28,1 | 97,1                    | 24,9                    |
| 36200                   | 31,1 | 90,8                    | 22,5                    |
| 35900                   | 34,8 | 80,4                    | 20,1                    |
| 39800                   | 40,4 | 76,9                    | 17,3                    |
| 39800                   | 45,3 | 68,6                    | 15,5                    |
| 43200                   | 48,6 | 69,3                    | 14,4                    |
| 42300                   | 56,1 | 58,8                    | 12,5                    |
| 44400                   | 62,9 | 55,1                    | 11,1                    |
| 43600                   | 72,6 | 46,8                    | 9,64                    |
| 39500                   | 81,4 | 37,8                    | 8,60                    |
| 44500                   | 89,1 | 39,0                    | 7,86                    |
| 45600                   | 103  | 34,5                    | 6,80                    |
| 41600                   | 115  | 28,1                    | 6,07                    |
| 41000                   | 125  | 25,6                    | 5,61                    |

## B3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13700                   | 27,2 | 39,1                    | 25,7                    |
| 14900                   | 30,1 | 38,7                    | 23,3                    |
| 14400                   | 33,5 | 33,6                    | 20,9                    |
| 15000                   | 38,0 | 30,7                    | 18,4                    |
| 14900                   | 42,4 | 27,4                    | 16,5                    |
| 15100                   | 49,4 | 23,8                    | 14,2                    |
| 15400                   | 55,2 | 21,8                    | 12,7                    |
| 15200                   | 65,0 | 18,2                    | 10,8                    |
| 15900                   | 72,4 | 17,2                    | 9,66                    |
| 14300                   | 79,9 | 13,9                    | 8,76                    |
| 12300                   | 90,4 | 10,6                    | 7,74                    |
| 13700                   | 101  | 10,6                    | 6,91                    |
| 15200                   | 113  | 10,5                    | 6,20                    |
| 14400                   | 125  | 9,03                    | 5,62                    |

## B3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29300                   | 27,5 | 83,2                    | 25,5                    |
| 27400                   | 30,5 | 70,1                    | 23,0                    |
| 27900                   | 35,7 | 61,0                    | 19,6                    |
| 29000                   | 38,7 | 58,4                    | 18,1                    |
| 29100                   | 42,9 | 52,9                    | 16,3                    |
| 29700                   | 50,3 | 46,0                    | 13,9                    |
| 30000                   | 55,8 | 41,9                    | 12,5                    |
| 29800                   | 62,9 | 37,0                    | 11,1                    |
| 30100                   | 69,7 | 33,7                    | 10,0                    |
| 30000                   | 79,1 | 29,5                    | 8,85                    |
| 30200                   | 89,1 | 26,5                    | 7,86                    |
| 30100                   | 98,8 | 23,7                    | 7,08                    |
| 30400                   | 111  | 21,3                    | 6,29                    |
| 25900                   | 124  | 16,3                    | 5,66                    |

## B3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70900                   | 26,9 | 205                     | 26,0                    |
| 74500                   | 30,2 | 192                     | 23,1                    |
| 75600                   | 35,0 | 168                     | 20,0                    |
| 82800                   | 39,3 | 164                     | 17,8                    |
| 82800                   | 44,0 | 147                     | 15,9                    |
| 82800                   | 48,6 | 133                     | 14,4                    |
| 82800                   | 54,6 | 118                     | 12,8                    |
| 82800                   | 63,8 | 101                     | 11,0                    |
| 82800                   | 71,7 | 90,0                    | 9,76                    |
| 82800                   | 79,9 | 80,8                    | 8,76                    |
| 82800                   | 90,4 | 71,4                    | 7,74                    |
| 82800                   | 102  | 63,5                    | 6,89                    |
| 82800                   | 113  | 57,0                    | 6,18                    |
| 80800                   | 128  | 49,3                    | 5,48                    |

## 14.5 BH GEAR REDUCER - 700 rpm

## B4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 13100                   | 123 | 8,44                    | 5,67                    |
| 12500                   | 135 | 7,35                    | 5,17                    |
| 13700                   | 161 | 6,81                    | 4,36                    |
| 13300                   | 176 | 6,01                    | 3,98                    |
| 11200                   | 197 | 4,52                    | 3,55                    |
| 11400                   | 227 | 4,00                    | 3,08                    |
| 12600                   | 253 | 3,98                    | 2,77                    |
| 13400                   | 277 | 3,86                    | 2,53                    |
| 11700                   | 317 | 2,93                    | 2,21                    |
| 11800                   | 347 | 2,71                    | 2,02                    |
| 12900                   | 380 | 2,71                    | 1,84                    |
| 13200                   | 432 | 2,44                    | 1,62                    |
| 11400                   | 487 | 1,86                    | 1,44                    |
| 12600                   | 541 | 1,85                    | 1,29                    |
| 13800                   | 593 | 1,85                    | 1,18                    |

## B4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 25800                   | 125 | 16,4                    | 5,58                    |
| 25100                   | 146 | 13,7                    | 4,79                    |
| 25400                   | 161 | 12,6                    | 4,34                    |
| 26100                   | 179 | 11,6                    | 3,92                    |
| 26200                   | 208 | 10,0                    | 3,36                    |
| 26500                   | 230 | 9,21                    | 3,05                    |
| 26300                   | 256 | 8,18                    | 2,73                    |
| 27200                   | 282 | 7,70                    | 2,49                    |
| 26400                   | 314 | 6,70                    | 2,23                    |
| 27800                   | 366 | 6,04                    | 1,91                    |
| 26400                   | 407 | 5,17                    | 1,72                    |
| 23700                   | 444 | 4,26                    | 1,58                    |
| 27300                   | 490 | 4,44                    | 1,43                    |
| 29300                   | 571 | 4,09                    | 1,23                    |
| 28000                   | 634 | 3,52                    | 1,10                    |

## B4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 42700                   | 125 | 27,3                    | 5,62                    |
| 46500                   | 144 | 25,7                    | 4,86                    |
| 41300                   | 154 | 21,4                    | 4,55                    |
| 46000                   | 183 | 20,0                    | 3,82                    |
| 42900                   | 198 | 17,2                    | 3,53                    |
| 46800                   | 224 | 16,7                    | 3,13                    |
| 43100                   | 259 | 13,3                    | 2,71                    |
| 43200                   | 275 | 12,5                    | 2,54                    |
| 47100                   | 309 | 12,2                    | 2,27                    |
| 43400                   | 356 | 9,70                    | 1,96                    |
| 44000                   | 403 | 8,68                    | 1,74                    |
| 44500                   | 452 | 7,84                    | 1,55                    |
| 48800                   | 481 | 8,09                    | 1,46                    |
| 47300                   | 556 | 6,77                    | 1,26                    |
| 46700                   | 623 | 5,98                    | 1,12                    |

## B4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 16900                   | 128 | 10,5                    | 5,47                    |
| 15700                   | 143 | 8,71                    | 4,88                    |
| 17700                   | 160 | 8,81                    | 4,38                    |
| 15800                   | 181 | 6,93                    | 3,86                    |
| 17800                   | 202 | 7,00                    | 3,46                    |
| 17800                   | 221 | 6,41                    | 3,16                    |
| 15900                   | 251 | 5,04                    | 2,79                    |
| 17900                   | 280 | 5,10                    | 2,50                    |
| 17200                   | 315 | 4,34                    | 2,22                    |
| 17300                   | 349 | 3,94                    | 2,01                    |
| 16100                   | 391 | 3,28                    | 1,79                    |
| 18400                   | 436 | 3,37                    | 1,61                    |
| 15700                   | 481 | 2,60                    | 1,45                    |
| 19200                   | 573 | 2,67                    | 1,22                    |
| 16500                   | 632 | 2,07                    | 1,11                    |

## B4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 31100                   | 123 | 20,1                    | 5,69                    |
| 30700                   | 134 | 18,2                    | 5,21                    |
| 31300                   | 160 | 15,6                    | 4,37                    |
| 31400                   | 183 | 13,6                    | 3,82                    |
| 31000                   | 200 | 12,3                    | 3,50                    |
| 31200                   | 222 | 11,2                    | 3,16                    |
| 31100                   | 250 | 9,92                    | 2,80                    |
| 31400                   | 277 | 9,02                    | 2,53                    |
| 31700                   | 312 | 8,10                    | 2,25                    |
| 31500                   | 360 | 6,97                    | 1,94                    |
| 31700                   | 405 | 6,22                    | 1,73                    |
| 32300                   | 450 | 5,72                    | 1,56                    |
| 32700                   | 506 | 5,14                    | 1,38                    |
| 33300                   | 562 | 4,72                    | 1,25                    |
| 37000                   | 633 | 4,66                    | 1,11                    |

## B4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 84000                   | 130 | 51,3                    | 5,37                    |
| 84000                   | 147 | 45,7                    | 4,78                    |
| 84000                   | 170 | 39,5                    | 4,13                    |
| 84000                   | 181 | 37,0                    | 3,87                    |
| 84000                   | 203 | 32,9                    | 3,44                    |
| 84000                   | 225 | 29,7                    | 3,11                    |
| 84000                   | 253 | 26,4                    | 2,76                    |
| 84000                   | 280 | 23,9                    | 2,50                    |
| 84000                   | 309 | 21,6                    | 2,26                    |
| 84000                   | 348 | 19,3                    | 2,01                    |
| 84000                   | 395 | 16,9                    | 1,77                    |
| 84000                   | 440 | 15,2                    | 1,59                    |
| 84000                   | 482 | 13,9                    | 1,45                    |
| 84000                   | 542 | 12,4                    | 1,29                    |
| 84000                   | 604 | 11,1                    | 1,16                    |

## 14.6 BH GEAR REDUCER - 500 rpm

## B2H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6260                    | 5,27 | 65,5                    | 94,9                    |
| 7300                    | 6,16 | 65,3                    | 81,2                    |
| 8120                    | 6,85 | 65,3                    | 73,0                    |
| 8920                    | 7,53 | 65,3                    | 66,4                    |
| 10300                   | 8,70 | 65,2                    | 57,5                    |
| 10200                   | 9,67 | 58,1                    | 51,7                    |
| 8350                    | 11,3 | 40,7                    | 44,2                    |
| 9280                    | 12,6 | 40,7                    | 39,8                    |
| 9970                    | 13,8 | 39,9                    | 36,3                    |
| 8970                    | 15,5 | 32,0                    | 32,3                    |
| 7970                    | 17,3 | 25,4                    | 28,9                    |
| 7580                    | 19,6 | 21,3                    | 25,5                    |
| 8300                    | 21,5 | 21,3                    | 23,3                    |
| 9230                    | 24,1 | 21,1                    | 20,7                    |

## B2H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12200                   | 5,41 | 124                     | 92,4                    |
| 14000                   | 6,11 | 126                     | 81,9                    |
| 15500                   | 6,71 | 127                     | 74,5                    |
| 16800                   | 7,70 | 120                     | 64,9                    |
| 18000                   | 8,61 | 115                     | 58,1                    |
| 17600                   | 9,51 | 102                     | 52,6                    |
| 16300                   | 11,1 | 81,1                    | 45,1                    |
| 15900                   | 12,4 | 70,8                    | 40,4                    |
| 16600                   | 14,4 | 63,4                    | 34,7                    |
| 16000                   | 16,0 | 55,0                    | 31,3                    |
| 15000                   | 17,7 | 46,5                    | 28,2                    |
| 14900                   | 20,4 | 40,3                    | 24,5                    |
| 15800                   | 22,7 | 38,3                    | 22,0                    |
| 15600                   | 25,1 | 34,2                    | 19,9                    |

## B2H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25000                   | 5,41 | 254                     | 92,4                    |
| 28200                   | 5,98 | 260                     | 83,6                    |
| 29300                   | 6,74 | 240                     | 74,2                    |
| 29900                   | 7,50 | 219                     | 66,6                    |
| 30400                   | 8,67 | 193                     | 57,7                    |
| 31000                   | 9,49 | 180                     | 52,7                    |
| 31500                   | 11,0 | 158                     | 45,6                    |
| 32000                   | 12,3 | 143                     | 40,5                    |
| 32600                   | 14,3 | 126                     | 35,1                    |
| 33700                   | 16,0 | 116                     | 31,3                    |
| 32600                   | 17,3 | 104                     | 28,9                    |
| 29100                   | 20,2 | 79,3                    | 24,8                    |
| 32400                   | 22,6 | 79,0                    | 22,1                    |
| 34800                   | 24,5 | 78,2                    | 20,4                    |

## B2H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9060                    | 5,44 | 91,8                    | 92,0                    |
| 10300                   | 6,16 | 91,8                    | 81,1                    |
| 11100                   | 6,68 | 91,7                    | 74,8                    |
| 12500                   | 7,50 | 91,7                    | 66,7                    |
| 13400                   | 8,63 | 85,6                    | 57,9                    |
| 13300                   | 9,67 | 75,9                    | 51,7                    |
| 12600                   | 10,8 | 64,1                    | 46,4                    |
| 12700                   | 12,6 | 55,6                    | 39,8                    |
| 12600                   | 14,0 | 49,7                    | 35,7                    |
| 12200                   | 15,5 | 43,5                    | 32,3                    |
| 10200                   | 17,3 | 32,4                    | 28,9                    |
| 10400                   | 19,9 | 28,9                    | 25,2                    |
| 11500                   | 21,9 | 28,9                    | 22,8                    |
| 10600                   | 24,5 | 23,9                    | 20,4                    |

## B2H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18800                   | 5,44 | 190                     | 92,0                    |
| 21100                   | 6,04 | 192                     | 82,8                    |
| 24000                   | 6,82 | 194                     | 73,3                    |
| 25500                   | 7,89 | 178                     | 63,3                    |
| 24900                   | 8,70 | 158                     | 57,5                    |
| 24200                   | 9,49 | 140                     | 52,7                    |
| 22900                   | 11,3 | 112                     | 44,2                    |
| 24900                   | 12,3 | 111                     | 40,5                    |
| 23400                   | 13,7 | 94,2                    | 36,5                    |
| 23100                   | 15,4 | 82,6                    | 32,4                    |
| 20600                   | 17,5 | 65,0                    | 28,6                    |
| 22200                   | 19,4 | 63,0                    | 25,8                    |
| 22700                   | 21,9 | 57,2                    | 22,9                    |
| 19800                   | 24,3 | 44,8                    | 20,6                    |

## B2H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 47500                   | 5,52 | 474                     | 90,5                    |
| 49500                   | 5,98 | 456                     | 83,6                    |
| 52600                   | 6,85 | 424                     | 73,0                    |
| 54200                   | 7,55 | 395                     | 66,2                    |
| 64000                   | 8,61 | 410                     | 58,1                    |
| 61600                   | 9,49 | 358                     | 52,7                    |
| 56800                   | 10,7 | 293                     | 46,8                    |
| 56800                   | 12,3 | 253                     | 40,5                    |
| 56800                   | 13,9 | 225                     | 36,0                    |
| 56200                   | 15,5 | 200                     | 32,3                    |
| 58800                   | 17,4 | 186                     | 28,7                    |
| 54200                   | 19,7 | 152                     | 25,4                    |
| 58800                   | 21,9 | 148                     | 22,8                    |
| 61900                   | 24,7 | 138                     | 20,2                    |

## 14.6 BH GEAR REDUCER - 500 rpm

## B3H 180

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10100                   | 29,1 | 19,2                    | 17,2                    |
| 10000                   | 32,7 | 17,1                    | 15,3                    |
| 10900                   | 36,3 | 16,7                    | 13,8                    |
| 11600                   | 40,4 | 16,0                    | 12,4                    |
| 10900                   | 44,3 | 13,7                    | 11,3                    |
| 10600                   | 49,7 | 11,9                    | 10,1                    |
| 11000                   | 57,6 | 10,7                    | 8,69                    |
| 11000                   | 64,6 | 9,46                    | 7,74                    |
| 10500                   | 71,6 | 8,20                    | 6,99                    |
| 11500                   | 78,4 | 8,18                    | 6,37                    |
| 10500                   | 88,1 | 6,66                    | 5,68                    |
| 10200                   | 98,4 | 5,77                    | 5,08                    |
| 10400                   | 113  | 5,14                    | 4,44                    |
| 12100                   | 122  | 5,50                    | 4,09                    |

## B3H 225

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18900                   | 27,7 | 38,0                    | 18,1                    |
| 19400                   | 31,5 | 34,3                    | 15,9                    |
| 19400                   | 35,0 | 30,9                    | 14,3                    |
| 20000                   | 40,9 | 27,2                    | 12,2                    |
| 20300                   | 45,2 | 25,0                    | 11,1                    |
| 20300                   | 50,5 | 22,4                    | 9,89                    |
| 20800                   | 55,4 | 20,9                    | 9,03                    |
| 21200                   | 63,8 | 18,5                    | 7,83                    |
| 21500                   | 72,0 | 16,6                    | 6,94                    |
| 21600                   | 80,0 | 15,0                    | 6,25                    |
| 22200                   | 91,6 | 13,5                    | 5,46                    |
| 22300                   | 102  | 12,2                    | 4,92                    |
| 22800                   | 112  | 11,3                    | 4,45                    |
| 21000                   | 125  | 9,39                    | 4,01                    |

## B3H 280

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35500                   | 28,1 | 70,4                    | 17,8                    |
| 36800                   | 31,1 | 65,9                    | 16,1                    |
| 36400                   | 34,8 | 58,2                    | 14,4                    |
| 40400                   | 40,4 | 55,7                    | 12,4                    |
| 40400                   | 45,3 | 49,7                    | 11,0                    |
| 43800                   | 48,6 | 50,2                    | 10,3                    |
| 42900                   | 56,1 | 42,6                    | 8,91                    |
| 45100                   | 62,9 | 39,9                    | 7,95                    |
| 44200                   | 72,6 | 33,9                    | 6,89                    |
| 40100                   | 81,4 | 27,4                    | 6,14                    |
| 45200                   | 89,1 | 28,2                    | 5,61                    |
| 46200                   | 103  | 25,0                    | 4,86                    |
| 42200                   | 115  | 20,4                    | 4,34                    |
| 41600                   | 125  | 18,6                    | 4,01                    |

## B3H 200

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13900                   | 27,2 | 28,4                    | 18,4                    |
| 15100                   | 30,1 | 28,0                    | 16,6                    |
| 14700                   | 33,5 | 24,3                    | 14,9                    |
| 15200                   | 38,0 | 22,3                    | 13,2                    |
| 15100                   | 42,4 | 19,8                    | 11,8                    |
| 15300                   | 49,4 | 17,2                    | 10,1                    |
| 15600                   | 55,2 | 15,8                    | 9,07                    |
| 15400                   | 65,0 | 13,2                    | 7,70                    |
| 16200                   | 72,4 | 12,4                    | 6,90                    |
| 14500                   | 79,9 | 10,1                    | 6,25                    |
| 12400                   | 90,4 | 7,66                    | 5,53                    |
| 13900                   | 101  | 7,65                    | 4,94                    |
| 15400                   | 113  | 7,61                    | 4,43                    |
| 14700                   | 125  | 6,55                    | 4,01                    |

## B3H 250

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29700                   | 27,5 | 60,3                    | 18,2                    |
| 27800                   | 30,5 | 50,8                    | 16,4                    |
| 28400                   | 35,7 | 44,2                    | 14,0                    |
| 29400                   | 38,7 | 42,3                    | 12,9                    |
| 29500                   | 42,9 | 38,3                    | 11,6                    |
| 30100                   | 50,3 | 33,3                    | 9,93                    |
| 30400                   | 55,8 | 30,3                    | 8,96                    |
| 30300                   | 62,9 | 26,8                    | 7,95                    |
| 30600                   | 69,7 | 24,4                    | 7,17                    |
| 30400                   | 79,1 | 21,4                    | 6,32                    |
| 30700                   | 89,1 | 19,2                    | 5,61                    |
| 30500                   | 98,8 | 17,2                    | 5,06                    |
| 30800                   | 111  | 15,4                    | 4,49                    |
| 26300                   | 124  | 11,8                    | 4,04                    |

## B3H 355

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 71900                   | 26,9 | 149                     | 18,6                    |
| 75600                   | 30,2 | 139                     | 16,5                    |
| 76700                   | 35,0 | 122                     | 14,3                    |
| 84000                   | 39,3 | 119                     | 12,7                    |
| 84000                   | 44,0 | 106                     | 11,4                    |
| 84000                   | 48,6 | 96,3                    | 10,3                    |
| 84000                   | 54,6 | 85,7                    | 9,16                    |
| 84000                   | 63,8 | 73,3                    | 7,84                    |
| 84000                   | 71,7 | 65,2                    | 6,97                    |
| 84000                   | 79,9 | 58,5                    | 6,25                    |
| 84000                   | 90,4 | 51,7                    | 5,53                    |
| 84000                   | 102  | 46,0                    | 4,92                    |
| 84000                   | 113  | 41,3                    | 4,41                    |
| 81900                   | 128  | 35,7                    | 3,92                    |

## 14.6 BH GEAR REDUCER - 500 rpm

## B4H 180

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 13600                   | 123 | 6,26                    | 4,05                    |
| 13000                   | 135 | 5,45                    | 3,69                    |
| 14200                   | 161 | 5,05                    | 3,11                    |
| 13800                   | 176 | 4,45                    | 2,84                    |
| 11600                   | 197 | 3,35                    | 2,54                    |
| 11800                   | 227 | 2,96                    | 2,20                    |
| 13100                   | 253 | 2,95                    | 1,98                    |
| 13900                   | 277 | 2,86                    | 1,81                    |
| 12100                   | 317 | 2,17                    | 1,58                    |
| 12300                   | 347 | 2,01                    | 1,44                    |
| 13400                   | 380 | 2,01                    | 1,32                    |
| 13700                   | 432 | 1,81                    | 1,16                    |
| 11800                   | 487 | 1,38                    | 1,03                    |
| 13100                   | 541 | 1,37                    | 0,925                   |
| 14300                   | 593 | 1,37                    | 0,844                   |

## B4H 225

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 26800                   | 125 | 12,2                    | 3,98                    |
| 26100                   | 146 | 10,1                    | 3,42                    |
| 26400                   | 161 | 9,31                    | 3,10                    |
| 27100                   | 179 | 8,64                    | 2,80                    |
| 27200                   | 208 | 7,43                    | 2,40                    |
| 27600                   | 230 | 6,83                    | 2,18                    |
| 27300                   | 256 | 6,07                    | 1,95                    |
| 28300                   | 282 | 5,71                    | 1,78                    |
| 27400                   | 314 | 4,97                    | 1,59                    |
| 28800                   | 366 | 4,48                    | 1,37                    |
| 27400                   | 407 | 3,84                    | 1,23                    |
| 24600                   | 444 | 3,16                    | 1,13                    |
| 28400                   | 490 | 3,30                    | 1,02                    |
| 30500                   | 571 | 3,04                    | 0,876                   |
| 29100                   | 634 | 2,61                    | 0,789                   |

## B4H 280

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 44400                   | 125 | 20,3                    | 4,01                    |
| 48300                   | 144 | 19,1                    | 3,47                    |
| 42900                   | 154 | 15,9                    | 3,25                    |
| 47800                   | 183 | 14,8                    | 2,73                    |
| 44500                   | 198 | 12,8                    | 2,52                    |
| 48600                   | 224 | 12,3                    | 2,23                    |
| 44700                   | 259 | 9,84                    | 1,93                    |
| 44800                   | 275 | 9,26                    | 1,82                    |
| 48900                   | 309 | 9,03                    | 1,62                    |
| 45100                   | 356 | 7,20                    | 1,40                    |
| 45600                   | 403 | 6,44                    | 1,24                    |
| 46200                   | 452 | 5,82                    | 1,11                    |
| 50700                   | 481 | 6,00                    | 1,04                    |
| 49100                   | 556 | 5,02                    | 0,900                   |
| 48500                   | 623 | 4,44                    | 0,803                   |

## B4H 200

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 17600                   | 128 | 7,81                    | 3,90                    |
| 16300                   | 143 | 6,46                    | 3,49                    |
| 18400                   | 160 | 6,53                    | 3,13                    |
| 16400                   | 181 | 5,14                    | 2,76                    |
| 18500                   | 202 | 5,19                    | 2,47                    |
| 18500                   | 221 | 4,76                    | 2,26                    |
| 16500                   | 251 | 3,74                    | 1,99                    |
| 18600                   | 280 | 3,78                    | 1,79                    |
| 17800                   | 315 | 3,22                    | 1,59                    |
| 17900                   | 349 | 2,92                    | 1,43                    |
| 16700                   | 391 | 2,44                    | 1,28                    |
| 19100                   | 436 | 2,50                    | 1,15                    |
| 16300                   | 481 | 1,93                    | 1,04                    |
| 19900                   | 573 | 1,98                    | 0,873                   |
| 17100                   | 632 | 1,54                    | 0,791                   |

## B4H 250

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 32300                   | 123 | 14,9                    | 4,06                    |
| 31900                   | 134 | 13,5                    | 3,72                    |
| 32500                   | 160 | 11,5                    | 3,12                    |
| 32600                   | 183 | 10,1                    | 2,73                    |
| 32100                   | 200 | 9,14                    | 2,50                    |
| 32400                   | 222 | 8,32                    | 2,25                    |
| 32300                   | 250 | 7,35                    | 2,00                    |
| 32600                   | 277 | 6,69                    | 1,81                    |
| 32900                   | 312 | 6,00                    | 1,60                    |
| 32700                   | 360 | 5,17                    | 1,39                    |
| 32900                   | 405 | 4,61                    | 1,23                    |
| 33600                   | 450 | 4,25                    | 1,11                    |
| 33900                   | 506 | 3,81                    | 0,987                   |
| 34500                   | 562 | 3,50                    | 0,890                   |
| 38400                   | 633 | 3,45                    | 0,790                   |

## B4H 355

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 87200                   | 130 | 38,1                    | 3,84                    |
| 87200                   | 147 | 33,9                    | 3,41                    |
| 87200                   | 170 | 29,3                    | 2,95                    |
| 87200                   | 181 | 27,4                    | 2,76                    |
| 87200                   | 203 | 24,4                    | 2,46                    |
| 87200                   | 225 | 22,0                    | 2,22                    |
| 87200                   | 253 | 19,6                    | 1,97                    |
| 87200                   | 280 | 17,7                    | 1,78                    |
| 87200                   | 309 | 16,1                    | 1,62                    |
| 87200                   | 348 | 14,3                    | 1,44                    |
| 87200                   | 395 | 12,6                    | 1,27                    |
| 87200                   | 440 | 11,3                    | 1,14                    |
| 87200                   | 482 | 10,3                    | 1,04                    |
| 87200                   | 542 | 9,16                    | 0,923                   |
| 87200                   | 604 | 8,22                    | 0,828                   |

PBH





**PBC**

# 16.1 THERMAL POWER

## 16.1.1 Information

Nominal thermal capacity  $P_{th}$  is the maximum mechanical power that a gear reducer can transmit (under continuous duty) without its internal temperature rising to such a degree as to damage gear reducer components. Thermal capacity may be increased by using seals made from special rubber and synthetic oil, or suitable cooling devices. In the event of short duty cycles followed by periods of rest long enough to allow for gear reducer to cool down appropriately, thermal capacity loses significance and may be disregarded.

The scheme below indicates the nominal thermal power capacity [kW] according to the following conditions:

- Mounting position B3;
- Continuous operation at input speed  $\leq 1500$  rpm;
- Environment temperature  $T_{amb}=20^{\circ}\text{C}$ ;
- Sea level altitude;
- Air speed around the gear reducer  $\geq 1\text{m/s}$ ;
- Absence of external radial and/or axial loads;
- Lubricant oil up to  $95^{\circ}\text{C}$  (mineral oil) and  $100^{\circ}\text{C}$  (synthetic oil).

Table NOMINAL THERMAL CAPACITY  $P_{th}$

| Pth [kW]   |                |                |                |                |                |                |                |                |                |                |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|            | PC - BC<br>176 | PC - BC<br>196 | PC - BC<br>216 | PC - BC<br>246 | PC - BC<br>266 | PC - BC<br>276 | PC - BC<br>316 | PC - BC<br>346 | PC - BC<br>396 | PC - BC<br>406 |
| <b>P1C</b> | 111            | -              | 151            | -              | 169            | -              | 186            | -              | 210            |                |
| <b>P2C</b> | 62,1           | 72,2           | 85,6           | 93,2           | 106            | 111            | 144            | 175            | 181            | 209            |
| <b>P3C</b> | 52,5           | 57,4           | 76,1           | 82,8           | 100            | 102            | 138            | 159            | 169            | 191            |
| <b>P4C</b> | -              | -              | 48,7           | 52,5           | 67,6           | 68,3           | 99,1           | 110            | 130            | 142            |
| <b>B2C</b> | 45,7           | 54,4           | 55,8           | 62,3           | 64             | 66,9           | 81,7           | 94,6           | 98,3           | 116,5          |
| <b>B3C</b> | 50             | 55,4           | 77             | 83,3           | 95             | 103            | 112            | 125            | 127            | 138            |
| <b>B4C</b> | 31,7           | 34             | 46,9           | 50,2           | 66,1           | 66,7           | 98,6           | 110            | 125            | 135            |

When a thermal capacity up to  $P_{th}$  is applied to the gear reducer under the reference conditions outlined above, the proper lubrication and operation of the gear reducer are guaranteed.

# 16.1 THERMAL POWER

## 16.1.2 Verification

### Verification of the application

The thermal limit of a gear reducer under real-life application conditions must be verified for each and every application using the following formula:

$P_1 < P_{th} * f_{ta} * f_{tb} * f_{tc} * f_{tn} * f_{ts} * f_{tv}$ , where:

- $P_1$  = installed power [kW]
- $P_{th}$  = thermal capacity under reference conditions [kW] (see table "Nominal thermal capacity");
- $f_{ta}$  = sea-level elevation correction factor (see table);
- $f_{tb}$  = cooling fan correction factor (see table);
- $f_{ta}$  = ambient and operating temperature correction factor (see table);
- $f_{tn}$  = input speed  $n_1$  correction factor;
- $f_{ts}$  = cooling coil correction factor (see table);
- $f_{tv}$  = airflow speed correction factor around the gear reducer (see table).

Correction factors reflect operating conditions other than the reference conditions and are obtained from the following ISO14179 tables:

**Table  $f_{ta}$**   
Sea-level elevation correction factor

| Altitude [m] | $f_{ta}$ |
|--------------|----------|
| 0            | 1        |
| 750          | 0,95     |
| 1500         | 0,9      |
| 2250         | 0,85     |
| 3000         | 0,81     |

**Table  $f_{tb}$**   
Cooling fan correction factor

|    | $n_1$ [rpm] | $f_{tb}$ |
|----|-------------|----------|
| PC | 1400        | 1,8      |
| BC | 1400        | 2        |

**Table  $f_{tc}$**   
Ambient and operating temperature correction factor

|                        |    | Duty per hour of operation % |      |      |      |      |
|------------------------|----|------------------------------|------|------|------|------|
|                        |    | 100                          | 80   | 60   | 40   | 20   |
| Ambient temperature °C | 10 | 1,15                         | 1,25 | 1,35 | 1,5  | 2    |
|                        | 20 | 1                            | 1,05 | 1,15 | 1,35 | 1,75 |
|                        | 30 | 0,9                          | 1    | 1,05 | 1,25 | 1,5  |
|                        | 40 | 0,75                         | 0,8  | 0,9  | 1    | 1,35 |
|                        | 50 | 0,6                          | 0,63 | 0,7  | 0,8  | 1    |

**Table  $f_{tn}$**   
Input speed  $n_1$  correction factor

| $f_{tn}$              | $n_1$ [rpm] |      |      |      |      |
|-----------------------|-------------|------|------|------|------|
|                       | 700         | 900  | 1140 | 1400 | 1800 |
| P1C                   | 1,15        | 1,1  | 1,05 | 1    | 0,8  |
| P2C - B2C             | 1,1         | 1,07 | 1,05 | 1    | 0,9  |
| P3C - P4C - B3C - B4C | 1,07        | 1,05 | 1,05 | 1    | 0,95 |

**Table  $f_{ts}$**   
Cooling coil correction factor

|     | $f_{ts}$ |
|-----|----------|
| PBC | 2,25     |

**Table  $f_{tv}$**   
Airflow speed correction factor around the gear reducer

| Ventilation correction factor                        | $f_{tv}$ |
|------------------------------------------------------|----------|
| Stagnant air (<0,5 m/s)                              | 0,75     |
| Indoor installation with slight ventilation          | 1        |
| Indoor installation with good ventilation (>1,4 m/s) | 1,4      |

If unit is to operate at input speeds higher than 2800 rpm, or at ambient temperatures exceeding 50 °C, please contact MOTOVARIO TECHNICAL SERVICE.

## 16.2 INPUT SPEED

The value of maximum input speed  $n_1 \text{ max}$  shown in the table reflects continuous duty S1 (operation under steady loading for a period long enough to achieve thermal balance) and the B3 mounting position.

Continuous speeds above 1800 rpm are nevertheless not recommended since they could cause overheating and early deterioration of seals, bearings and lubricant.

Mounting positions other than B3 could make it necessary to use dedicated forced lubrication systems, while the transmission ratio could in some cases originate a further limitation of the permissible maximum input speed  $n_1 \text{ max}$ , contact MOTOVARIO TECHNICAL SERVICE.

For intermittent duty, please contact MOTOVARIO TECHNICAL SERVICE.

**Table MAXIMUM PERMISSIBLE INPUT SPEED  $n_1 \text{ max}$**

| $n_1 \text{ max}$ [rpm] |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|
| PC - BC                 | P1C  | P2C  | P3C  | P4C  | B2C  | B3C  | B4C  |
| <b>176</b>              | 2800 | 2800 | 2800 | -    | 2800 | 2800 | 2800 |
| <b>196</b>              | -    | 2800 | 2800 | -    | 2240 | 2400 | 2800 |
| <b>216</b>              | 2240 | 2800 | 2800 | 2800 | 2240 | 2400 | 2800 |
| <b>246</b>              | -    | 2400 | 2800 | 2800 | 2000 | 2240 | 2800 |
| <b>266</b>              | 1800 | 2240 | 2800 | 2800 | 1800 | 2240 | 2800 |
| <b>276</b>              | -    | 2240 | 2800 | 2800 | 1800 | 2000 | 2800 |
| <b>316</b>              | 1800 | 1800 | 2400 | 2800 | 1800 | 2000 | 2400 |
| <b>346</b>              | -    | 1800 | 2400 | 2800 | 1400 | 1800 | 2400 |
| <b>396</b>              | 1400 | 1800 | 2000 | 2400 | 1400 | 1800 | 2240 |
| <b>406</b>              | -    | 1400 | 1800 | 2400 | 1400 | 1400 | 2000 |

## 16.3 LUBRICATION

For the gear reducers of the PBC series, it is always necessary to specify the mounting position.

The amount of oil in the table are merely indicative only and for the proper topping up you will have to refer to the level plug or the dipstick, if any. Any deviations in level can depend on construction tolerances but also by the placement of the unit or by the mounting surface at the customers' premises. For this reason it is appropriate that the customer checks and, if necessary, restores the level when the unit are installed.

For V5 and V6 mounting positions, pump forced lubrication is required.

Table OIL CAPACITIES IN LITRES ~ [l]

|            | P1C |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| <b>B3</b>  | 22  | -   | 42  | -   | 68  | -   | 120 | -   | 175 | -   |
| <b>B3R</b> | 22  | -   | 42  | -   | 68  | -   | 120 | -   | 175 | -   |
| <b>B6</b>  | 34  | -   | 61  | -   | 94  | -   | 140 | -   | 246 | -   |
| <b>B7</b>  | 34  | -   | 61  | -   | 94  | -   | 140 | -   | 246 | -   |
| <b>V5</b>  | 22  | -   | 42  | -   | 68  | -   | 120 | -   | 175 | -   |
| <b>V6</b>  | 22  | -   | 42  | -   | 68  | -   | 120 | -   | 175 | -   |

|            | P2C |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| <b>B3</b>  | 15  | 16  | 27  | 30  | 42  | 45  | 71  | 76  | 135 | 140 |
| <b>B3R</b> | 15  | 16  | 27  | 30  | 42  | 45  | 71  | 76  | 135 | 140 |
| <b>B6</b>  | 28  | 30  | 50  | 55  | 78  | 88  | 128 | 144 | 192 | 216 |
| <b>B7</b>  | 28  | 30  | 50  | 55  | 78  | 88  | 128 | 144 | 192 | 216 |
| <b>V5</b>  | 15  | 16  | 27  | 30  | 42  | 45  | 71  | 76  | 135 | 140 |
| <b>V6</b>  | 15  | 16  | 27  | 30  | 42  | 45  | 71  | 76  | 135 | 140 |

|            | P3C |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| <b>B3</b>  | 16  | 18  | 29  | 32  | 48  | 49  | 85  | 90  | 160 | 165 |
| <b>B3R</b> | 16  | 18  | 29  | 32  | 48  | 49  | 85  | 90  | 160 | 165 |
| <b>B6</b>  | 29  | 32  | 51  | 56  | 88  | 96  | 152 | 164 | 232 | 256 |
| <b>B7</b>  | 29  | 32  | 51  | 56  | 88  | 96  | 152 | 164 | 232 | 256 |
| <b>V5</b>  | 16  | 18  | 29  | 32  | 48  | 49  | 85  | 90  | 160 | 165 |
| <b>V6</b>  | 16  | 18  | 29  | 32  | 48  | 49  | 85  | 90  | 160 | 165 |

|            | P4C |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| <b>B3</b>  | -   | -   | 25  | 27  | 48  | 50  | 80  | 87  | 130 | 140 |
| <b>B3R</b> | -   | -   | 25  | 27  | 48  | 50  | 80  | 87  | 130 | 140 |
| <b>B6</b>  | -   | -   | 48  | 52  | 84  | 88  | 140 | 160 | 200 | 224 |
| <b>B7</b>  | -   | -   | 48  | 52  | 84  | 88  | 140 | 160 | 200 | 224 |
| <b>V5</b>  | -   | -   | 25  | 27  | 48  | 50  | 80  | 87  | 130 | 140 |
| <b>V6</b>  | -   | -   | 25  | 27  | 48  | 50  | 80  | 87  | 130 | 140 |

16.3 LUBRICATION

|     | B2C |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| B3  | 16  | 19  | 31  | 34  | 48  | 50  | 80  | 95  | 140 | 155 |
| B3R | 16  | 19  | 31  | 34  | 48  | 50  | 80  | 95  | 140 | 155 |
| B6  | 30  | 37  | 59  | 65  | 92  | 96  | 152 | 180 | 240 | 272 |
| B7  | 30  | 37  | 59  | 65  | 92  | 96  | 152 | 180 | 240 | 272 |
| V5  | 16  | 19  | 31  | 34  | 48  | 50  | 80  | 95  | 140 | 155 |
| V6  | 16  | 19  | 31  | 34  | 48  | 50  | 80  | 95  | 140 | 155 |

|     | B3C |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| B3  | 15  | 16  | 37  | 30  | 42  | 45  | 71  | 76  | 130 | 140 |
| B3R | 15  | 16  | 37  | 30  | 42  | 45  | 71  | 76  | 130 | 140 |
| B6  | 27  | 29  | 48  | 54  | 77  | 84  | 124 | 140 | 200 | 216 |
| B7  | 27  | 29  | 48  | 54  | 77  | 84  | 124 | 140 | 200 | 216 |
| V5  | 15  | 16  | 37  | 30  | 42  | 45  | 71  | 76  | 130 | 140 |
| V6  | 15  | 16  | 37  | 30  | 42  | 45  | 71  | 76  | 130 | 140 |

|     | B4C |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     | 176 | 196 | 216 | 246 | 266 | 276 | 316 | 346 | 396 | 406 |
| B3  | 16  | 18  | 30  | 33  | 48  | 50  | 80  | 90  | 145 | 150 |
| B3R | 16  | 18  | 30  | 33  | 48  | 50  | 80  | 90  | 145 | 150 |
| B6  | 29  | 32  | 52  | 58  | 84  | 88  | 140 | 160 | 200 | 224 |
| B7  | 29  | 32  | 52  | 58  | 84  | 88  | 140 | 160 | 200 | 224 |
| V5  | 16  | 18  | 30  | 33  | 48  | 50  | 80  | 90  | 145 | 150 |
| V6  | 16  | 18  | 30  | 33  | 48  | 50  | 80  | 90  | 145 | 150 |

## 16.4 OVERHUNG/AXIAL LOAD

## 16.4.1 Information

Permissible radial load [N] values are indicated in the following tables and refer to the load applied at shaft midpoint in the worst conditions, in terms of angle of application and direction of rotation. In the event of special conditions that exceed the ratings given in the catalogue, please contact MOTOVARIO TECHNICAL SERVICE and submit the full application data: direction of loading, direction of rotation of shaft, type of duty. For double-ended and hollow shafts, where radial loading is to be applied at both ends, maximum permissible loads must be determined according to specific operating conditions. When this is the case, please contact MOTOVARIO TECHNICAL SERVICE.

Shaft radial loading is calculated by the following formula:  $Fr = (2000 \cdot M \cdot fz) / D \leq Fr1 \text{ or } Fr2$  where:

- **Fr** [N] Resultant radial load
- **M** [Nm] Shaft torque
- **D** [mm] Diameter of transmission element mounted on the shaft
- **Fr1-Fr2** [N] Maximum permissible radial loading (see relevant tables)
- **fz** = 1,1 Gear pinion  
1,4 Chain wheel  
1,4 Pulley for timing belt drive  
2,5 V belt pulley

## 16.4.2 Input - Radial load

Fr1 [N] is the permissible radial load value from the gear reducer in continuous service, applied at the centre line of the shaft, considering input speed  $n_1 = 1400$  rpm.

For radial load application positions other than on the centre line, contact MOTOVARIO TECHNICAL SERVICE.

|     | PBC | 176  | 196  | 216  | 246  | 266   | 276  | 316   | 346   | 396   | 406   |
|-----|-----|------|------|------|------|-------|------|-------|-------|-------|-------|
| Fr1 | P1C | 7300 | -    | 7400 | -    | 10200 | -    | -     | -     | 21000 | -     |
|     | P2C | 5200 | 5200 | 5300 | 5300 | 7300  | 7300 | 11000 | 11000 | 15000 | 15000 |
|     | P3C | 4600 | 4600 | 4700 | 4700 | 6500  | 6500 | 9800  | 9800  | 13400 | 13400 |
|     | P4C | -    | -    | 3900 | 3900 | 4900  | 4900 | 7400  | 7400  | 10100 | 10100 |
|     | B3C | 2100 | 2100 | 2800 | 2800 | 3700  | 3700 | 4200  | 4200  | 4600  | 4600  |
|     | B4C | 3000 | 3000 | 3600 | 3600 | 4000  | 4000 | 4800  | 4800  | 5700  | 5700  |

## 16.4.3 Output - Radial load

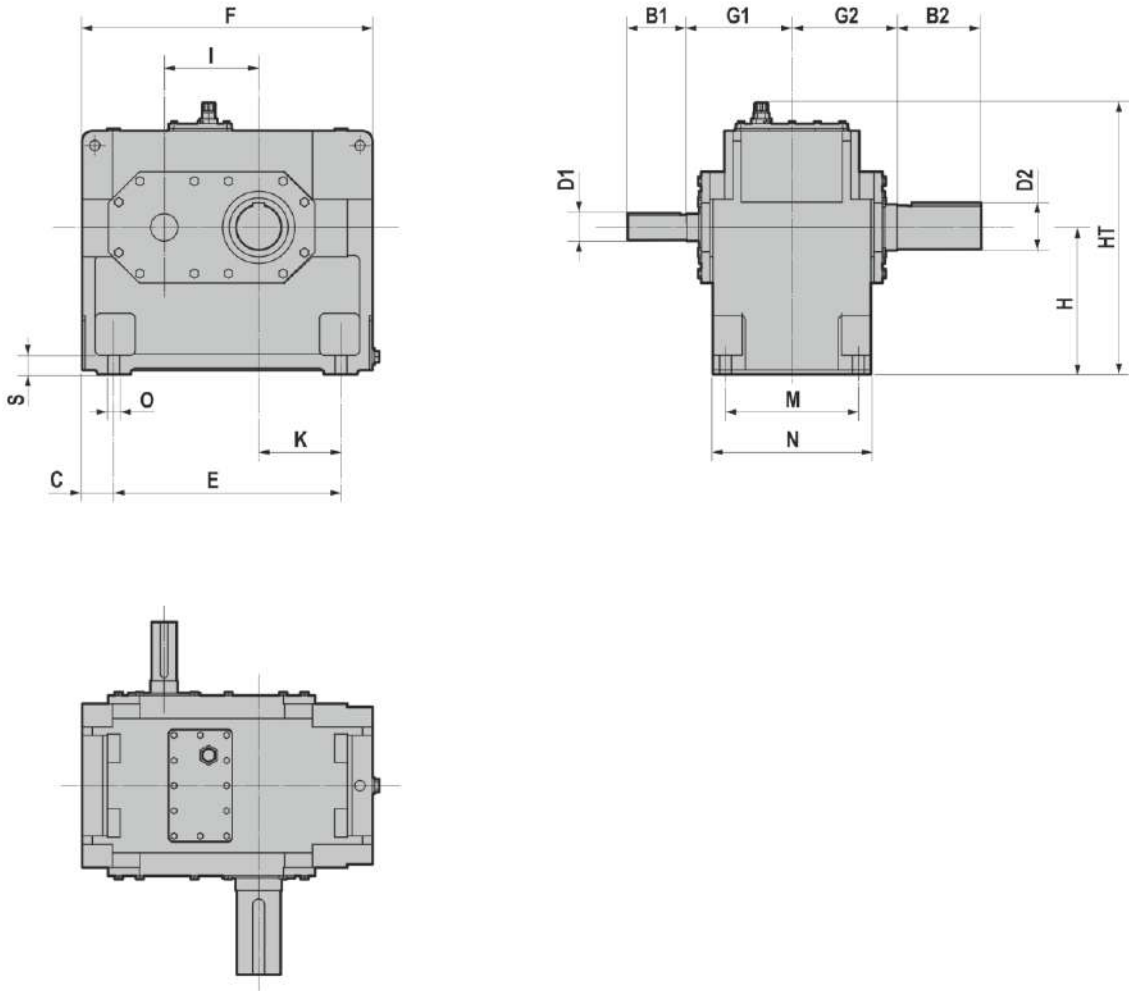
Fr2 [N] is the permissible radial load value from the gear reducer in continuous service, applied at the centre line of the output shaft, calculated considering the most unfavourable conditions as for application angle and direction of rotation.

For radial load application positions other than on the centre line and/or in case of axial loads, contact MOTOVARIO TECHNICAL SERVICE.

|     | PBC           | 176   | 196   | 216   | 246   | 266   | 276   | 316   | 346   | 396    | 406    |
|-----|---------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Fr2 | P1C           | 16000 | -     | 20000 | -     | 36000 | -     | 62000 | -     | 115000 | -      |
|     | P2C           | 22000 | 22000 | 30000 | 30000 | 30000 | 45000 | 64000 | 64000 | 150000 | 150000 |
|     | P3C- B3C- B4C | 29000 | 29000 | 40000 | 40000 | 40000 | 60000 | 85000 | 85000 | 190000 | 190000 |
|     | P4C           | -     | -     | 26000 | 26000 | 26000 | 40000 | 50000 | 50000 | 150000 | 150000 |
|     | B2C           | 27000 | 27000 | 37000 | 37000 | 38000 | 55000 | 78000 | 78000 | 160000 | 160000 |

17.1 REDUCERS/GEARED MOTORS

17.1.1 P1C



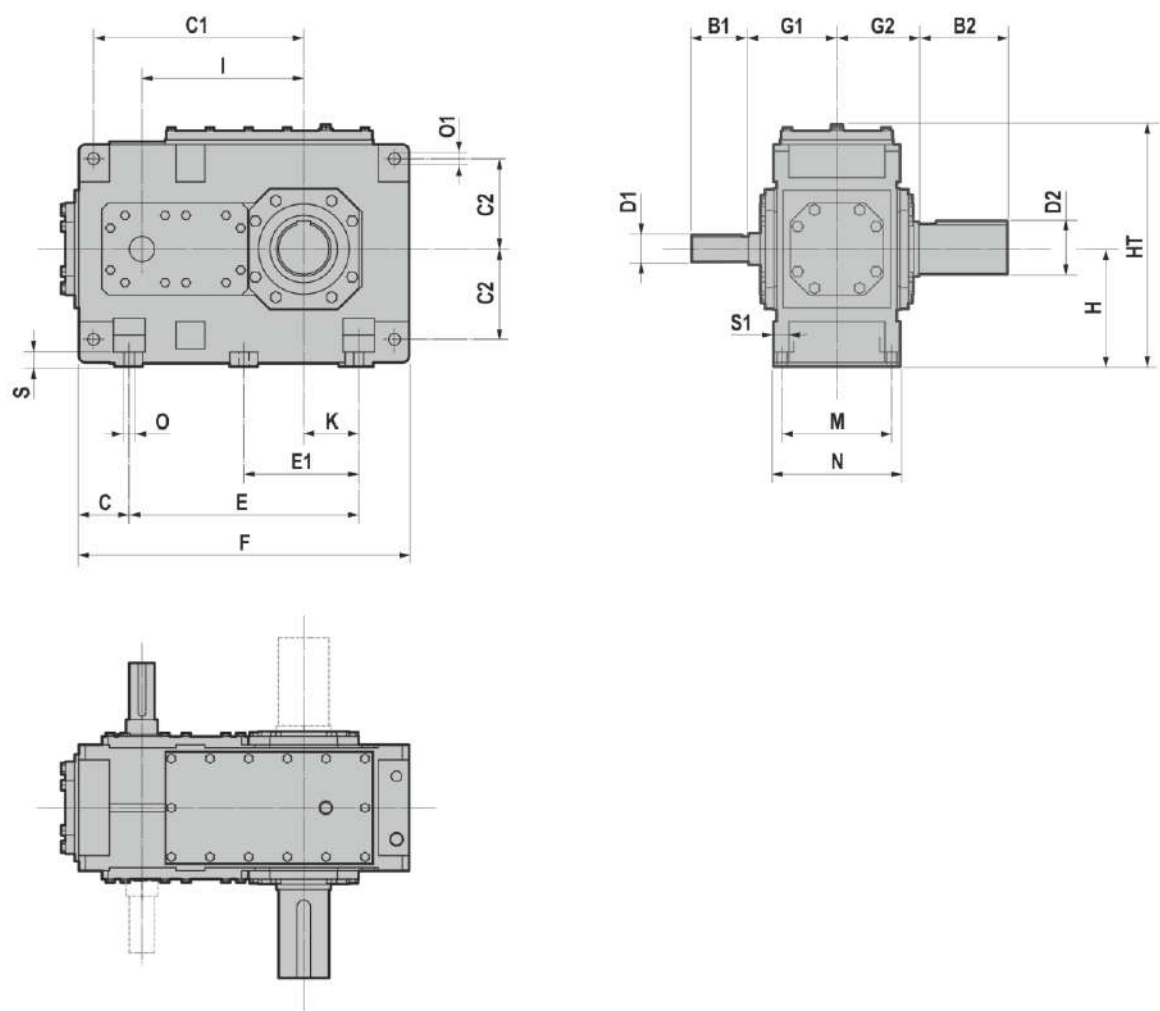
## 17.1 REDUCERS/GEARED MOTORS

| P1C | D2  | B2  | C   | E   | F    | G1  | G2  | H   | HT   | I   | K   | M   | N   | O  | S  |
|-----|-----|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|----|----|
| 176 | 85  | 160 | 70  | 440 | 580  | 210 | 210 | 290 | 525  | 185 | 160 | 240 | 285 | 24 | 35 |
| 216 | 105 | 200 | 75  | 540 | 690  | 250 | 250 | 350 | 625  | 225 | 195 | 315 | 375 | 38 | 45 |
| 266 | 125 | 210 | 90  | 625 | 805  | 280 | 270 | 420 | 735  | 265 | 225 | 350 | 425 | 35 | 50 |
| 316 | 150 | 240 | 95  | 770 | 960  | 325 | 320 | 500 | 875  | 320 | 280 | 440 | 515 | 35 | 60 |
| 396 | 180 | 310 | 115 | 870 | 1100 | 365 | 360 | 580 | 1020 | 370 | 315 | 490 | 580 | 42 | 70 |

| P1C | $i_n = 1,25 - 2,8$ |     | $i_n = 1,6 - 2,8$ |     | $i_n = 3,15 - 4$ |     | $i_n = 4,5 - 5,6$ |     |
|-----|--------------------|-----|-------------------|-----|------------------|-----|-------------------|-----|
|     | D1                 | B1  | D1                | B1  | D1               | B1  | D1                | B1  |
| 176 | 85                 | 160 | -                 | -   | 60               | 135 | 50                | 110 |
| 216 | 100                | 200 | -                 | -   | 75               | 140 | 60                | 140 |
| 266 | 110                | 200 | -                 | -   | 90               | 165 | 75                | 140 |
| 316 | -                  | -   | 130               | 240 | 110              | 205 | 90                | 170 |
| 396 | -                  | -   | 150               | 245 | 130              | 245 | 100               | 210 |

17.1 REDUCERS/GEARED MOTORS

17.1.2 P2C



## 17.1 REDUCERS/GEARED MOTORS

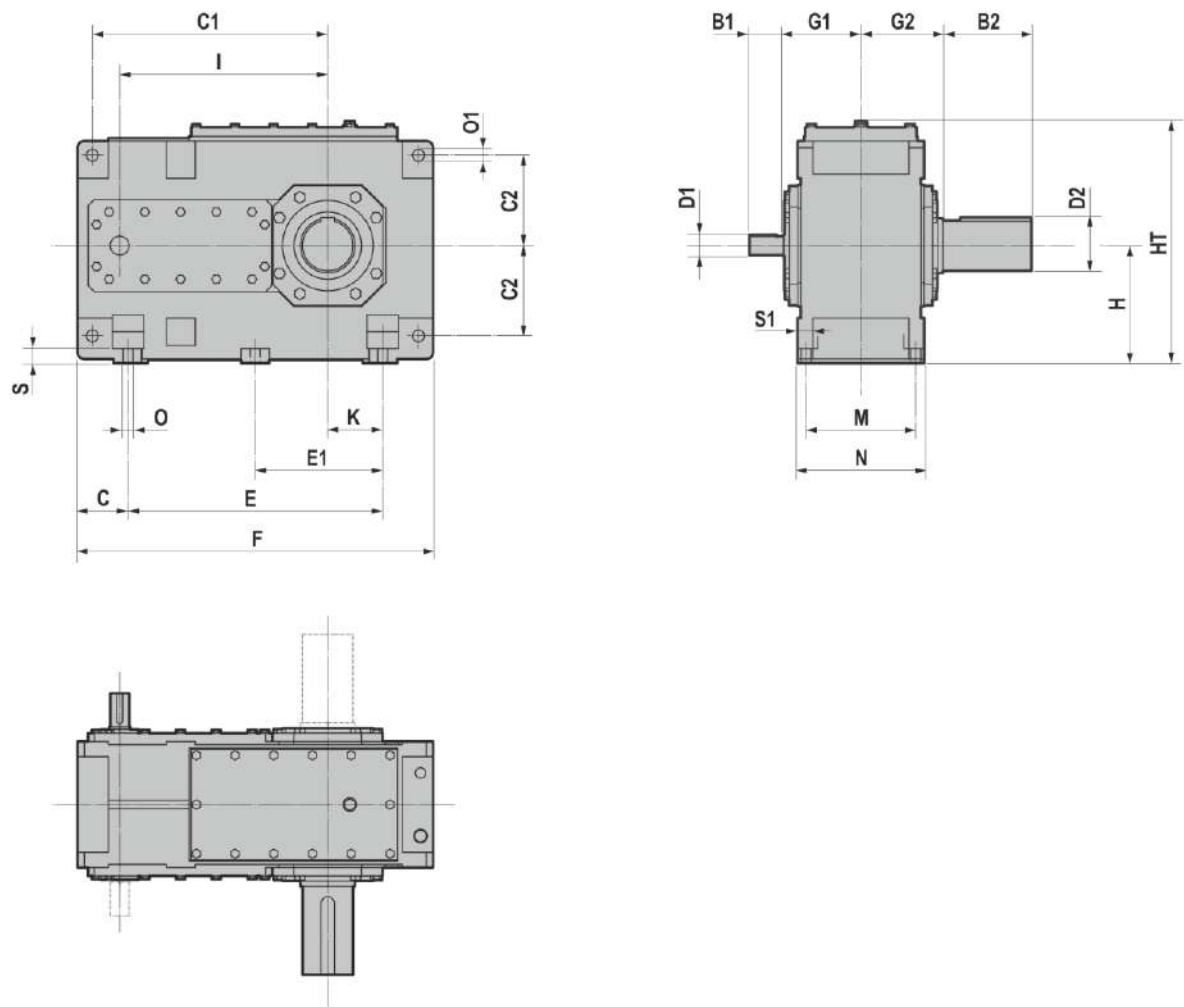
| P2C | D2  | B2  | C   | C1  | C2  | E    | E1  | F    | G1  | G2  |
|-----|-----|-----|-----|-----|-----|------|-----|------|-----|-----|
| 176 | 100 | 210 | 105 | 405 | 180 | 430  | -   | 640  | 195 | 165 |
| 196 | 110 | 210 | 105 | 440 | 180 | 510  | -   | 720  | 195 | 165 |
| 216 | 120 | 210 | 120 | 500 | 215 | 545  | -   | 785  | 210 | 195 |
| 246 | 130 | 250 | 120 | 545 | 215 | 650  | -   | 890  | 210 | 195 |
| 266 | 140 | 250 | 145 | 585 | 245 | 635  | -   | 925  | 240 | 235 |
| 276 | 160 | 300 | 145 | 635 | 245 | 735  | -   | 1025 | 240 | 235 |
| 316 | 170 | 300 | 165 | 710 | 300 | 775  | -   | 1105 | 275 | 270 |
| 346 | 180 | 300 | 165 | 780 | 300 | 930  | -   | 1260 | 275 | 270 |
| 396 | 200 | 350 | 100 | 835 | 340 | 1090 | 545 | 1290 | 330 | 335 |
| 406 | 210 | 350 | 100 | 905 | 340 | 1230 | 685 | 1430 | 330 | 335 |

| P2C | H   | HT  | I   | K   | M   | N   | O  | O1 | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 176 | 230 | 482 | 315 | 100 | 220 | 255 | 19 | 24 | 28 | 30 |
| 196 | 230 | 482 | 350 | 145 | 220 | 255 | 19 | 24 | 28 | 30 |
| 216 | 280 | 572 | 385 | 130 | 260 | 300 | 24 | 28 | 35 | 36 |
| 246 | 280 | 582 | 430 | 190 | 260 | 300 | 24 | 28 | 35 | 36 |
| 266 | 320 | 662 | 450 | 155 | 320 | 370 | 28 | 36 | 40 | 45 |
| 276 | 320 | 662 | 500 | 205 | 320 | 370 | 28 | 36 | 40 | 45 |
| 316 | 380 | 782 | 545 | 180 | 370 | 430 | 35 | 40 | 50 | 54 |
| 346 | 380 | 790 | 615 | 265 | 370 | 430 | 35 | 40 | 50 | 54 |
| 396 | 440 | 900 | 635 | 305 | 475 | 550 | 35 | 48 | 60 | 61 |
| 406 | 440 | 900 | 705 | 375 | 475 | 550 | 35 | 48 | 60 | 61 |

| P2C | $i_n = 6,3 - 11,2$ |     | $i_n = 8 - 14$ |     | $i_n = 12,5 - 20$ |     | $i_n = 12,5 - 22,4$ |     | $i_n = 16 - 25$ |     | $i_n = 16 - 28$ |     |
|-----|--------------------|-----|----------------|-----|-------------------|-----|---------------------|-----|-----------------|-----|-----------------|-----|
|     | D1                 | B1  | D1             | B1  | D1                | B1  | D1                  | B1  | D1              | B1  | D1              | B1  |
| 176 | 50                 | 100 | -              | -   | -                 | -   | 38                  | 80  | -               | -   | -               | -   |
| 196 | -                  | -   | 50             | 100 | -                 | -   | -                   | -   | -               | -   | 38              | 80  |
| 216 | 60                 | 135 | -              | -   | -                 | -   | 50                  | 110 | -               | -   | -               | -   |
| 246 | -                  | -   | 60             | 135 | -                 | -   | -                   | -   | -               | -   | 50              | 110 |
| 266 | 75                 | 140 | -              | -   | -                 | -   | 60                  | 140 | -               | -   | -               | -   |
| 276 | -                  | -   | 75             | 140 | -                 | -   | -                   | -   | -               | -   | 60              | 140 |
| 316 | 90                 | 165 | -              | -   | -                 | -   | -                   | -   | -               | -   | -               | -   |
| 346 | -                  | -   | 90             | 165 | -                 | -   | 70                  | 140 | -               | -   | 70              | 140 |
| 396 | 100                | 205 | -              | -   | 85                | 170 | -                   | -   | -               | -   | -               | -   |
| 406 | -                  | -   | 100            | 205 | -                 | -   | -                   | -   | 85              | 170 | -               | -   |

17.1 REDUCERS/GEARED MOTORS

17.1.3 P3C



## 17.1 REDUCERS/GEARED MOTORS

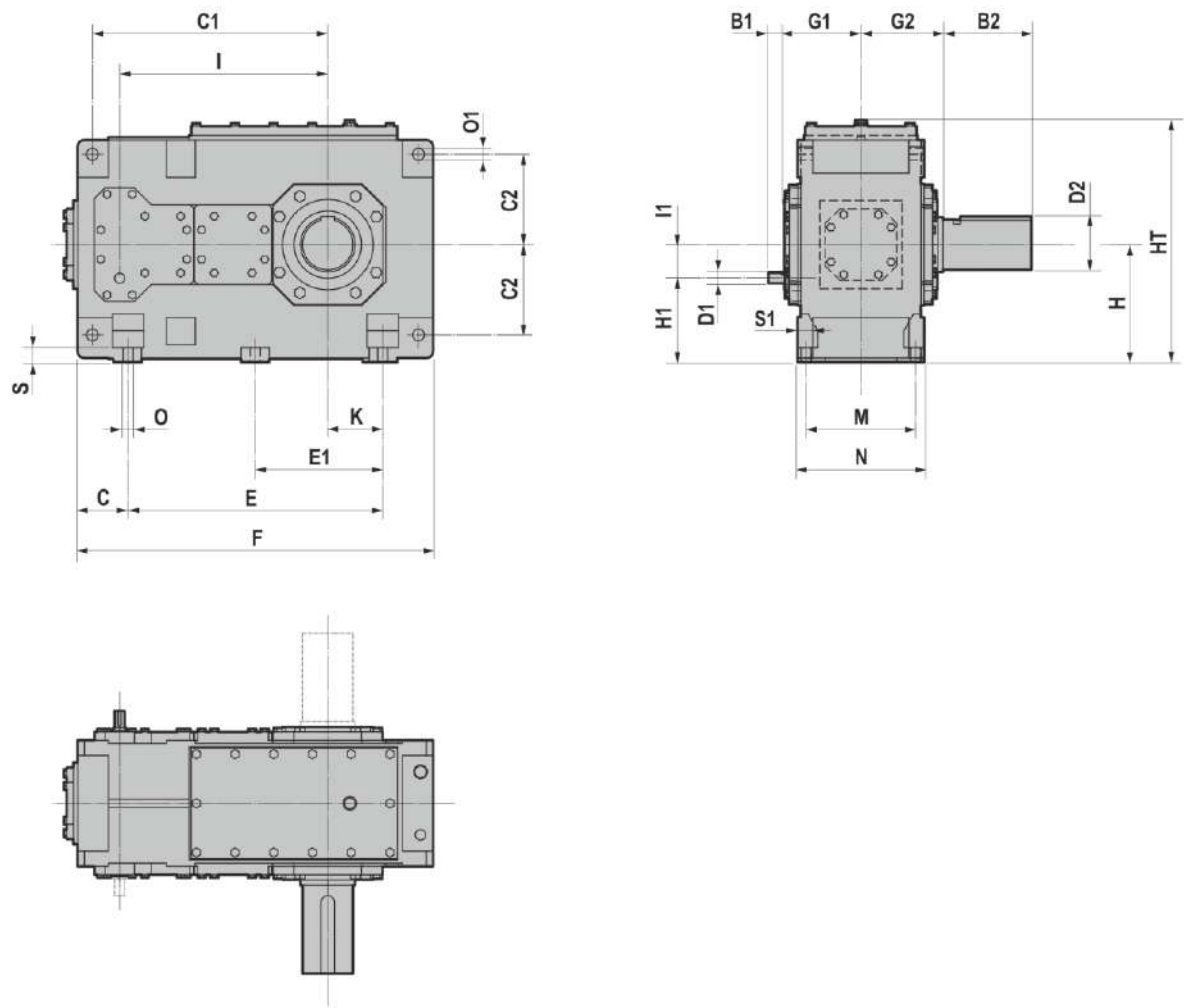
| P3C | D2  | B2  | C   | C1   | C2  | E    | E1    | F    | G1  | G2  |
|-----|-----|-----|-----|------|-----|------|-------|------|-----|-----|
| 176 | 100 | 210 | 105 | 455  | 180 | 480  | -     | 690  | 60  | 165 |
| 196 | 110 | 210 | 105 | 490  | 180 | 560  | -     | 770  | 60  | 165 |
| 216 | 120 | 210 | 120 | 560  | 215 | 605  | -     | 845  | 185 | 195 |
| 246 | 130 | 250 | 120 | 605  | 215 | 710  | -     | 950  | 185 | 195 |
| 266 | 140 | 250 | 145 | 660  | 245 | 710  | -     | 1000 | 230 | 235 |
| 276 | 160 | 300 | 145 | 710  | 245 | 810  | -     | 1100 | 230 | 235 |
| 316 | 170 | 300 | 165 | 805  | 300 | 870  | -     | 1200 | 255 | 270 |
| 346 | 180 | 300 | 165 | 875  | 300 | 1025 | -     | 1355 | 255 | 270 |
| 396 | 200 | 350 | 100 | 940  | 340 | 1195 | 597,5 | 1395 | 310 | 335 |
| 406 | 210 | 350 | 100 | 1010 | 340 | 1335 | 737,5 | 1535 | 310 | 335 |

| P3C | H   | HT  | I   | K   | M   | N   | O  | O1 | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 176 | 230 | 482 | 405 | 100 | 220 | 255 | 19 | 24 | 28 | 30 |
| 196 | 230 | 482 | 440 | 145 | 220 | 255 | 19 | 24 | 28 | 30 |
| 216 | 280 | 572 | 495 | 130 | 260 | 300 | 24 | 28 | 35 | 36 |
| 246 | 280 | 582 | 540 | 190 | 260 | 300 | 24 | 28 | 35 | 36 |
| 266 | 320 | 662 | 580 | 155 | 320 | 370 | 28 | 36 | 40 | 45 |
| 276 | 320 | 662 | 630 | 205 | 320 | 370 | 28 | 36 | 40 | 45 |
| 316 | 380 | 782 | 705 | 180 | 370 | 430 | 35 | 40 | 50 | 54 |
| 346 | 380 | 790 | 775 | 265 | 370 | 430 | 35 | 40 | 50 | 54 |
| 396 | 440 | 900 | 820 | 305 | 475 | 550 | 35 | 48 | 60 | 61 |
| 406 | 440 | 900 | 890 | 375 | 475 | 550 | 35 | 48 | 60 | 61 |

| P3C | $i_n = 22,4 - 45$ |     | $i_n = 35 - 45$ |     | $i_n = 31,5 - 56$ |     | $i_n = 50 - 63$ |     | $i_n = 63 - 80$ |     | $i_n = 71 - 90$ |     | $i_n = 90 - 112$ |    |
|-----|-------------------|-----|-----------------|-----|-------------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|------------------|----|
|     | D1                | B1  | D1              | B1  | D1                | B1  | D1              | B1  | D1              | B1  | D1              | B1  | D1               | B1 |
| 176 | -                 | -   | 40              | 70  | -                 | -   | 30              | 50  | -               | -   | 24              | 40  | -                | -  |
| 196 | -                 | -   | -               | -   | 40                | 70  | -               | -   | 30              | 50  | -               | -   | 24               | 40 |
| 216 | -                 | -   | 45              | 80  | -                 | -   | 35              | 60  | -               | -   | 28              | 50  | -                | -  |
| 246 | -                 | -   | -               | -   | 45                | 80  | -               | -   | 35              | 60  | -               | -   | 28               | 50 |
| 266 | -                 | -   | 60              | 125 | -                 | -   | 45              | 100 | -               | -   | 32              | 80  | -                | -  |
| 276 | -                 | -   | -               | -   | 60                | 125 | -               | -   | 45              | 100 | -               | -   | 32               | 80 |
| 316 | -                 | -   | 70              | 120 | -                 | -   | 50              | 80  | -               | -   | 42              | 70  | -                | -  |
| 346 | -                 | -   | -               | -   | 70                | 120 | -               | -   | 50              | 80  | -               | -   | 42               | 70 |
| 396 | 85                | 160 | -               | -   | -                 | -   | 60              | 135 | -               | -   | 50              | 110 | -                | -  |
| 406 | -                 | -   | -               | -   | -                 | -   | -               | -   | -               | -   | -               | -   | -                | -  |

17.1 REDUCERS/GEARED MOTORS

17.1.4 P4C



## 17.1 REDUCERS/GEARED MOTORS

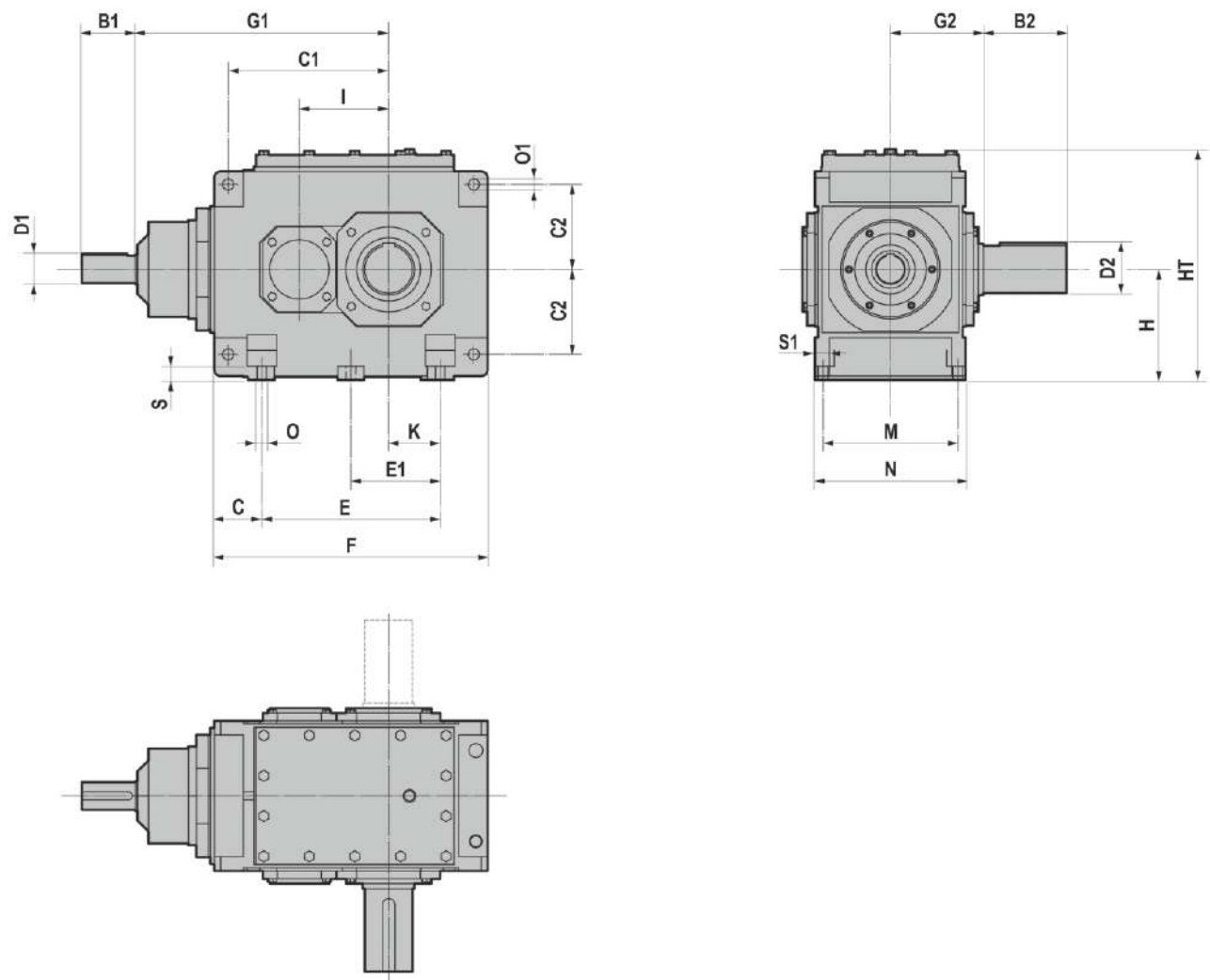
| P4C | D2  | B2  | C   | C1   | C2  | E    | E1    | F    | G1  | G2  | H   |
|-----|-----|-----|-----|------|-----|------|-------|------|-----|-----|-----|
| 216 | 120 | 210 | 120 | 560  | 215 | 605  | -     | 845  | 180 | 195 | 280 |
| 246 | 130 | 250 | 120 | 605  | 215 | 710  | -     | 950  | 180 | 195 | 280 |
| 266 | 140 | 250 | 145 | 660  | 245 | 710  | -     | 1000 | 215 | 235 | 320 |
| 276 | 160 | 300 | 145 | 710  | 245 | 810  | -     | 1100 | 215 | 235 | 320 |
| 316 | 170 | 300 | 165 | 805  | 300 | 870  | -     | 1200 | 250 | 270 | 380 |
| 346 | 180 | 300 | 165 | 875  | 300 | 1025 | -     | 1355 | 250 | 270 | 380 |
| 396 | 200 | 350 | 100 | 940  | 340 | 1195 | 597,5 | 1395 | 305 | 335 | 440 |
| 406 | 210 | 350 | 100 | 1010 | 340 | 1335 | 737,5 | 1535 | 305 | 335 | 440 |

| P4C | H1  | HT  | I   | II  | K   | M   | N   | O  | O1 | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 216 | 200 | 572 | 495 | 80  | 130 | 260 | 300 | 24 | 28 | 35 | 36 |
| 246 | 200 | 582 | 540 | 80  | 190 | 260 | 300 | 24 | 28 | 35 | 36 |
| 266 | 230 | 662 | 580 | 90  | 155 | 320 | 370 | 28 | 36 | 40 | 45 |
| 276 | 230 | 662 | 630 | 90  | 205 | 320 | 370 | 28 | 36 | 40 | 45 |
| 316 | 270 | 782 | 705 | 110 | 180 | 370 | 430 | 35 | 40 | 50 | 54 |
| 346 | 270 | 790 | 775 | 110 | 265 | 370 | 430 | 35 | 40 | 50 | 54 |
| 396 | 310 | 900 | 820 | 130 | 305 | 475 | 550 | 35 | 48 | 60 | 61 |
| 406 | 310 | 900 | 890 | 130 | 375 | 475 | 550 | 35 | 48 | 60 | 61 |

| P4C | i <sub>n</sub> = 100 - 180 |     | i <sub>n</sub> = 125 - 224 |     | i <sub>n</sub> = 200 - 355 |     | i <sub>n</sub> = 250 - 450 |    |
|-----|----------------------------|-----|----------------------------|-----|----------------------------|-----|----------------------------|----|
|     | D1                         | B1  | D1                         | B1  | D1                         | B1  | D1                         | B1 |
| 216 | 30                         | 50  | -                          | -   | 24                         | 80  | -                          | -  |
| 246 | -                          | -   | 30                         | 50  | -                          | -   | 24                         | 80 |
| 266 | 35                         | 60  | -                          | -   | 28                         | 50  | -                          | -  |
| 276 | -                          | -   | 35                         | 60  | -                          | -   | 28                         | 50 |
| 316 | 45                         | 100 | -                          | -   | 32                         | 80  | -                          | -  |
| 346 | -                          | -   | 45                         | 100 | -                          | -   | 32                         | 80 |
| 396 | 50                         | 100 | -                          | -   | -                          | -   | 38                         | 80 |
| 406 | -                          | -   | -                          | -   | 50                         | 100 | 38                         | 80 |

17.1 REDUCERS/GEARED MOTORS

17.1.5 B2C



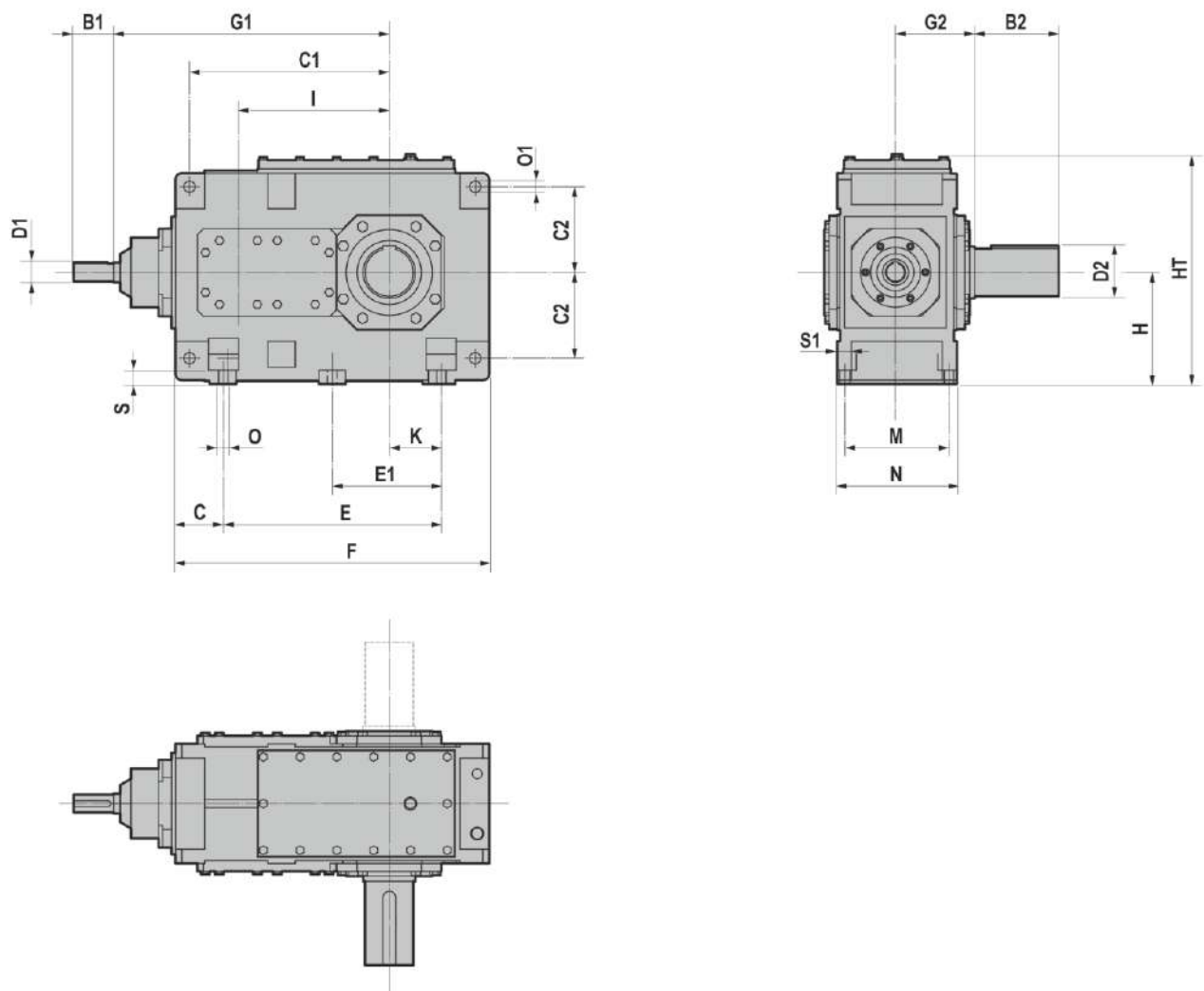
## 17.1 REDUCERS/GEARED MOTORS

| B2C | D2  | B2  | C   | C1  | C2  | E    | E1  | F    | G1   | G2  |
|-----|-----|-----|-----|-----|-----|------|-----|------|------|-----|
| 176 | 100 | 210 | 105 | 330 | 180 | 355  | -   | 565  | 535  | 200 |
| 196 | 110 | 210 | 105 | 365 | 180 | 435  | -   | 645  | 570  | 200 |
| 216 | 120 | 210 | 120 | 405 | 215 | 450  | -   | 690  | 640  | 235 |
| 246 | 130 | 250 | 120 | 450 | 215 | 555  | -   | 795  | 685  | 235 |
| 266 | 140 | 250 | 145 | 480 | 245 | 530  | -   | 820  | 755  | 270 |
| 276 | 160 | 300 | 145 | 530 | 245 | 630  | -   | 920  | 805  | 270 |
| 316 | 170 | 300 | 165 | 580 | 300 | 645  | -   | 975  | 925  | 320 |
| 346 | 180 | 300 | 165 | 650 | 300 | 800  | -   | 1130 | 995  | 320 |
| 396 | 200 | 350 | 100 | 675 | 340 | 930  | 465 | 1130 | 1070 | 390 |
| 406 | 210 | 350 | 100 | 745 | 340 | 1070 | 465 | 1270 | 1140 | 390 |

| B2C | H   | HT  | I   | K   | M   | N   | O  | O1 | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 176 | 230 | 482 | 185 | 100 | 285 | 320 | 19 | 24 | 28 | 30 |
| 196 | 230 | 482 | 220 | 145 | 285 | 320 | 19 | 24 | 28 | 30 |
| 216 | 280 | 572 | 225 | 130 | 340 | 380 | 24 | 28 | 35 | 36 |
| 246 | 280 | 582 | 270 | 190 | 340 | 380 | 24 | 28 | 35 | 36 |
| 266 | 320 | 662 | 265 | 155 | 390 | 440 | 28 | 36 | 40 | 48 |
| 276 | 320 | 662 | 315 | 205 | 390 | 440 | 28 | 36 | 40 | 48 |
| 316 | 380 | 782 | 320 | 180 | 470 | 530 | 35 | 40 | 50 | 54 |
| 346 | 380 | 790 | 390 | 265 | 470 | 530 | 35 | 40 | 50 | 54 |
| 396 | 440 | 900 | 370 | 305 | 580 | 655 | 35 | 48 | 60 | 61 |
| 406 | 440 | 900 | 440 | 375 | 580 | 655 | 35 | 48 | 60 | 61 |

| B2C | $i_n = 5 - 11,2$ |     | $i_n = 6,3 - 14$ |     |
|-----|------------------|-----|------------------|-----|
|     | D1               | B1  | D1               | B1  |
| 176 | 55               | 110 | -                | -   |
| 196 | -                | -   | 55               | 110 |
| 216 | 70               | 135 | -                | -   |
| 246 | -                | -   | 70               | 135 |
| 266 | 80               | 165 | -                | -   |
| 276 | -                | -   | 80               | 165 |
| 316 | 90               | 165 | -                | -   |
| 346 | -                | -   | 90               | 165 |
| 396 | 110              | 205 | -                | -   |
| 406 | -                | -   | 110              | 205 |

17.1.6 B3C



## 17.1 REDUCERS/GEARED MOTORS

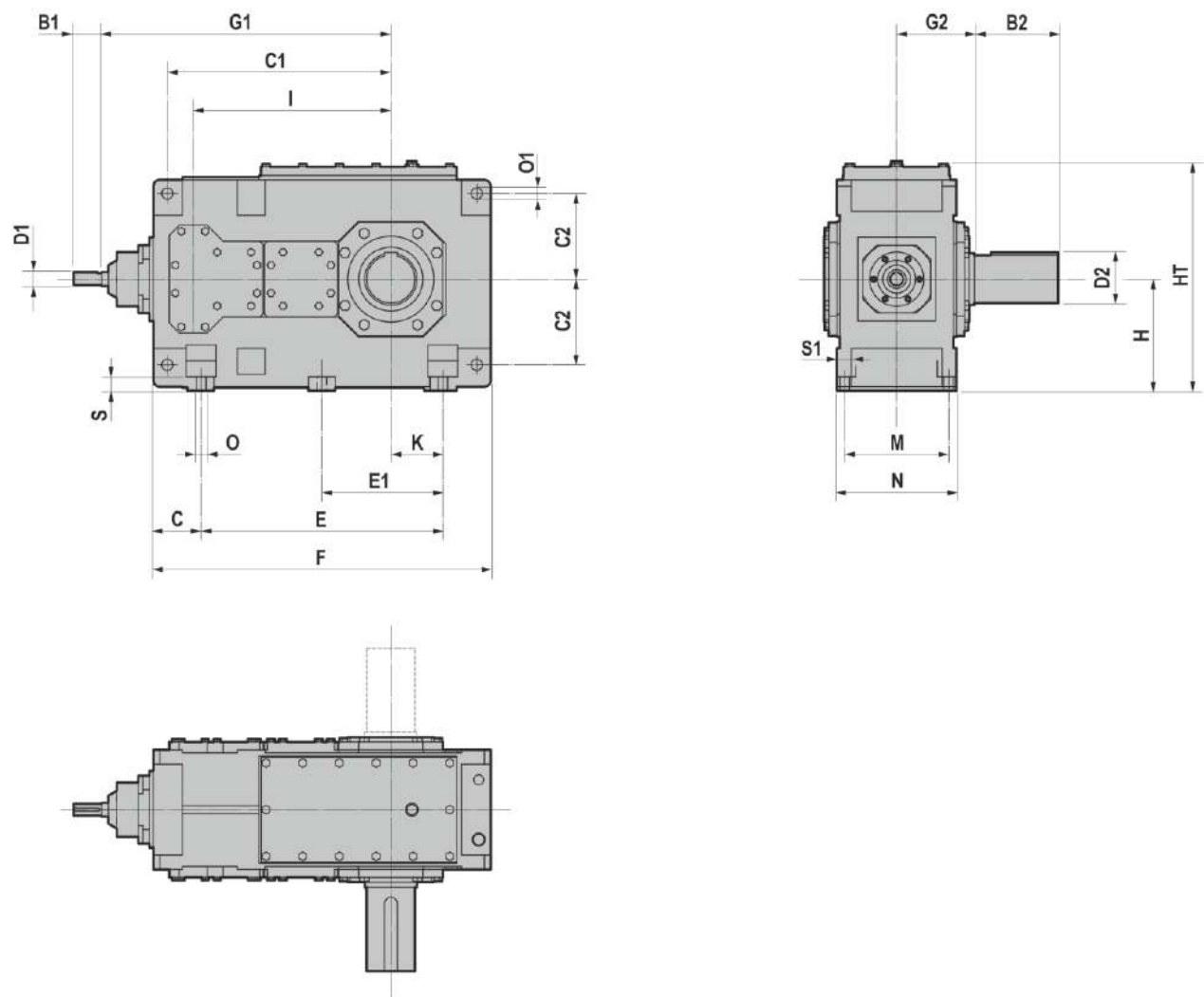
| B3C | D2  | B2  | C   | C1  | C2  | E    | E1  | F    | G1   | G2  |
|-----|-----|-----|-----|-----|-----|------|-----|------|------|-----|
| 176 | 100 | 210 | 105 | 405 | 180 | 430  | -   | 640  | 575  | 165 |
| 196 | 110 | 210 | 105 | 440 | 180 | 510  | -   | 720  | 610  | 165 |
| 216 | 120 | 210 | 120 | 500 | 215 | 545  | -   | 785  | 690  | 195 |
| 246 | 130 | 250 | 120 | 545 | 215 | 650  | -   | 890  | 735  | 195 |
| 266 | 140 | 250 | 145 | 585 | 245 | 635  | -   | 925  | 800  | 235 |
| 276 | 160 | 300 | 145 | 635 | 245 | 735  | -   | 1025 | 850  | 235 |
| 316 | 170 | 300 | 165 | 710 | 300 | 775  | -   | 1105 | 960  | 270 |
| 346 | 180 | 300 | 165 | 780 | 300 | 930  | -   | 1260 | 1030 | 270 |
| 396 | 200 | 350 | 100 | 835 | 340 | 1090 | 545 | 1290 | 1125 | 335 |
| 406 | 210 | 350 | 100 | 905 | 340 | 1230 | 685 | 1430 | 1195 | 335 |

| B3C | H   | HT  | I   | K   | M   | N   | O  | O1 | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 176 | 230 | 482 | 315 | 100 | 220 | 255 | 19 | 24 | 28 | 30 |
| 196 | 230 | 482 | 350 | 145 | 220 | 255 | 19 | 24 | 28 | 30 |
| 216 | 280 | 572 | 385 | 130 | 260 | 300 | 24 | 28 | 35 | 36 |
| 246 | 280 | 582 | 430 | 190 | 260 | 300 | 24 | 28 | 35 | 36 |
| 266 | 320 | 662 | 450 | 155 | 320 | 370 | 28 | 36 | 40 | 45 |
| 276 | 320 | 662 | 500 | 205 | 320 | 370 | 28 | 36 | 40 | 45 |
| 316 | 380 | 782 | 545 | 180 | 370 | 430 | 35 | 40 | 50 | 54 |
| 346 | 380 | 790 | 615 | 265 | 370 | 430 | 35 | 40 | 50 | 54 |
| 396 | 440 | 900 | 635 | 305 | 475 | 550 | 35 | 48 | 60 | 61 |
| 406 | 440 | 900 | 705 | 375 | 475 | 550 | 35 | 48 | 60 | 61 |

| B3C | $i_n = 12,5 - 45$ |     | $i_n = 16 - 56$ |     | $i_n = 50 - 71$ |     | $i_n = 63 - 90$ |     |
|-----|-------------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|
|     | D1                | B1  | D1              | B1  | D1              | B1  | D1              | B1  |
| 176 | 35                | 80  | -               | -   | 28              | 60  | -               | -   |
| 196 | -                 | -   | 35              | 80  | -               | -   | 28              | 60  |
| 216 | 45                | 100 | -               | -   | 35              | 80  | -               | -   |
| 246 | -                 | -   | 45              | 100 | -               | -   | 35              | 80  |
| 266 | 55                | 110 | -               | -   | 40              | 100 | -               | -   |
| 276 | -                 | -   | 55              | 110 | -               | -   | 40              | 100 |
| 316 | 70                | 135 | -               | -   | 50              | 110 | -               | -   |
| 346 | -                 | -   | 70              | 135 | -               | -   | 50              | 110 |
| 396 | 80                | 165 | -               | -   | 60              | 140 | -               | -   |
| 406 | -                 | -   | 80              | 165 | -               | -   | 60              | 140 |

17.1 REDUCERS/GEARED MOTORS

17.1.7 B4C



## 17.1 REDUCERS/GEARED MOTORS

| B4C | D2  | B2  | C   | C1   | C2  | E    | E1    | F    | G1   | G2  |
|-----|-----|-----|-----|------|-----|------|-------|------|------|-----|
| 176 | 100 | 210 | 105 | 455  | 180 | 480  | -     | 690  | 615  | 165 |
| 196 | 110 | 210 | 105 | 490  | 180 | 560  | -     | 770  | 650  | 165 |
| 216 | 120 | 210 | 120 | 560  | 215 | 605  | -     | 845  | 725  | 195 |
| 246 | 130 | 250 | 120 | 605  | 215 | 710  | -     | 950  | 770  | 195 |
| 266 | 140 | 250 | 145 | 660  | 245 | 710  | -     | 1000 | 840  | 235 |
| 276 | 160 | 300 | 145 | 710  | 245 | 810  | -     | 1100 | 890  | 235 |
| 316 | 170 | 300 | 165 | 805  | 300 | 870  | -     | 1200 | 1010 | 270 |
| 346 | 180 | 300 | 165 | 875  | 300 | 1025 | -     | 1355 | 1080 | 270 |
| 396 | 200 | 350 | 100 | 940  | 340 | 1195 | 597,5 | 1395 | 1170 | 335 |
| 406 | 210 | 350 | 100 | 1010 | 340 | 1335 | 737,5 | 1535 | 1240 | 335 |

| B4C | H   | HT  | I   | K   | M   | N   | O  | O1 | S  | S1 |
|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 176 | 230 | 482 | 405 | 100 | 220 | 255 | 24 | 19 | 28 | 30 |
| 196 | 230 | 482 | 440 | 145 | 220 | 255 | 24 | 19 | 28 | 30 |
| 216 | 280 | 572 | 495 | 130 | 260 | 300 | 28 | 24 | 35 | 36 |
| 246 | 280 | 582 | 540 | 190 | 260 | 300 | 28 | 24 | 35 | 36 |
| 266 | 320 | 662 | 580 | 155 | 320 | 370 | 36 | 28 | 40 | 45 |
| 276 | 320 | 662 | 630 | 205 | 320 | 370 | 36 | 28 | 40 | 45 |
| 316 | 380 | 782 | 705 | 180 | 370 | 430 | 40 | 35 | 50 | 54 |
| 346 | 380 | 790 | 775 | 265 | 370 | 430 | 40 | 35 | 50 | 54 |
| 396 | 440 | 900 | 820 | 305 | 475 | 550 | 48 | 35 | 60 | 61 |
| 406 | 440 | 900 | 890 | 375 | 475 | 550 | 48 | 35 | 60 | 61 |

| B4C | $i_n = 80 - 180$ |     | $i_n = 100 - 224$ |     | $i_n = 200 - 315$ |     | $i_n = 250 - 400$ |     |
|-----|------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|
|     | D1               | B1  | D1                | B1  | D1                | B1  | D1                | B1  |
| 176 | 28               | 55  | -                 | -   | 20                | 50  | -                 | -   |
| 196 | -                | -   | 28                | 55  | -                 | -   | 20                | 50  |
| 216 | 30               | 70  | -                 | -   | 25                | 60  | -                 | -   |
| 246 | -                | -   | 30                | 70  | -                 | -   | 25                | 60  |
| 266 | 35               | 80  | -                 | -   | 28                | 60  | -                 | -   |
| 276 | -                | -   | 35                | 80  | -                 | -   | 28                | 60  |
| 316 | 56               | 100 | -                 | -   | 35                | 80  | -                 | -   |
| 346 | -                | -   | 56                | 100 | -                 | -   | 35                | 80  |
| 396 | 55               | 110 | -                 | -   | 40                | 100 | -                 | -   |
| 406 | -                | -   | 55                | 110 | -                 | -   | 40                | 100 |

## 17.2 WEIGHTS

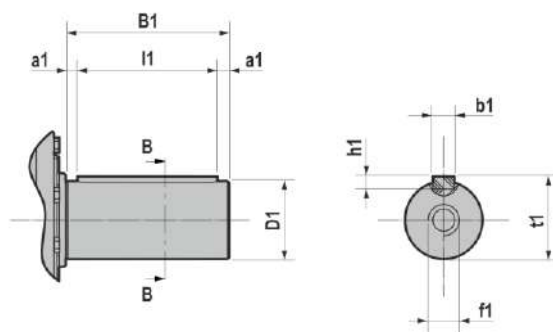
The values reported in the tables are referred to the weight of the gearbox without lubricant.

| PC  | [- kg] |      |      |      |
|-----|--------|------|------|------|
|     | P1C    | P2C  | P3C  | P4C  |
| 176 | 302    | 300  | 320  | -    |
| 196 | -      | 355  | 365  | -    |
| 216 | 547    | 505  | 540  | 550  |
| 246 | -      | 590  | 625  | 645  |
| 266 | 862    | 830  | 875  | 875  |
| 276 | -      | 960  | 1020 | 1010 |
| 316 | 1515   | 1335 | 1400 | 1460 |
| 346 | -      | 1615 | 1675 | 1725 |
| 396 | 2395   | 2000 | 2295 | 2390 |
| 406 | -      | 2570 | 2625 | 2730 |

| BC  | [- kg] |      |      |
|-----|--------|------|------|
|     | B2C    | B3C  | B4C  |
| 176 | 360    | 325  | 335  |
| 196 | 410    | 380  | 385  |
| 216 | 615    | 550  | 555  |
| 246 | 700    | 635  | 655  |
| 266 | 1000   | 890  | 890  |
| 276 | 1155   | 1020 | 1025 |
| 316 | 1640   | 1455 | 1485 |
| 346 | 1910   | 1730 | 1750 |
| 396 | 2450   | 2380 | 2395 |
| 406 | 2825   | 2750 | 2735 |

## 17.3 SHAFT END

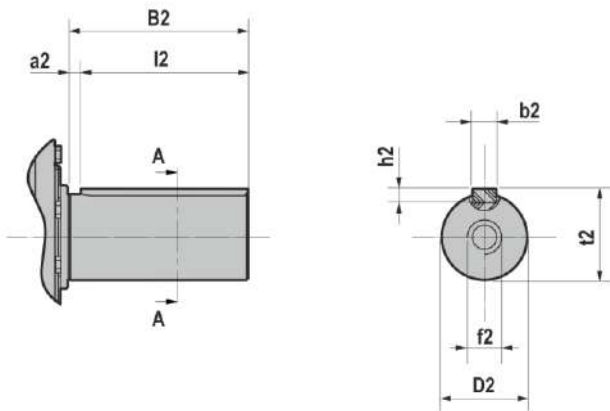
## 17.3.1 Input shaft end



| D1     | B1  | b1 | t1   | f1  | b1xh1xl1  | a1   |
|--------|-----|----|------|-----|-----------|------|
| 24 k6  | 40  | 8  | 27   | M10 | 8x7x30    | 5    |
| 25 k6  | 60  | 8  | 28   | M10 | 8x7x50    | 5    |
| 28 m6  | 50  | 8  | 31   | M10 | 8x7x40    | 5    |
| 28 m6  | 55  | 8  | 31   | M10 | 8x7x40    | 7,5  |
| 28 m6  | 60  | 8  | 31   | M10 | 8x7x50    | 5    |
| 30 m6  | 50  | 8  | 33   | M10 | 8x7x40    | 5    |
| 30 m6  | 70  | 8  | 33   | M10 | 8x7x60    | 5    |
| 32 m6  | 80  | 10 | 35   | M12 | 10x8x70   | 5    |
| 35 m6  | 60  | 10 | 38   | M12 | 10x8x50   | 5    |
| 35 m6  | 80  | 10 | 38   | M12 | 10x8x70   | 5    |
| 38 m6  | 80  | 10 | 41   | M12 | 10x8x70   | 5    |
| 40 m6  | 70  | 12 | 43   | M12 | 12x8x60   | 5    |
| 40 m6  | 100 | 12 | 43   | M12 | 12x8x90   | 5    |
| 42 m6  | 70  | 12 | 45   | M16 | 12x8x60   | 5    |
| 45 m6  | 80  | 14 | 48,5 | M16 | 14x9x70   | 5    |
| 45 m6  | 100 | 14 | 48,5 | M16 | 14x9x90   | 5    |
| 50 m6  | 80  | 14 | 53,5 | M16 | 14x9x70   | 5    |
| 50 m6  | 100 | 14 | 53,5 | M16 | 14x9x90   | 5    |
| 50 m6  | 110 | 14 | 53,5 | M16 | 14x9x100  | 5    |
| 55 m6  | 110 | 16 | 59   | M20 | 16x10x100 | 5    |
| 56 m6  | 110 | 16 | 60   | M20 | 16x10x100 | 5    |
| 60 m6  | 125 | 18 | 64   | M20 | 18x11x110 | 7,5  |
| 60 m6  | 135 | 18 | 64   | M20 | 18x11x120 | 7,5  |
| 60 m6  | 140 | 18 | 64   | M20 | 18x11x130 | 5    |
| 70 m6  | 120 | 20 | 74,5 | M20 | 20x12x110 | 5    |
| 70 m6  | 135 | 20 | 74,5 | M20 | 20x12x120 | 7,5  |
| 70 m6  | 140 | 20 | 74,5 | M20 | 20x12x130 | 5    |
| 75 m6  | 140 | 20 | 79,5 | M20 | 20x12x130 | 5    |
| 80 m6  | 165 | 22 | 85   | M20 | 22x14x140 | 12,5 |
| 85 m6  | 160 | 22 | 90   | M20 | 22x14x140 | 10   |
| 85 m6  | 170 | 22 | 90   | M20 | 22x14x150 | 10   |
| 90 m6  | 165 | 25 | 95   | M24 | 25x14x140 | 12,5 |
| 90 m6  | 170 | 25 | 95   | M24 | 25x14x150 | 10   |
| 100 m6 | 200 | 28 | 106  | M24 | 28x16x170 | 15   |
| 100 m6 | 205 | 28 | 106  | M24 | 28x16x170 | 17,5 |
| 100 m6 | 210 | 28 | 106  | M24 | 28x16x180 | 15   |
| 110 n6 | 200 | 28 | 116  | M24 | 28x16x170 | 15   |
| 110 n6 | 205 | 28 | 116  | M24 | 28x16x170 | 17,5 |
| 130 n6 | 240 | 32 | 137  | M24 | 32x18x210 | 15   |
| 130 n6 | 245 | 32 | 137  | M24 | 32x18x210 | 17,5 |
| 150 n6 | 245 | 36 | 158  | M24 | 36x20x210 | 17,5 |

17.3 SHAFT END

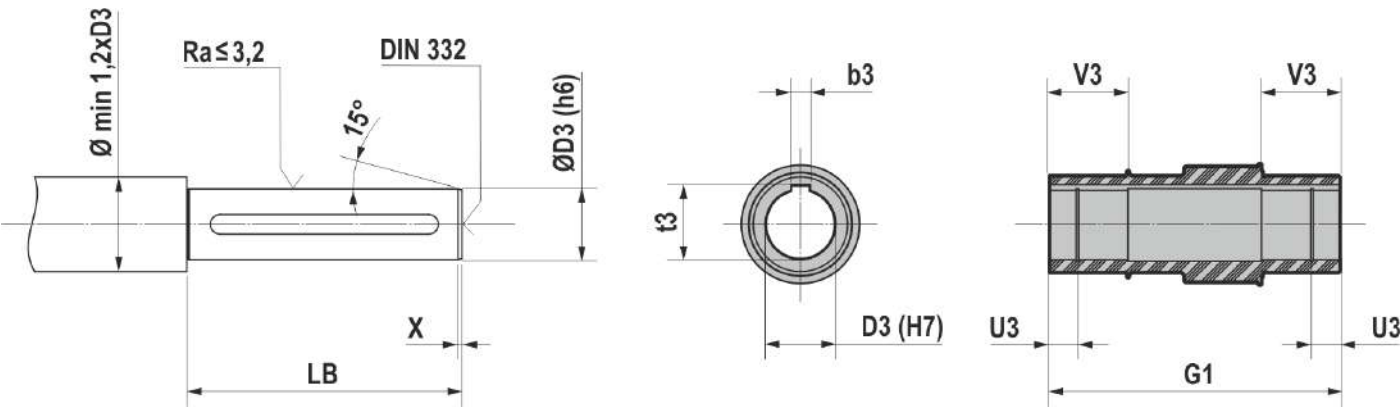
17.3.2 Output shaft end



| PC-BC | D2     | B2  | b2 | t2  | f2  | b2xh2xl2  | a2 |
|-------|--------|-----|----|-----|-----|-----------|----|
| 176   | 85 m6  | 160 | 22 | 90  | M20 | 22x14x130 | 15 |
| 176   | 100 m6 | 210 | 28 | 106 | M24 | 28x16x160 | 25 |
| 196   | 110 n6 | 210 | 28 | 116 | M24 | 28x16x160 | 25 |
| 216   | 105 n6 | 200 | 28 | 111 | M24 | 28x16x150 | 25 |
| 216   | 120 n6 | 210 | 32 | 127 | M24 | 32x18x160 | 25 |
| 246   | 130 n6 | 250 | 32 | 137 | M24 | 32x18x190 | 30 |
| 266   | 125 n6 | 210 | 32 | 132 | M24 | 32x18x160 | 25 |
| 266   | 140 n6 | 250 | 36 | 148 | M30 | 36x20x190 | 30 |
| 276   | 160 n6 | 300 | 36 | 169 | M30 | 36x22x220 | 40 |
| 316   | 150 n6 | 240 | 36 | 158 | M30 | 36x20x180 | 30 |
| 316   | 170 n6 | 300 | 40 | 179 | M30 | 40x22x220 | 40 |
| 346   | 180 n6 | 300 | 45 | 190 | M30 | 45x25x220 | 40 |
| 396   | 180 n6 | 310 | 45 | 190 | M30 | 45x25x230 | 40 |
| 396   | 200 n6 | 350 | 45 | 210 | M30 | 45x25x260 | 45 |
| 406   | 210 n6 | 350 | 50 | 221 | M30 | 50x28x260 | 45 |

Dimension also valid for double output shaft version.

18.1 LOW SPEED SHAFTS



| PC - BC | D3 (H7/h6) | b3 | t3    | G1  | U3 | V3 | LB  | X |
|---------|------------|----|-------|-----|----|----|-----|---|
| 176     | 95         | 25 | 100,4 | 330 | 0  | 0  | 328 | 5 |
| 196     | 105        | 28 | 111,4 | 330 | 0  | 0  | 328 | 5 |
| 216     | 115        | 32 | 122,4 | 390 | 0  | 0  | 388 | 5 |
| 246     | 125        | 32 | 132,4 | 390 | 0  | 0  | 388 | 6 |
| 266     | 135        | 36 | 143,4 | 470 | 0  | 0  | 467 | 6 |
| 276     | 150        | 36 | 158,4 | 470 | 0  | 0  | 467 | 6 |
| 316     | 165        | 40 | 174,4 | 540 | 0  | 0  | 537 | 7 |
| 346     | 180        | 45 | 190,4 | 540 | 0  | 0  | 537 | 7 |
| 396     | 190        | 45 | 200,4 | 670 | 0  | 0  | 667 | 8 |
| 406     | 210        | 50 | 221,4 | 670 | 0  | 0  | 667 | 8 |

### 18.2.1 Cooling and heating unit

On request the gear reducer can be supplied with:

- Cooling fan;
- Cooling coil with or without valve thermostatic;
- Oil heater.

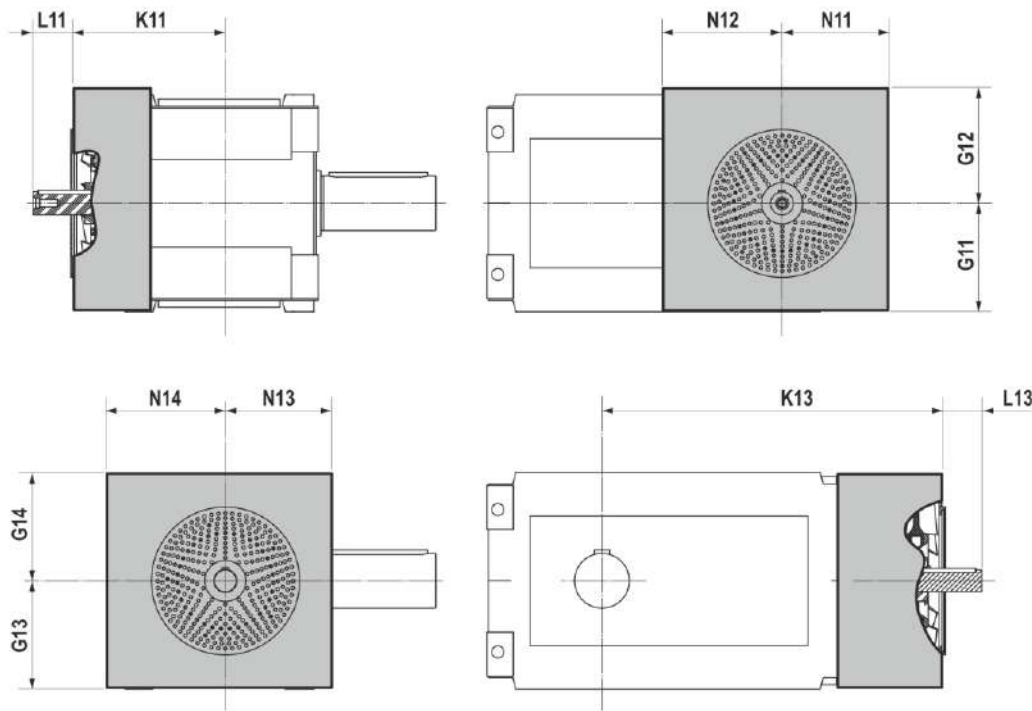
### 18.2.2 Lubrication and monitoring unit

On request the gear reducer can be supplied with:

- Bearings lubrication pump;
- Bearings lubrication motor pump;
- Pressure switch;
- Oil temperature sensor and bearing temperature sensor PT100 .

18.2 DEVICES

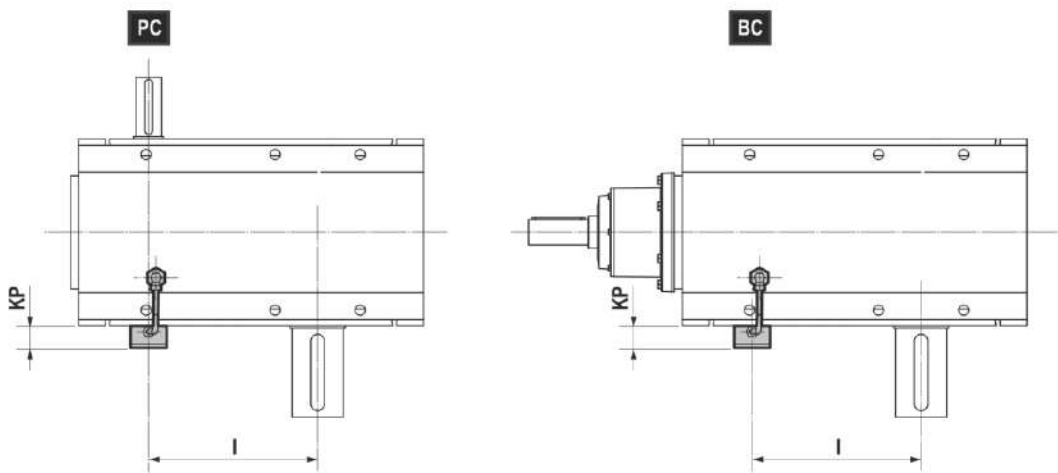
18.2.3 Cooling fan



| PC  | P1C |             |     |     |     | P2C |         |     |     |     | P3C |           |     |     |     |
|-----|-----|-------------|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----------|-----|-----|-----|
|     | G11 | L11         | K11 | N11 | N12 | G11 | L11     | K11 | N11 | N12 | G11 | L11       | K11 | N11 | N12 |
| 176 | 225 | 115/90/65   | 255 | 215 | 115 | 225 | 65/45   | 230 | 260 | 175 | 137 | 15/-5/-15 | 215 | 135 | 140 |
| 196 | -   | -           | -   | -   | -   | 225 | 65/45   | 230 | 260 | 175 | 137 | 15/-5/-15 | 215 | 135 | 140 |
| 216 | 255 | 150/90      | 300 | 250 | 120 | 272 | 90/65   | 255 | 305 | 210 | 157 | 20/0/-10  | 245 | 160 | 180 |
| 246 | -   | -           | -   | -   | -   | 272 | 90/65   | 255 | 305 | 210 | 157 | 20/0/-10  | 245 | 160 | 180 |
| 266 | 300 | 150/115/90  | 330 | 265 | 140 | 312 | 95      | 285 | 355 | 240 | 182 | 60/35/15  | 295 | 190 | 205 |
| 276 | -   | -           | -   | -   | -   | 312 | 95      | 285 | 355 | 240 | 182 | 60/35/15  | 295 | 190 | 205 |
| 316 | 360 | 190/155/120 | 375 | 330 | 190 | 372 | 115     | 325 | 420 | 285 | 218 | 50/10/0   | 325 | 220 | 255 |
| 346 | -   | -           | -   | -   | -   | 372 | 115/90  | 325 | 420 | 285 | 218 | 50/10/0   | 325 | 220 | 255 |
| 396 | 415 | 180/145     | 430 | 350 | -   | 430 | 150/115 | 385 | 460 | 330 | 225 | 90        | 380 | 225 | 212 |
| 406 | -   | -           | -   | -   | -   | 430 | 150/115 | 385 | 460 | 330 | 225 | 90        | 380 | 225 | 212 |

| BC  | B2C |     |     |       |     | B3C |     |        |      |     |
|-----|-----|-----|-----|-------|-----|-----|-----|--------|------|-----|
|     | G13 | G14 | L13 | K13   | N13 | G13 | G14 | L13    | K13  | N13 |
| 176 | 220 | 235 | 40  | 557,5 | 215 | 220 | 235 | 50/30  | 605  | 168 |
| 196 | 220 | 235 | 40  | 637,5 | 215 | 220 | 235 | 50/30  | 640  | 168 |
| 216 | 270 | 285 | 55  | 669   | 250 | 275 | 275 | 70/50  | 720  | 193 |
| 246 | 270 | 285 | 55  | 789   | 250 | 275 | 275 | 70/50  | 765  | 193 |
| 266 | 310 | 325 | 75  | 790   | 270 | 315 | 325 | 65/55  | 845  | 231 |
| 276 | 310 | 325 | 75  | 915   | 270 | 315 | 325 | 65/55  | 895  | 231 |
| 316 | 370 | 385 | 80  | 951   | 328 | 370 | 385 | 85/60  | 1010 | 263 |
| 346 | 370 | 385 | 80  | 1126  | 328 | 370 | 385 | 85/60  | 1080 | 263 |
| 396 | 430 | 450 | 95  | 1130  | 375 | 425 | 435 | 110/85 | 1180 | 325 |
| 406 | 430 | 450 | 95  | 1200  | 375 | 425 | 435 | 110/85 | 1250 | 325 |

18.2.4 Bearings lubrication pump



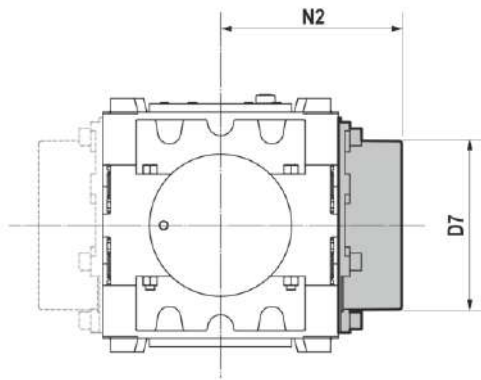
| PC  | P2C |     | P3C |     | P4C |     |
|-----|-----|-----|-----|-----|-----|-----|
|     | KP  | I   | KP  | I   | KP  | I   |
| 176 | 150 | 315 | 190 | 405 | -   | -   |
| 196 | 150 | 350 | 190 | 440 | -   | -   |
| 216 | 145 | 385 | 185 | 495 | 160 | 495 |
| 246 | 145 | 430 | 185 | 540 | 160 | 540 |
| 266 | 135 | 450 | 170 | 580 | 170 | 580 |
| 276 | 135 | 500 | 170 | 630 | 170 | 630 |
| 316 | 145 | 545 | 170 | 705 | 170 | 705 |
| 346 | 145 | 615 | 170 | 775 | 170 | 775 |
| 396 | 130 | 635 | 170 | 820 | -   | -   |
| 406 | 130 | 705 | 170 | 890 | -   | -   |

| BC  | B2C |     | B3C |     | B4C |     |
|-----|-----|-----|-----|-----|-----|-----|
|     | KP  | I   | KP  | I   | KP  | I   |
| 176 | 190 | 160 | 190 | 315 | 200 | 405 |
| 196 | 190 | 185 | 190 | 350 | 200 | 440 |
| 216 | 200 | 220 | 190 | 385 | 120 | 495 |
| 246 | 200 | 270 | 190 | 430 | 120 | 540 |
| 266 | 200 | 265 | 180 | 450 | 120 | 580 |
| 276 | 200 | 315 | 180 | 500 | 120 | 630 |
| 316 | 200 | 320 | 180 | 545 | 130 | 705 |
| 346 | 200 | 390 | 180 | 615 | 130 | 775 |
| 396 | 200 | 370 | 170 | 635 | -   | -   |
| 406 | 200 | 440 | 170 | 705 | -   | -   |

18.3.1 Backstop device

Gear reducers may be equipped with backstop. The backstop allows shafts to rotate in one direction only. It is essential that while ordering you specify the direction of free rotation of the output shaft, according to the white or black arrow. Please see relevant paragraph "DIRECTION OF ROTATION. Please contact MOTOVARIO TECHNICAL SERVICE to verify dimensions of backstop.

18.3.2 Output shaft cover

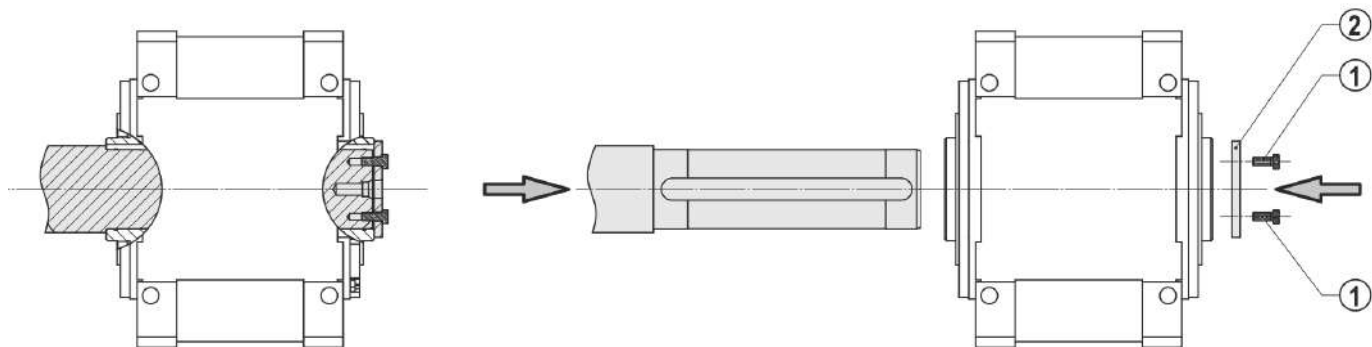


| PC-BC | D7  | N2                              |                                      |
|-------|-----|---------------------------------|--------------------------------------|
|       |     | Hollow output shaft with keyway | Hollow output shaft with shrink disc |
| 176   | 275 | 205                             | 260                                  |
| 196   | 285 | 205                             | 255                                  |
| 216   | 330 | 235                             | 305                                  |
| 246   | 340 | 235                             | 305                                  |
| 266   | 360 | 280                             | 355                                  |
| 276   | 395 | 280                             | 365                                  |
| 316   | 435 | 315                             | 420                                  |
| 346   | 450 | 315                             | 420                                  |
| 396   | 500 | 380                             | 505                                  |
| 406   | 525 | 380                             | 505                                  |

### 18.3.3 Axial fixing washer

Mounting kit for hollow shaft gear reducers with keyway. On request delivery includes:

1. Retaining bolt
2. Axial fixing washer



### 18.3.4 Optional seals

On request the gear reducer can be supplied with:

- Labyrinth seal with grease nipple. Recommended for dust and aggressive environments. Overall dimensions of shaft in an axial direction may differ from standard dimensions. Please contact MOTOVARIO TECHNICAL SERVICE.
- Sealing rings in FPM (FKM) fluorinated rubber. Recommended for ambient temperatures above 40 °C, in aggressive industrial environments and with high input speeds. Do not use at ambient temperatures below 10 °C.
- Dual seal. Available both on input and output shaft, in NBR rubber as well as in FPM (FKM) fluorinated rubber.

### 18.3.5 Other Accessories and Options

On request the gear reducer can be supplied with:

- Filling plug with filter;
- Special painting with C4, C5I and C5M corrosive classes according to UNI EN ISO 12944;

## 19.1 PC GEAR REDUCER - 1750 rpm

P1C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 5760                    | 1,26 | 858                     | 1390                    |
| 6050                    | 1,38 | 821                     | 1270                    |
| 6190                    | 1,59 | 729                     | 1100                    |
| 6340                    | 1,84 | 644                     | 952                     |
| 6770                    | 2,03 | 622                     | 860                     |
| 6910                    | 2,26 | 572                     | 775                     |
| 6910                    | 2,52 | 513                     | 694                     |
| 6910                    | 2,83 | 457                     | 619                     |
| 6910                    | 3,19 | 405                     | 549                     |
| 6840                    | 3,59 | 356                     | 487                     |
| 6910                    | 4,06 | 318                     | 431                     |
| 5540                    | 4,62 | 224                     | 379                     |
| 5180                    | 4,90 | 198                     | 357                     |
| 4970                    | 5,56 | 167                     | 315                     |

P1C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17800                   | 1,27 | 2620                    | 1380                    |
| 18100                   | 1,40 | 2420                    | 1250                    |
| 19500                   | 1,63 | 2250                    | 1080                    |
| 20200                   | 1,80 | 2090                    | 972                     |
| 20700                   | 2,00 | 1930                    | 875                     |
| 20700                   | 2,23 | 1730                    | 784                     |
| 20700                   | 2,50 | 1550                    | 700                     |
| 19600                   | 2,74 | 1340                    | 638                     |
| 20200                   | 3,21 | 1180                    | 546                     |
| 20600                   | 3,59 | 1070                    | 487                     |
| 20700                   | 4,05 | 954                     | 432                     |
| 17700                   | 4,38 | 756                     | 399                     |
| 16900                   | 4,96 | 638                     | 353                     |
| 14500                   | 5,68 | 476                     | 308                     |

P1C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 48500                   | 1,59 | 5710                    | 1100                    |
| 51000                   | 1,84 | 5190                    | 952                     |
| 52500                   | 2,03 | 4830                    | 860                     |
| 54100                   | 2,26 | 4480                    | 775                     |
| 55400                   | 2,52 | 4110                    | 694                     |
| 55400                   | 2,93 | 3540                    | 598                     |
| 52600                   | 3,21 | 3070                    | 546                     |
| 53600                   | 3,59 | 2790                    | 487                     |
| 54500                   | 4,05 | 2520                    | 432                     |
| 44400                   | 4,62 | 1800                    | 379                     |
| 42000                   | 4,90 | 1600                    | 357                     |
| 39900                   | 5,56 | 1340                    | 315                     |

P1C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10900                   | 1,26 | 1620                    | 1390                    |
| 11100                   | 1,39 | 1490                    | 1260                    |
| 11700                   | 1,61 | 1370                    | 1090                    |
| 12500                   | 1,77 | 1320                    | 986                     |
| 12800                   | 1,97 | 1220                    | 890                     |
| 12800                   | 2,31 | 1040                    | 758                     |
| 12800                   | 2,58 | 928                     | 678                     |
| 12300                   | 2,80 | 822                     | 625                     |
| 12500                   | 3,13 | 748                     | 559                     |
| 12800                   | 3,52 | 680                     | 497                     |
| 12800                   | 4,00 | 599                     | 438                     |
| 11400                   | 4,40 | 483                     | 398                     |
| 9940                    | 4,91 | 379                     | 357                     |
| 9430                    | 5,53 | 319                     | 317                     |

P1C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33100                   | 1,64 | 3790                    | 1070                    |
| 34300                   | 1,81 | 3550                    | 969                     |
| 35400                   | 2,00 | 3310                    | 875                     |
| 36400                   | 2,22 | 3070                    | 788                     |
| 36400                   | 2,48 | 2750                    | 706                     |
| 36400                   | 2,78 | 2450                    | 629                     |
| 34600                   | 3,08 | 2100                    | 568                     |
| 36100                   | 3,48 | 1940                    | 503                     |
| 36400                   | 3,91 | 1740                    | 448                     |
| 33100                   | 4,42 | 1400                    | 396                     |
| 27900                   | 5,15 | 1010                    | 340                     |
| 26300                   | 5,47 | 898                     | 320                     |

19.1 PC GEAR REDUCER - 1750 rpm

P2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 8130                    | 6,29 | 247                     | 278         |
| 8510                    | 7,21 | 225                     | 243         |
| 8510                    | 7,89 | 206                     | 222         |
| 8510                    | 8,65 | 188                     | 202         |
| 7980                    | 10,0 | 152                     | 175         |
| 8060                    | 11,1 | 139                     | 158         |
| 8510                    | 12,3 | 132                     | 142         |
| 8510                    | 13,8 | 118                     | 127         |
| 8510                    | 15,6 | 104                     | 112         |
| 7980                    | 17,5 | 87,1                    | 100         |
| 8510                    | 19,5 | 83,2                    | 89,6        |
| 8280                    | 22,0 | 71,9                    | 79,5        |

P2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 15400                   | 6,09 | 484                     | 287         |
| 15400                   | 7,05 | 418                     | 248         |
| 15400                   | 7,80 | 378                     | 224         |
| 15400                   | 8,66 | 340                     | 202         |
| 15400                   | 9,66 | 305                     | 181         |
| 15400                   | 10,6 | 277                     | 164         |
| 15400                   | 11,8 | 248                     | 148         |
| 15400                   | 13,9 | 211                     | 126         |
| 15400                   | 15,7 | 187                     | 111         |
| 14400                   | 17,6 | 157                     | 99,4        |
| 14400                   | 19,7 | 140                     | 88,6        |
| 15000                   | 21,0 | 137                     | 83,4        |

P2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 25600                   | 6,26 | 781                     | 280         |
| 25600                   | 7,25 | 675                     | 241         |
| 25600                   | 8,02 | 610                     | 218         |
| 25600                   | 8,90 | 549                     | 197         |
| 25600                   | 9,93 | 492                     | 176         |
| 25600                   | 11,1 | 439                     | 157         |
| 25600                   | 12,6 | 389                     | 139         |
| 25600                   | 14,2 | 345                     | 124         |
| 25600                   | 16,0 | 306                     | 110         |
| 25600                   | 18,2 | 269                     | 96,1        |
| 25600                   | 19,3 | 253                     | 90,6        |
| 25200                   | 21,9 | 219                     | 79,9        |

P2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 10300                   | 7,79 | 251                     | 225         |
| 10900                   | 8,94 | 234                     | 196         |
| 10900                   | 9,78 | 214                     | 179         |
| 10900                   | 10,7 | 195                     | 163         |
| 10300                   | 12,4 | 158                     | 141         |
| 10300                   | 13,7 | 143                     | 127         |
| 10900                   | 15,3 | 137                     | 115         |
| 10900                   | 17,1 | 122                     | 102         |
| 10900                   | 19,3 | 108                     | 90,6        |
| 10300                   | 21,7 | 90,3                    | 80,7        |
| 10900                   | 24,2 | 85,7                    | 72,3        |
| 10600                   | 27,3 | 73,9                    | 64,2        |

P2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 19500                   | 7,68 | 484                     | 228         |
| 19500                   | 8,89 | 418                     | 197         |
| 19500                   | 9,83 | 378                     | 178         |
| 19500                   | 10,9 | 340                     | 160         |
| 19500                   | 12,2 | 305                     | 144         |
| 19500                   | 13,4 | 277                     | 130         |
| 19400                   | 14,9 | 248                     | 118         |
| 19500                   | 17,6 | 211                     | 99,6        |
| 19500                   | 19,8 | 187                     | 88,3        |
| 18200                   | 22,2 | 157                     | 78,9        |
| 18200                   | 24,9 | 140                     | 70,3        |
| 19000                   | 26,5 | 137                     | 66,1        |

P2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 32100                   | 7,85 | 780                     | 223         |
| 32100                   | 9,09 | 674                     | 193         |
| 32100                   | 10,1 | 609                     | 174         |
| 32100                   | 11,2 | 548                     | 157         |
| 32100                   | 12,5 | 492                     | 141         |
| 32100                   | 14,0 | 438                     | 125         |
| 32100                   | 15,8 | 388                     | 111         |
| 32100                   | 17,7 | 345                     | 98,6        |
| 32100                   | 20,0 | 306                     | 87,4        |
| 32100                   | 22,8 | 268                     | 76,7        |
| 32100                   | 24,2 | 253                     | 72,3        |
| 31600                   | 27,5 | 220                     | 63,7        |

## 19.1 PC GEAR REDUCER - 1750 rpm

## P2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 45100                   | 6,25 | 1380                    | 280                     |
| 45100                   | 6,90 | 1250                    | 254                     |
| 45100                   | 7,64 | 1130                    | 229                     |
| 45100                   | 8,97 | 959                     | 195                     |
| 45100                   | 10,0 | 856                     | 174                     |
| 45100                   | 10,9 | 790                     | 161                     |
| 45100                   | 12,2 | 707                     | 144                     |
| 45100                   | 13,7 | 628                     | 128                     |
| 45100                   | 15,6 | 553                     | 112                     |
| 45100                   | 17,1 | 503                     | 102                     |
| 45100                   | 19,7 | 437                     | 88,8                    |
| 44300                   | 21,5 | 394                     | 81,4                    |

## P2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 65400                   | 7,10 | 1760                    | 246                     |
| 65400                   | 7,89 | 1580                    | 222                     |
| 65400                   | 8,80 | 1420                    | 199                     |
| 65400                   | 9,86 | 1270                    | 177                     |
| 65400                   | 10,8 | 1150                    | 162                     |
| 65400                   | 12,7 | 986                     | 138                     |
| 65400                   | 14,2 | 881                     | 124                     |
| 65400                   | 16,0 | 781                     | 110                     |
| 65400                   | 17,3 | 722                     | 101                     |
| 65400                   | 19,5 | 639                     | 89,7                    |
| 65400                   | 66,4 | 188                     | 26,4                    |

## P2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 56100                   | 7,94 | 1350                    | 220                     |
| 56100                   | 8,77 | 1220                    | 199                     |
| 56100                   | 9,72 | 1100                    | 180                     |
| 56100                   | 11,4 | 938                     | 153                     |
| 56100                   | 12,8 | 838                     | 137                     |
| 56100                   | 13,8 | 773                     | 126                     |
| 56100                   | 15,5 | 692                     | 113                     |
| 56100                   | 17,4 | 614                     | 100                     |
| 56100                   | 19,8 | 541                     | 88,5                    |
| 56100                   | 21,8 | 492                     | 80,4                    |
| 56100                   | 24,3 | 441                     | 72,2                    |
| 55100                   | 27,3 | 385                     | 64,0                    |

## P2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 81300                   | 7,94 | 1950                    | 220                     |
| 81300                   | 8,80 | 1760                    | 199                     |
| 81300                   | 9,78 | 1590                    | 179                     |
| 81300                   | 10,9 | 1420                    | 160                     |
| 81300                   | 12,2 | 1270                    | 143                     |
| 81300                   | 13,4 | 1160                    | 131                     |
| 81300                   | 15,7 | 990                     | 112                     |
| 81300                   | 17,6 | 884                     | 99,7                    |
| 81300                   | 19,8 | 784                     | 88,4                    |
| 81300                   | 21,4 | 725                     | 81,7                    |
| 81300                   | 24,2 | 642                     | 72,4                    |

19.1 PC GEAR REDUCER - 1750 rpm

P3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 8820                    | 25,0 | 68,7                    | 70,0        |
| 8820                    | 28,5 | 60,3                    | 61,4        |
| 8820                    | 31,2 | 55,2                    | 56,2        |
| 8820                    | 34,2 | 50,3                    | 51,2        |
| 8820                    | 39,5 | 43,5                    | 44,3        |
| 8820                    | 43,7 | 39,3                    | 40,0        |
| 8820                    | 48,7 | 35,3                    | 35,9        |
| 8820                    | 54,5 | 31,5                    | 32,1        |
| 8820                    | 61,5 | 27,9                    | 28,4        |
| 8820                    | 69,7 | 24,6                    | 25,1        |
| 8820                    | 78,7 | 21,8                    | 22,2        |
| 8820                    | 86,8 | 19,8                    | 20,2        |

P3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 16500                   | 25,5 | 126                     | 68,5        |
| 16500                   | 27,7 | 116                     | 63,2        |
| 16500                   | 31,4 | 102                     | 55,7        |
| 16500                   | 34,3 | 93,8                    | 51,0        |
| 16500                   | 39,3 | 81,8                    | 44,5        |
| 16500                   | 43,2 | 74,4                    | 40,5        |
| 16500                   | 50,3 | 63,9                    | 34,8        |
| 16500                   | 56,0 | 57,4                    | 31,2        |
| 16500                   | 62,9 | 51,1                    | 27,8        |
| 16500                   | 71,1 | 45,2                    | 24,6        |
| 16500                   | 78,6 | 40,9                    | 22,3        |
| 15200                   | 89,1 | 33,3                    | 19,6        |

P3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 27100                   | 25,4 | 208                     | 68,8        |
| 27100                   | 29,2 | 181                     | 60,0        |
| 27100                   | 31,9 | 166                     | 54,8        |
| 27100                   | 35,0 | 151                     | 50,0        |
| 27100                   | 40,5 | 131                     | 43,2        |
| 27100                   | 44,8 | 118                     | 39,0        |
| 27100                   | 49,9 | 106                     | 35,1        |
| 27100                   | 55,9 | 94,7                    | 31,3        |
| 27100                   | 63,0 | 83,9                    | 27,8        |
| 27100                   | 70,8 | 74,7                    | 24,7        |
| 27100                   | 79,0 | 66,9                    | 22,1        |
| 26200                   | 89,1 | 57,4                    | 19,7        |

P3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11800                   | 31,0 | 74,1                    | 56,5        |
| 11800                   | 35,3 | 65,0                    | 49,6        |
| 11800                   | 38,6 | 59,5                    | 45,3        |
| 11800                   | 42,4 | 54,2                    | 41,3        |
| 11800                   | 49,0 | 46,9                    | 35,7        |
| 11800                   | 54,2 | 42,4                    | 32,3        |
| 11800                   | 60,3 | 38,1                    | 29,0        |
| 11800                   | 67,6 | 34,0                    | 25,9        |
| 11800                   | 76,3 | 30,1                    | 22,9        |
| 11800                   | 86,4 | 26,6                    | 20,2        |
| 11000                   | 97,6 | 22,0                    | 17,9        |
| 11400                   | 108  | 20,7                    | 16,3        |

P3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20700                   | 32,2 | 125                     | 54,3        |
| 20700                   | 34,9 | 115                     | 50,1        |
| 20700                   | 39,6 | 102                     | 44,2        |
| 20700                   | 43,2 | 93,2                    | 40,5        |
| 20700                   | 49,5 | 81,3                    | 35,3        |
| 20700                   | 54,5 | 73,9                    | 32,1        |
| 20700                   | 63,4 | 63,5                    | 27,6        |
| 20700                   | 70,7 | 57,0                    | 24,8        |
| 20700                   | 79,3 | 50,8                    | 22,1        |
| 20700                   | 89,7 | 44,9                    | 19,5        |
| 20700                   | 99,1 | 40,7                    | 17,7        |
| 19200                   | 112  | 33,2                    | 15,6        |

P3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 33300                   | 31,9 | 203                     | 54,9        |
| 33300                   | 36,6 | 177                     | 47,8        |
| 33300                   | 40,0 | 162                     | 43,7        |
| 33300                   | 43,9 | 148                     | 39,9        |
| 33300                   | 50,7 | 128                     | 34,5        |
| 33300                   | 56,2 | 115                     | 31,1        |
| 33300                   | 62,5 | 104                     | 28,0        |
| 33300                   | 70,0 | 92,6                    | 25,0        |
| 33300                   | 79,0 | 82,1                    | 22,1        |
| 33300                   | 88,7 | 73,1                    | 19,7        |
| 33300                   | 99,1 | 65,5                    | 17,7        |
| 32500                   | 112  | 56,8                    | 15,7        |

## 19.1 PC GEAR REDUCER - 1750 rpm

## P3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 48300                   | 24,7 | 381                     | 70,8                    |
| 48300                   | 28,6 | 329                     | 61,2                    |
| 48300                   | 31,6 | 297                     | 55,3                    |
| 48300                   | 35,1 | 268                     | 49,8                    |
| 48300                   | 39,2 | 240                     | 44,6                    |
| 48300                   | 43,2 | 218                     | 40,5                    |
| 48300                   | 47,9 | 196                     | 36,5                    |
| 48300                   | 56,6 | 166                     | 30,9                    |
| 48300                   | 63,8 | 148                     | 27,4                    |
| 48300                   | 71,4 | 132                     | 24,5                    |
| 48300                   | 80,1 | 117                     | 21,8                    |
| 48300                   | 85,1 | 110                     | 20,6                    |

## P3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 66900                   | 22,0 | 592                     | 79,5                    |
| 66900                   | 25,4 | 514                     | 69,0                    |
| 66900                   | 29,4 | 444                     | 59,6                    |
| 66900                   | 32,5 | 401                     | 53,8                    |
| 66900                   | 36,1 | 361                     | 48,5                    |
| 66900                   | 40,3 | 324                     | 43,5                    |
| 66900                   | 45,1 | 289                     | 38,8                    |
| 66900                   | 51,0 | 256                     | 34,3                    |
| 66900                   | 57,4 | 227                     | 30,5                    |
| 66900                   | 64,7 | 202                     | 27,0                    |
| 66900                   | 73,8 | 177                     | 23,7                    |
| 66900                   | 78,3 | 167                     | 22,4                    |
| 66900                   | 88,8 | 147                     | 19,7                    |

## P3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 58700                   | 31,4 | 364                     | 55,7                    |
| 58700                   | 36,4 | 315                     | 48,1                    |
| 58700                   | 40,2 | 284                     | 43,5                    |
| 58700                   | 44,7 | 256                     | 39,2                    |
| 58700                   | 49,8 | 229                     | 35,1                    |
| 58700                   | 54,9 | 208                     | 31,9                    |
| 58700                   | 60,9 | 188                     | 28,7                    |
| 58700                   | 71,9 | 159                     | 24,3                    |
| 58700                   | 81,1 | 141                     | 21,6                    |
| 58700                   | 90,8 | 126                     | 19,3                    |
| 58700                   | 102  | 112                     | 17,2                    |
| 58700                   | 108  | 106                     | 16,2                    |

## P3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 82800                   | 27,3 | 592                     | 64,1                    |
| 82800                   | 31,4 | 514                     | 55,6                    |
| 82800                   | 36,4 | 444                     | 48,1                    |
| 82800                   | 40,3 | 401                     | 43,4                    |
| 82800                   | 44,7 | 361                     | 39,1                    |
| 82800                   | 49,9 | 324                     | 35,1                    |
| 82800                   | 56,0 | 289                     | 31,3                    |
| 82800                   | 63,2 | 256                     | 27,7                    |
| 82800                   | 71,1 | 227                     | 24,6                    |
| 82800                   | 80,2 | 201                     | 21,8                    |
| 82800                   | 91,5 | 177                     | 19,1                    |
| 82800                   | 97,0 | 166                     | 18,0                    |
| 82800                   | 110  | 147                     | 15,9                    |

19.1 PC GEAR REDUCER - 1750 rpm

P4C 216

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 16500                   | 102 | 32,3                    | 17,2        |
| 16500                   | 115 | 28,5                    | 15,2        |
| 16500                   | 126 | 26,1                    | 13,9        |
| 16500                   | 144 | 22,8                    | 12,2        |
| 16500                   | 158 | 20,8                    | 11,1        |
| 16500                   | 175 | 18,8                    | 10,0        |
| 16500                   | 194 | 17,0                    | 9,04        |
| 16500                   | 229 | 14,4                    | 7,66        |
| 16500                   | 258 | 12,7                    | 6,79        |
| 16500                   | 289 | 11,4                    | 6,06        |
| 16500                   | 305 | 10,8                    | 5,73        |
| 14900                   | 344 | 8,62                    | 5,09        |

P4C 266

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 27100                   | 101 | 53,4                    | 17,3        |
| 27100                   | 115 | 46,9                    | 15,2        |
| 27100                   | 126 | 42,9                    | 13,9        |
| 27100                   | 138 | 39,1                    | 12,7        |
| 27100                   | 160 | 33,8                    | 10,9        |
| 27100                   | 177 | 30,5                    | 9,89        |
| 27100                   | 197 | 27,4                    | 8,88        |
| 27100                   | 221 | 24,5                    | 7,93        |
| 27100                   | 249 | 21,7                    | 7,03        |
| 27100                   | 282 | 19,1                    | 6,20        |
| 27100                   | 319 | 17,0                    | 5,49        |
| 27100                   | 351 | 15,4                    | 4,98        |

P4C 316

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 46800                   | 104 | 90,0                    | 16,9        |
| 46800                   | 112 | 82,9                    | 15,6        |
| 46800                   | 128 | 73,1                    | 13,7        |
| 46800                   | 139 | 67,0                    | 12,6        |
| 46800                   | 159 | 58,5                    | 11,0        |
| 46800                   | 175 | 53,2                    | 9,98        |
| 46800                   | 204 | 45,7                    | 8,57        |
| 46800                   | 227 | 41,0                    | 7,70        |
| 46800                   | 255 | 36,6                    | 6,86        |
| 46800                   | 289 | 32,3                    | 6,06        |
| 46800                   | 319 | 29,2                    | 5,49        |
| 46800                   | 361 | 25,8                    | 4,84        |

P4C 246

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 20700                   | 128 | 32,2                    | 13,7        |
| 20700                   | 145 | 28,3                    | 12,0        |
| 20700                   | 159 | 26,0                    | 11,0        |
| 20700                   | 182 | 22,7                    | 9,64        |
| 20700                   | 200 | 20,6                    | 8,77        |
| 20700                   | 220 | 18,7                    | 7,95        |
| 20700                   | 244 | 16,9                    | 7,17        |
| 20700                   | 288 | 14,3                    | 6,07        |
| 20700                   | 325 | 12,7                    | 5,38        |
| 20700                   | 364 | 11,3                    | 4,81        |
| 20700                   | 385 | 10,7                    | 4,55        |
| 19200                   | 434 | 8,83                    | 4,03        |

P4C 276

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 33600                   | 127 | 52,7                    | 13,8        |
| 33600                   | 145 | 46,3                    | 12,1        |
| 33600                   | 158 | 42,3                    | 11,1        |
| 33600                   | 173 | 38,6                    | 10,1        |
| 33600                   | 200 | 33,4                    | 8,73        |
| 33600                   | 222 | 30,1                    | 7,89        |
| 33600                   | 247 | 27,1                    | 7,08        |
| 33600                   | 277 | 24,2                    | 6,33        |
| 33600                   | 312 | 21,4                    | 5,60        |
| 33600                   | 354 | 18,9                    | 4,95        |
| 33600                   | 399 | 16,8                    | 4,38        |
| 32500                   | 440 | 14,7                    | 3,97        |

P4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 59300                   | 132 | 89,6                    | 13,3        |
| 59300                   | 143 | 82,6                    | 12,2        |
| 59300                   | 162 | 72,8                    | 10,8        |
| 59300                   | 177 | 66,7                    | 9,89        |
| 59300                   | 203 | 58,2                    | 8,63        |
| 59300                   | 223 | 52,9                    | 7,85        |
| 59300                   | 259 | 45,5                    | 6,74        |
| 59300                   | 289 | 40,8                    | 6,05        |
| 59300                   | 324 | 36,4                    | 5,40        |
| 59300                   | 367 | 32,2                    | 4,77        |
| 59300                   | 405 | 29,1                    | 4,32        |
| 59300                   | 460 | 25,7                    | 3,81        |

## 19.1 PC GEAR REDUCER - 1750 rpm

## P4C 396

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 68900                   | 103 | 133                     | 17,0                    |
| 68900                   | 118 | 116                     | 14,8                    |
| 68900                   | 129 | 106                     | 13,5                    |
| 68900                   | 142 | 96,7                    | 12,3                    |
| 68900                   | 164 | 83,7                    | 10,7                    |
| 68900                   | 182 | 75,6                    | 9,63                    |
| 68900                   | 202 | 67,9                    | 8,66                    |
| 68900                   | 226 | 60,6                    | 7,73                    |
| 68900                   | 256 | 53,7                    | 6,85                    |
| 68900                   | 287 | 47,9                    | 6,10                    |
| 68900                   | 320 | 42,9                    | 5,46                    |
| 68900                   | 361 | 38,0                    | 4,85                    |

## P4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 85900                   | 128 | 134                     | 13,7                    |
| 85900                   | 147 | 117                     | 11,9                    |
| 85900                   | 160 | 107                     | 10,9                    |
| 85900                   | 176 | 97,2                    | 9,95                    |
| 85900                   | 203 | 84,1                    | 8,61                    |
| 85900                   | 225 | 76,0                    | 7,77                    |
| 85900                   | 251 | 68,3                    | 6,98                    |
| 85900                   | 281 | 60,9                    | 6,24                    |
| 85900                   | 317 | 54,0                    | 5,52                    |
| 85900                   | 356 | 48,1                    | 4,92                    |
| 85900                   | 397 | 43,1                    | 4,41                    |
| 85900                   | 447 | 38,2                    | 3,91                    |

19.2 PC GEAR REDUCER - 1400 rpm

P1C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6400                    | 1,26 | 762                     | 1110                    |
| 6720                    | 1,38 | 729                     | 1020                    |
| 6880                    | 1,59 | 648                     | 882                     |
| 7040                    | 1,84 | 573                     | 761                     |
| 7520                    | 2,03 | 553                     | 688                     |
| 7680                    | 2,26 | 509                     | 620                     |
| 7680                    | 2,52 | 456                     | 556                     |
| 7680                    | 2,83 | 407                     | 495                     |
| 7680                    | 3,19 | 360                     | 439                     |
| 7600                    | 3,59 | 317                     | 390                     |
| 7680                    | 4,06 | 283                     | 345                     |
| 6160                    | 4,62 | 199                     | 303                     |
| 5760                    | 4,90 | 176                     | 286                     |
| 5520                    | 5,56 | 149                     | 252                     |

P1C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19800                   | 1,27 | 2330                    | 1100                    |
| 20100                   | 1,40 | 2150                    | 1000                    |
| 21700                   | 1,63 | 2000                    | 862                     |
| 22400                   | 1,80 | 1860                    | 778                     |
| 23000                   | 2,00 | 1720                    | 700                     |
| 23000                   | 2,23 | 1540                    | 628                     |
| 23000                   | 2,50 | 1370                    | 560                     |
| 21800                   | 2,74 | 1190                    | 511                     |
| 22500                   | 3,21 | 1050                    | 436                     |
| 22900                   | 3,59 | 953                     | 390                     |
| 23000                   | 4,05 | 848                     | 346                     |
| 19700                   | 4,38 | 672                     | 320                     |
| 18800                   | 4,96 | 567                     | 282                     |
| 16100                   | 5,68 | 423                     | 246                     |

P1C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 53900                   | 1,59 | 5080                    | 882                     |
| 56700                   | 1,84 | 4610                    | 761                     |
| 58300                   | 2,03 | 4290                    | 688                     |
| 60200                   | 2,26 | 3980                    | 620                     |
| 61600                   | 2,52 | 3660                    | 556                     |
| 61600                   | 2,93 | 3150                    | 478                     |
| 58500                   | 3,21 | 2730                    | 436                     |
| 59500                   | 3,59 | 2480                    | 390                     |
| 60600                   | 4,05 | 2240                    | 346                     |
| 49300                   | 4,62 | 1600                    | 303                     |
| 46600                   | 4,90 | 1420                    | 286                     |
| 44300                   | 5,56 | 1190                    | 252                     |

P1C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12200                   | 1,26 | 1440                    | 1110                    |
| 12300                   | 1,39 | 1330                    | 1010                    |
| 13000                   | 1,61 | 1210                    | 872                     |
| 13900                   | 1,77 | 1170                    | 789                     |
| 14200                   | 1,97 | 1080                    | 712                     |
| 14200                   | 2,31 | 923                     | 607                     |
| 14200                   | 2,58 | 825                     | 542                     |
| 13700                   | 2,80 | 731                     | 500                     |
| 13900                   | 3,13 | 665                     | 447                     |
| 14200                   | 3,52 | 604                     | 397                     |
| 14200                   | 4,00 | 533                     | 350                     |
| 12600                   | 4,40 | 430                     | 318                     |
| 11000                   | 4,91 | 337                     | 285                     |
| 10500                   | 5,53 | 284                     | 253                     |

P1C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36800                   | 1,64 | 3360                    | 856                     |
| 38100                   | 1,81 | 3150                    | 775                     |
| 39300                   | 2,00 | 2940                    | 700                     |
| 40500                   | 2,22 | 2730                    | 630                     |
| 40500                   | 2,48 | 2440                    | 565                     |
| 40500                   | 2,78 | 2180                    | 503                     |
| 38500                   | 3,08 | 1870                    | 455                     |
| 40200                   | 3,48 | 1730                    | 403                     |
| 40500                   | 3,91 | 1550                    | 359                     |
| 36800                   | 4,42 | 1250                    | 317                     |
| 31000                   | 5,15 | 899                     | 272                     |
| 29200                   | 5,47 | 798                     | 256                     |

## 19.2 PC GEAR REDUCER - 1400 rpm

## P2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8560                    | 6,29 | 208                     | 223                     |
| 8960                    | 7,21 | 190                     | 194                     |
| 8960                    | 7,89 | 173                     | 177                     |
| 8960                    | 8,65 | 158                     | 162                     |
| 8400                    | 10,0 | 128                     | 140                     |
| 8480                    | 11,1 | 117                     | 126                     |
| 8960                    | 12,3 | 111                     | 114                     |
| 8960                    | 13,8 | 99,1                    | 101                     |
| 8960                    | 15,6 | 87,8                    | 89,9                    |
| 8400                    | 17,5 | 73,3                    | 80,0                    |
| 8960                    | 19,5 | 70,0                    | 71,7                    |
| 8720                    | 22,0 | 60,5                    | 63,6                    |

## P2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16200                   | 6,09 | 407                     | 230                     |
| 16200                   | 7,05 | 352                     | 199                     |
| 16200                   | 7,80 | 318                     | 180                     |
| 16200                   | 8,66 | 286                     | 162                     |
| 16200                   | 9,66 | 257                     | 145                     |
| 16200                   | 10,6 | 233                     | 131                     |
| 16200                   | 11,8 | 209                     | 119                     |
| 16200                   | 13,9 | 178                     | 100                     |
| 16200                   | 15,7 | 158                     | 89,1                    |
| 15200                   | 17,6 | 132                     | 79,6                    |
| 15200                   | 19,7 | 118                     | 70,9                    |
| 15800                   | 21,0 | 115                     | 66,7                    |

## P2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27000                   | 6,26 | 658                     | 224                     |
| 27000                   | 7,25 | 568                     | 193                     |
| 27000                   | 8,02 | 513                     | 175                     |
| 27000                   | 8,90 | 462                     | 157                     |
| 27000                   | 9,93 | 415                     | 141                     |
| 27000                   | 11,1 | 370                     | 126                     |
| 27000                   | 12,6 | 327                     | 111                     |
| 27000                   | 14,2 | 291                     | 98,9                    |
| 27000                   | 16,0 | 258                     | 87,7                    |
| 27000                   | 18,2 | 226                     | 76,9                    |
| 27000                   | 19,3 | 213                     | 72,5                    |
| 26500                   | 21,9 | 185                     | 63,9                    |

## P2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10800                   | 7,79 | 212                     | 180                     |
| 11500                   | 8,94 | 197                     | 157                     |
| 11500                   | 9,78 | 180                     | 143                     |
| 11500                   | 10,7 | 164                     | 131                     |
| 10800                   | 12,4 | 133                     | 113                     |
| 10800                   | 13,7 | 120                     | 102                     |
| 11500                   | 15,3 | 115                     | 91,6                    |
| 11500                   | 17,1 | 103                     | 81,8                    |
| 11500                   | 19,3 | 91,1                    | 72,5                    |
| 10800                   | 21,7 | 76,1                    | 64,6                    |
| 11400                   | 24,2 | 72,2                    | 57,8                    |
| 11100                   | 27,3 | 62,3                    | 51,3                    |

## P2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 20500                   | 7,68 | 407                     | 182                     |
| 20500                   | 8,89 | 352                     | 158                     |
| 20500                   | 9,83 | 318                     | 142                     |
| 20500                   | 10,9 | 286                     | 128                     |
| 20500                   | 12,2 | 257                     | 115                     |
| 20500                   | 13,4 | 233                     | 104                     |
| 20400                   | 14,9 | 209                     | 94,0                    |
| 20500                   | 17,6 | 178                     | 79,7                    |
| 20500                   | 19,8 | 158                     | 70,6                    |
| 19200                   | 22,2 | 132                     | 63,1                    |
| 19200                   | 24,9 | 118                     | 56,2                    |
| 20000                   | 26,5 | 115                     | 52,9                    |

## P2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33800                   | 7,85 | 657                     | 178                     |
| 33800                   | 9,09 | 567                     | 154                     |
| 33800                   | 10,1 | 513                     | 139                     |
| 33800                   | 11,2 | 462                     | 125                     |
| 33800                   | 12,5 | 414                     | 112                     |
| 33800                   | 14,0 | 369                     | 100                     |
| 33800                   | 15,8 | 327                     | 88,8                    |
| 33800                   | 17,7 | 291                     | 78,9                    |
| 33800                   | 20,0 | 258                     | 70,0                    |
| 33800                   | 22,8 | 226                     | 61,3                    |
| 33800                   | 24,2 | 213                     | 57,8                    |
| 33300                   | 27,5 | 185                     | 51,0                    |

## 19.2 PC GEAR REDUCER - 1400 rpm

## P2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 47400                   | 6,25 | 1160                    | 224                     |
| 47400                   | 6,90 | 1050                    | 203                     |
| 47400                   | 7,64 | 948                     | 183                     |
| 47400                   | 8,97 | 807                     | 156                     |
| 47400                   | 10,0 | 721                     | 139                     |
| 47400                   | 10,9 | 665                     | 129                     |
| 47400                   | 12,2 | 595                     | 115                     |
| 47400                   | 13,7 | 529                     | 102                     |
| 47400                   | 15,6 | 466                     | 90,0                    |
| 47400                   | 17,1 | 423                     | 81,8                    |
| 47400                   | 19,7 | 368                     | 71,1                    |
| 46600                   | 21,5 | 331                     | 65,1                    |

## P2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 68800                   | 7,10 | 1480                    | 197                     |
| 68800                   | 7,89 | 1330                    | 177                     |
| 68800                   | 8,80 | 1190                    | 159                     |
| 68800                   | 9,86 | 1070                    | 142                     |
| 68800                   | 10,8 | 972                     | 129                     |
| 68800                   | 12,7 | 830                     | 111                     |
| 68800                   | 14,2 | 742                     | 98,8                    |
| 68800                   | 16,0 | 658                     | 87,6                    |
| 68800                   | 17,3 | 608                     | 81,0                    |
| 68800                   | 19,5 | 538                     | 71,7                    |
| 68800                   | 66,4 | 158                     | 21,1                    |

## P2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 59000                   | 7,94 | 1140                    | 176                     |
| 59000                   | 8,77 | 1030                    | 160                     |
| 59000                   | 9,72 | 928                     | 144                     |
| 59000                   | 11,4 | 790                     | 123                     |
| 59000                   | 12,8 | 706                     | 110                     |
| 59000                   | 13,8 | 651                     | 101                     |
| 59000                   | 15,5 | 582                     | 90,5                    |
| 59000                   | 17,4 | 517                     | 80,4                    |
| 59000                   | 19,8 | 456                     | 70,8                    |
| 59000                   | 21,8 | 414                     | 64,4                    |
| 59000                   | 24,3 | 372                     | 57,7                    |
| 58000                   | 27,3 | 324                     | 51,2                    |

## P2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 85600                   | 7,94 | 1650                    | 176                     |
| 85600                   | 8,80 | 1490                    | 159                     |
| 85600                   | 9,78 | 1340                    | 143                     |
| 85600                   | 10,9 | 1200                    | 128                     |
| 85600                   | 12,2 | 1070                    | 115                     |
| 85600                   | 13,4 | 976                     | 104                     |
| 85600                   | 15,7 | 833                     | 89,3                    |
| 85600                   | 17,6 | 745                     | 79,7                    |
| 85600                   | 19,8 | 660                     | 70,7                    |
| 85600                   | 21,4 | 610                     | 65,4                    |
| 85600                   | 24,2 | 540                     | 57,9                    |

19.2 PC GEAR REDUCER - 1400 rpm

P3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9280                    | 25,0 | 57,9                    | 56,0        |
| 9280                    | 28,5 | 50,8                    | 49,1        |
| 9280                    | 31,2 | 46,4                    | 44,9        |
| 9280                    | 34,2 | 42,3                    | 41,0        |
| 9280                    | 39,5 | 36,6                    | 35,4        |
| 9280                    | 43,7 | 33,1                    | 32,0        |
| 9280                    | 48,7 | 29,7                    | 28,8        |
| 9280                    | 54,5 | 26,5                    | 25,7        |
| 9280                    | 61,5 | 23,5                    | 22,7        |
| 9280                    | 69,7 | 20,8                    | 20,1        |
| 9280                    | 78,7 | 18,4                    | 17,8        |
| 9280                    | 86,8 | 16,7                    | 16,1        |

P3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 17400                   | 25,5 | 106                     | 54,8        |
| 17400                   | 27,7 | 97,7                    | 50,5        |
| 17400                   | 31,4 | 86,1                    | 44,5        |
| 17400                   | 34,3 | 79,0                    | 40,8        |
| 17400                   | 39,3 | 68,9                    | 35,6        |
| 17400                   | 43,2 | 62,6                    | 32,4        |
| 17400                   | 50,3 | 53,8                    | 27,8        |
| 17400                   | 56,0 | 48,3                    | 25,0        |
| 17400                   | 62,9 | 43,1                    | 22,3        |
| 17400                   | 71,1 | 38,1                    | 19,7        |
| 17400                   | 78,6 | 34,5                    | 17,8        |
| 16000                   | 89,1 | 28,0                    | 15,7        |

P3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 28600                   | 25,4 | 175                     | 55,0        |
| 28600                   | 29,2 | 153                     | 48,0        |
| 28600                   | 31,9 | 140                     | 43,9        |
| 28600                   | 35,0 | 127                     | 40,0        |
| 28600                   | 40,5 | 110                     | 34,6        |
| 28600                   | 44,8 | 99,4                    | 31,2        |
| 28600                   | 49,9 | 89,3                    | 28,1        |
| 28600                   | 55,9 | 79,7                    | 25,1        |
| 28600                   | 63,0 | 70,6                    | 22,2        |
| 28600                   | 70,8 | 62,9                    | 19,8        |
| 28600                   | 79,0 | 56,3                    | 17,7        |
| 27600                   | 89,1 | 48,3                    | 15,7        |

P3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12400                   | 31,0 | 62,4                    | 45,2        |
| 12400                   | 35,3 | 54,8                    | 39,6        |
| 12400                   | 38,6 | 50,1                    | 36,2        |
| 12400                   | 42,4 | 45,7                    | 33,1        |
| 12400                   | 49,0 | 39,5                    | 28,6        |
| 12400                   | 54,2 | 35,7                    | 25,8        |
| 12400                   | 60,3 | 32,0                    | 23,2        |
| 12400                   | 67,6 | 28,6                    | 20,7        |
| 12400                   | 76,3 | 25,4                    | 18,4        |
| 12400                   | 86,4 | 22,4                    | 16,2        |
| 11600                   | 97,6 | 18,5                    | 14,3        |
| 12000                   | 108  | 17,4                    | 13,0        |

P3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 21800                   | 32,2 | 105                     | 43,5        |
| 21800                   | 34,9 | 97,1                    | 40,1        |
| 21800                   | 39,6 | 85,6                    | 35,3        |
| 21800                   | 43,2 | 78,5                    | 32,4        |
| 21800                   | 49,5 | 68,5                    | 28,3        |
| 21800                   | 54,5 | 62,3                    | 25,7        |
| 21800                   | 63,4 | 53,5                    | 22,1        |
| 21800                   | 70,7 | 48,0                    | 19,8        |
| 21800                   | 79,3 | 42,8                    | 17,7        |
| 21800                   | 89,7 | 37,8                    | 15,6        |
| 21800                   | 99,1 | 34,2                    | 14,1        |
| 20200                   | 112  | 28,0                    | 12,5        |

P3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 35000                   | 31,9 | 171                     | 43,9        |
| 35000                   | 36,6 | 149                     | 38,3        |
| 35000                   | 40,0 | 137                     | 35,0        |
| 35000                   | 43,9 | 124                     | 31,9        |
| 35000                   | 50,7 | 108                     | 27,6        |
| 35000                   | 56,2 | 97,3                    | 24,9        |
| 35000                   | 62,5 | 87,4                    | 22,4        |
| 35000                   | 70,0 | 78,0                    | 20,0        |
| 35000                   | 79,0 | 69,1                    | 17,7        |
| 35000                   | 88,7 | 61,6                    | 15,8        |
| 35000                   | 99,1 | 55,1                    | 14,1        |
| 34200                   | 112  | 47,8                    | 12,5        |

## 19.2 PC GEAR REDUCER - 1400 rpm

## P3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 50800                   | 24,7 | 321                     | 56,7                    |
| 50800                   | 28,6 | 277                     | 48,9                    |
| 50800                   | 31,6 | 250                     | 44,2                    |
| 50800                   | 35,1 | 225                     | 39,8                    |
| 50800                   | 39,2 | 202                     | 35,7                    |
| 50800                   | 43,2 | 183                     | 32,4                    |
| 50800                   | 47,9 | 165                     | 29,2                    |
| 50800                   | 56,6 | 140                     | 24,7                    |
| 50800                   | 63,8 | 124                     | 22,0                    |
| 50800                   | 71,4 | 111                     | 19,6                    |
| 50800                   | 80,1 | 98,9                    | 17,5                    |
| 50800                   | 85,1 | 93,0                    | 16,4                    |

## P3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70400                   | 22,0 | 499                     | 63,6                    |
| 70400                   | 25,4 | 433                     | 55,2                    |
| 70400                   | 29,4 | 374                     | 47,7                    |
| 70400                   | 32,5 | 338                     | 43,1                    |
| 70400                   | 36,1 | 304                     | 38,8                    |
| 70400                   | 40,3 | 273                     | 34,8                    |
| 70400                   | 45,1 | 243                     | 31,0                    |
| 70400                   | 51,0 | 215                     | 27,5                    |
| 70400                   | 57,4 | 191                     | 24,4                    |
| 70400                   | 64,7 | 170                     | 21,6                    |
| 70400                   | 73,8 | 149                     | 19,0                    |
| 70400                   | 78,3 | 140                     | 17,9                    |
| 70400                   | 88,8 | 124                     | 15,8                    |

## P3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 61800                   | 31,4 | 307                     | 44,6                    |
| 61800                   | 36,4 | 265                     | 38,5                    |
| 61800                   | 40,2 | 239                     | 34,8                    |
| 61800                   | 44,7 | 216                     | 31,3                    |
| 61800                   | 49,8 | 193                     | 28,1                    |
| 61800                   | 54,9 | 175                     | 25,5                    |
| 61800                   | 60,9 | 158                     | 23,0                    |
| 61800                   | 71,9 | 134                     | 19,5                    |
| 61800                   | 81,1 | 119                     | 17,3                    |
| 61800                   | 90,8 | 106                     | 15,4                    |
| 61800                   | 102  | 94,6                    | 13,7                    |
| 61800                   | 108  | 89,0                    | 12,9                    |

## P3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 87200                   | 27,3 | 498                     | 51,3                    |
| 87200                   | 31,4 | 432                     | 44,5                    |
| 87200                   | 36,4 | 374                     | 38,5                    |
| 87200                   | 40,3 | 338                     | 34,8                    |
| 87200                   | 44,7 | 304                     | 31,3                    |
| 87200                   | 49,9 | 273                     | 28,1                    |
| 87200                   | 56,0 | 243                     | 25,0                    |
| 87200                   | 63,2 | 215                     | 22,2                    |
| 87200                   | 71,1 | 191                     | 19,7                    |
| 87200                   | 80,2 | 170                     | 17,5                    |
| 87200                   | 91,5 | 149                     | 15,3                    |
| 87200                   | 97,0 | 140                     | 14,4                    |
| 87200                   | 110  | 124                     | 12,7                    |

## 19.2 PC GEAR REDUCER - 1400 rpm

## P4C 216

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 17400                   | 102 | 27,2                    | 13,8                    |
| 17400                   | 115 | 24,0                    | 12,1                    |
| 17400                   | 126 | 22,0                    | 11,1                    |
| 17400                   | 144 | 19,2                    | 9,72                    |
| 17400                   | 158 | 17,5                    | 8,85                    |
| 17400                   | 175 | 15,8                    | 8,02                    |
| 17400                   | 194 | 14,3                    | 7,23                    |
| 17400                   | 229 | 12,1                    | 6,12                    |
| 17400                   | 258 | 10,7                    | 5,43                    |
| 17400                   | 289 | 9,58                    | 4,85                    |
| 17400                   | 305 | 9,06                    | 4,58                    |
| 15700                   | 344 | 7,26                    | 4,07                    |

## P4C 266

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 28600                   | 101 | 45,0                    | 13,8                    |
| 28600                   | 115 | 39,5                    | 12,1                    |
| 28600                   | 126 | 36,1                    | 11,1                    |
| 28600                   | 138 | 32,9                    | 10,1                    |
| 28600                   | 160 | 28,5                    | 8,76                    |
| 28600                   | 177 | 25,7                    | 7,91                    |
| 28600                   | 197 | 23,1                    | 7,11                    |
| 28600                   | 221 | 20,6                    | 6,34                    |
| 28600                   | 249 | 18,3                    | 5,62                    |
| 28600                   | 282 | 16,1                    | 4,96                    |
| 28600                   | 319 | 14,3                    | 4,39                    |
| 28600                   | 351 | 13,0                    | 3,99                    |

## P4C 316

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 49300                   | 104 | 75,8                    | 13,5                    |
| 49300                   | 112 | 69,8                    | 12,4                    |
| 49300                   | 128 | 61,6                    | 11,0                    |
| 49300                   | 139 | 56,4                    | 10,1                    |
| 49300                   | 159 | 49,2                    | 8,78                    |
| 49300                   | 175 | 44,8                    | 7,98                    |
| 49300                   | 204 | 38,5                    | 6,86                    |
| 49300                   | 227 | 34,5                    | 6,16                    |
| 49300                   | 255 | 30,8                    | 5,49                    |
| 49300                   | 289 | 27,2                    | 4,85                    |
| 49300                   | 319 | 24,6                    | 4,39                    |
| 49300                   | 361 | 21,7                    | 3,87                    |

## P4C 246

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 21800                   | 128 | 27,1                    | 10,9                    |
| 21800                   | 145 | 23,9                    | 9,63                    |
| 21800                   | 159 | 21,9                    | 8,83                    |
| 21800                   | 182 | 19,1                    | 7,71                    |
| 21800                   | 200 | 17,4                    | 7,02                    |
| 21800                   | 220 | 15,7                    | 6,36                    |
| 21800                   | 244 | 14,2                    | 5,73                    |
| 21800                   | 288 | 12,0                    | 4,86                    |
| 21800                   | 325 | 10,7                    | 4,31                    |
| 21800                   | 364 | 9,53                    | 3,85                    |
| 21800                   | 385 | 9,01                    | 3,64                    |
| 20200                   | 434 | 7,43                    | 3,23                    |

## P4C 276

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 35400                   | 127 | 44,4                    | 11,0                    |
| 35400                   | 145 | 39,0                    | 9,69                    |
| 35400                   | 158 | 35,6                    | 8,86                    |
| 35400                   | 173 | 32,5                    | 8,07                    |
| 35400                   | 200 | 28,1                    | 6,98                    |
| 35400                   | 222 | 25,4                    | 6,31                    |
| 35400                   | 247 | 22,8                    | 5,67                    |
| 35400                   | 277 | 20,4                    | 5,06                    |
| 35400                   | 312 | 18,0                    | 4,48                    |
| 35400                   | 354 | 15,9                    | 3,96                    |
| 35400                   | 399 | 14,1                    | 3,51                    |
| 34200                   | 440 | 12,4                    | 3,18                    |

## P4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 62400                   | 132 | 75,5                    | 10,6                    |
| 62400                   | 143 | 69,5                    | 9,79                    |
| 62400                   | 162 | 61,3                    | 8,63                    |
| 62400                   | 177 | 56,2                    | 7,91                    |
| 62400                   | 203 | 49,0                    | 6,91                    |
| 62400                   | 223 | 44,6                    | 6,28                    |
| 62400                   | 259 | 38,3                    | 5,40                    |
| 62400                   | 289 | 34,4                    | 4,84                    |
| 62400                   | 324 | 30,7                    | 4,32                    |
| 62400                   | 367 | 27,1                    | 3,81                    |
| 62400                   | 405 | 24,5                    | 3,45                    |
| 62400                   | 460 | 21,6                    | 3,05                    |

## 19.2 PC GEAR REDUCER - 1400 rpm

## P4C 396

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 72600                   | 103 | 112                     | 13,6                    |
| 72600                   | 118 | 97,7                    | 11,8                    |
| 72600                   | 129 | 89,4                    | 10,8                    |
| 72600                   | 142 | 81,5                    | 9,86                    |
| 72600                   | 164 | 70,5                    | 8,53                    |
| 72600                   | 182 | 63,6                    | 7,71                    |
| 72600                   | 202 | 57,2                    | 6,92                    |
| 72600                   | 226 | 51,1                    | 6,18                    |
| 72600                   | 256 | 45,2                    | 5,48                    |
| 72600                   | 287 | 40,3                    | 4,88                    |
| 72600                   | 320 | 36,1                    | 4,37                    |
| 72600                   | 361 | 32,0                    | 3,88                    |

## P4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 90400                   | 128 | 113                     | 11,0                    |
| 90400                   | 147 | 98,2                    | 9,55                    |
| 90400                   | 160 | 89,8                    | 8,73                    |
| 90400                   | 176 | 81,9                    | 7,96                    |
| 90400                   | 203 | 70,8                    | 6,89                    |
| 90400                   | 225 | 64,0                    | 6,22                    |
| 90400                   | 251 | 57,5                    | 5,59                    |
| 90400                   | 281 | 51,3                    | 4,99                    |
| 90400                   | 317 | 45,5                    | 4,42                    |
| 90400                   | 356 | 40,5                    | 3,94                    |
| 90400                   | 397 | 36,3                    | 3,53                    |
| 90400                   | 447 | 32,2                    | 3,13                    |

## 19.3 PC GEAR REDUCER - 1140 rpm

## P1C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6530                    | 1,26 | 633                     | 908                     |
| 6850                    | 1,38 | 606                     | 827                     |
| 7020                    | 1,59 | 538                     | 718                     |
| 7180                    | 1,84 | 476                     | 620                     |
| 7670                    | 2,03 | 459                     | 560                     |
| 7830                    | 2,26 | 422                     | 505                     |
| 7830                    | 2,52 | 379                     | 452                     |
| 7830                    | 2,83 | 338                     | 403                     |
| 7830                    | 3,19 | 299                     | 357                     |
| 7750                    | 3,59 | 263                     | 317                     |
| 7830                    | 4,06 | 235                     | 281                     |
| 6280                    | 4,62 | 166                     | 247                     |
| 5880                    | 4,90 | 146                     | 233                     |
| 5630                    | 5,56 | 123                     | 205                     |

## P1C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 20200                   | 1,27 | 1930                    | 898                     |
| 20500                   | 1,40 | 1790                    | 814                     |
| 22100                   | 1,63 | 1660                    | 702                     |
| 22800                   | 1,80 | 1550                    | 633                     |
| 23400                   | 2,00 | 1430                    | 570                     |
| 23400                   | 2,23 | 1280                    | 511                     |
| 23400                   | 2,50 | 1140                    | 456                     |
| 22200                   | 2,74 | 986                     | 416                     |
| 22900                   | 3,21 | 871                     | 355                     |
| 23300                   | 3,59 | 792                     | 317                     |
| 23400                   | 4,05 | 704                     | 281                     |
| 20100                   | 4,38 | 558                     | 260                     |
| 19200                   | 4,96 | 471                     | 230                     |
| 16400                   | 5,68 | 351                     | 201                     |

## P1C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 55000                   | 1,59 | 4220                    | 718                     |
| 57900                   | 1,84 | 3830                    | 620                     |
| 59500                   | 2,03 | 3560                    | 560                     |
| 61400                   | 2,26 | 3310                    | 505                     |
| 62800                   | 2,52 | 3040                    | 452                     |
| 62800                   | 2,93 | 2620                    | 390                     |
| 59600                   | 3,21 | 2260                    | 355                     |
| 60700                   | 3,59 | 2060                    | 317                     |
| 61800                   | 4,05 | 1860                    | 281                     |
| 50300                   | 4,62 | 1330                    | 247                     |
| 47600                   | 4,90 | 1180                    | 233                     |
| 45200                   | 5,56 | 991                     | 205                     |

## P1C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12400                   | 1,26 | 1200                    | 903                     |
| 12600                   | 1,39 | 1100                    | 821                     |
| 13300                   | 1,61 | 1010                    | 710                     |
| 14200                   | 1,77 | 975                     | 643                     |
| 14500                   | 1,97 | 900                     | 580                     |
| 14500                   | 2,31 | 767                     | 494                     |
| 14500                   | 2,58 | 685                     | 441                     |
| 14000                   | 2,80 | 607                     | 407                     |
| 14200                   | 3,13 | 553                     | 364                     |
| 14500                   | 3,52 | 502                     | 323                     |
| 14500                   | 4,00 | 442                     | 285                     |
| 12900                   | 4,40 | 357                     | 259                     |
| 11300                   | 4,91 | 280                     | 232                     |
| 10700                   | 5,53 | 236                     | 206                     |

## P1C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37500                   | 1,64 | 2790                    | 697                     |
| 38800                   | 1,81 | 2620                    | 631                     |
| 40100                   | 2,00 | 2440                    | 570                     |
| 41300                   | 2,22 | 2260                    | 513                     |
| 41300                   | 2,48 | 2030                    | 460                     |
| 41300                   | 2,78 | 1810                    | 410                     |
| 39200                   | 3,08 | 1550                    | 370                     |
| 41000                   | 3,48 | 1430                    | 328                     |
| 41300                   | 3,91 | 1290                    | 292                     |
| 37500                   | 4,42 | 1030                    | 258                     |
| 31600                   | 5,15 | 747                     | 221                     |
| 29800                   | 5,47 | 663                     | 208                     |

P2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 8730                    | 6,29 | 173                     | 181         |
| 9140                    | 7,21 | 158                     | 158         |
| 9140                    | 7,89 | 144                     | 145         |
| 9140                    | 8,65 | 131                     | 132         |
| 8570                    | 10,0 | 107                     | 114         |
| 8650                    | 11,1 | 97,1                    | 103         |
| 9140                    | 12,3 | 92,2                    | 92,5        |
| 9140                    | 13,8 | 82,3                    | 82,6        |
| 9140                    | 15,6 | 72,9                    | 73,2        |
| 8570                    | 17,5 | 60,9                    | 65,2        |
| 9140                    | 19,5 | 58,2                    | 58,4        |
| 8890                    | 22,0 | 50,3                    | 51,8        |

P2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 16600                   | 6,09 | 338                     | 187         |
| 16600                   | 7,05 | 292                     | 162         |
| 16600                   | 7,80 | 264                     | 146         |
| 16600                   | 8,66 | 238                     | 132         |
| 16600                   | 9,66 | 213                     | 118         |
| 16600                   | 10,6 | 193                     | 107         |
| 16500                   | 11,8 | 174                     | 96,6        |
| 16600                   | 13,9 | 148                     | 81,8        |
| 16600                   | 15,7 | 131                     | 72,5        |
| 15500                   | 17,6 | 110                     | 64,8        |
| 15500                   | 19,7 | 97,7                    | 57,7        |
| 16200                   | 21,0 | 95,7                    | 54,3        |

P2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 27500                   | 6,26 | 546                     | 182         |
| 27500                   | 7,25 | 472                     | 157         |
| 27500                   | 8,02 | 426                     | 142         |
| 27500                   | 8,90 | 384                     | 128         |
| 27500                   | 9,93 | 344                     | 115         |
| 27500                   | 11,1 | 307                     | 102         |
| 27500                   | 12,6 | 272                     | 90,7        |
| 27500                   | 14,2 | 242                     | 80,6        |
| 27500                   | 16,0 | 214                     | 71,4        |
| 27500                   | 18,2 | 188                     | 62,6        |
| 27500                   | 19,3 | 177                     | 59,0        |
| 27000                   | 21,9 | 153                     | 52,1        |

P2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11000                   | 7,79 | 176                     | 146         |
| 11800                   | 8,94 | 163                     | 128         |
| 11800                   | 9,78 | 149                     | 117         |
| 11800                   | 10,7 | 136                     | 106         |
| 11000                   | 12,4 | 110                     | 92,0        |
| 11000                   | 13,7 | 99,8                    | 83,1        |
| 11800                   | 15,3 | 95,6                    | 74,6        |
| 11800                   | 17,1 | 85,4                    | 66,6        |
| 11800                   | 19,3 | 75,7                    | 59,0        |
| 11000                   | 21,7 | 63,2                    | 52,6        |
| 11700                   | 24,2 | 59,9                    | 47,1        |
| 11300                   | 27,3 | 51,7                    | 41,8        |

P2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20900                   | 7,68 | 338                     | 149         |
| 20900                   | 8,89 | 292                     | 128         |
| 20900                   | 9,83 | 264                     | 116         |
| 20900                   | 10,9 | 238                     | 104         |
| 20900                   | 12,2 | 213                     | 93,6        |
| 20900                   | 13,4 | 193                     | 84,9        |
| 20800                   | 14,9 | 174                     | 76,6        |
| 20900                   | 17,6 | 148                     | 64,9        |
| 20900                   | 19,8 | 131                     | 57,5        |
| 19600                   | 22,2 | 110                     | 51,4        |
| 19600                   | 24,9 | 97,8                    | 45,8        |
| 20400                   | 26,5 | 95,9                    | 43,1        |

P2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 34400                   | 7,85 | 546                     | 145         |
| 34400                   | 9,09 | 471                     | 125         |
| 34400                   | 10,1 | 426                     | 113         |
| 34400                   | 11,2 | 384                     | 102         |
| 34400                   | 12,5 | 344                     | 91,6        |
| 34400                   | 14,0 | 307                     | 81,6        |
| 34400                   | 15,8 | 272                     | 72,3        |
| 34400                   | 17,7 | 241                     | 64,3        |
| 34400                   | 20,0 | 214                     | 57,0        |
| 34400                   | 22,8 | 188                     | 49,9        |
| 34400                   | 24,2 | 177                     | 47,1        |
| 33900                   | 27,5 | 154                     | 41,5        |

## 19.3 PC GEAR REDUCER - 1140 rpm

## P2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 48400                   | 6,25 | 963                     | 183                     |
| 48400                   | 6,90 | 872                     | 165                     |
| 48400                   | 7,64 | 787                     | 149                     |
| 48400                   | 8,97 | 670                     | 127                     |
| 48400                   | 10,0 | 599                     | 113                     |
| 48400                   | 10,9 | 553                     | 105                     |
| 48400                   | 12,2 | 494                     | 93,6                    |
| 48400                   | 13,7 | 439                     | 83,2                    |
| 48400                   | 15,6 | 387                     | 73,3                    |
| 48400                   | 17,1 | 352                     | 66,6                    |
| 48400                   | 19,7 | 305                     | 57,9                    |
| 47600                   | 21,5 | 275                     | 53,0                    |

## P2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70200                   | 7,10 | 1230                    | 161                     |
| 70200                   | 7,89 | 1110                    | 145                     |
| 70200                   | 8,80 | 992                     | 130                     |
| 70200                   | 9,86 | 885                     | 116                     |
| 70200                   | 10,8 | 807                     | 105                     |
| 70200                   | 12,7 | 690                     | 90,1                    |
| 70200                   | 14,2 | 616                     | 80,5                    |
| 70200                   | 16,0 | 546                     | 71,4                    |
| 70200                   | 17,3 | 505                     | 66,0                    |
| 70200                   | 19,5 | 447                     | 58,4                    |
| 70200                   | 66,4 | 131                     | 17,2                    |

## P2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 60200                   | 7,94 | 943                     | 144                     |
| 60200                   | 8,77 | 854                     | 130                     |
| 60200                   | 9,72 | 771                     | 117                     |
| 60200                   | 11,4 | 656                     | 99,9                    |
| 60200                   | 12,8 | 586                     | 89,3                    |
| 60200                   | 13,8 | 541                     | 82,3                    |
| 60200                   | 15,5 | 484                     | 73,7                    |
| 60200                   | 17,4 | 430                     | 65,4                    |
| 60200                   | 19,8 | 379                     | 57,6                    |
| 60200                   | 21,8 | 344                     | 52,4                    |
| 60200                   | 24,3 | 309                     | 47,0                    |
| 59200                   | 27,3 | 269                     | 41,7                    |

## P2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 87300                   | 7,94 | 1370                    | 144                     |
| 87300                   | 8,80 | 1230                    | 130                     |
| 87300                   | 9,78 | 1110                    | 117                     |
| 87300                   | 10,9 | 995                     | 105                     |
| 87300                   | 12,2 | 888                     | 93,3                    |
| 87300                   | 13,4 | 810                     | 85,1                    |
| 87300                   | 15,7 | 692                     | 72,7                    |
| 87300                   | 17,6 | 618                     | 64,9                    |
| 87300                   | 19,8 | 548                     | 57,6                    |
| 87300                   | 21,4 | 507                     | 53,2                    |
| 87300                   | 24,2 | 449                     | 47,1                    |

## 19.3 PC GEAR REDUCER - 1140 rpm

## P3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9470                    | 25,0 | 48,1                    | 45,6                    |
| 9470                    | 28,5 | 42,2                    | 40,0                    |
| 9470                    | 31,2 | 38,6                    | 36,6                    |
| 9470                    | 34,2 | 35,2                    | 33,4                    |
| 9470                    | 39,5 | 30,4                    | 28,9                    |
| 9470                    | 43,7 | 27,5                    | 26,1                    |
| 9470                    | 48,7 | 24,7                    | 23,4                    |
| 9470                    | 54,5 | 22,0                    | 20,9                    |
| 9470                    | 61,5 | 19,5                    | 18,5                    |
| 9470                    | 69,7 | 17,2                    | 16,3                    |
| 9470                    | 78,7 | 15,3                    | 14,5                    |
| 9470                    | 86,8 | 13,8                    | 13,1                    |

## P3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17700                   | 25,5 | 88,0                    | 44,6                    |
| 17700                   | 27,7 | 81,1                    | 41,1                    |
| 17700                   | 31,4 | 71,5                    | 36,3                    |
| 17700                   | 34,3 | 65,6                    | 33,2                    |
| 17700                   | 39,3 | 57,2                    | 29,0                    |
| 17700                   | 43,2 | 52,0                    | 26,4                    |
| 17700                   | 50,3 | 44,7                    | 22,7                    |
| 17700                   | 56,0 | 40,1                    | 20,3                    |
| 17700                   | 62,9 | 35,8                    | 18,1                    |
| 17700                   | 71,1 | 31,6                    | 16,0                    |
| 17700                   | 78,6 | 28,6                    | 14,5                    |
| 16300                   | 89,1 | 23,3                    | 12,8                    |

## P3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29100                   | 25,4 | 145                     | 44,8                    |
| 29100                   | 29,2 | 127                     | 39,1                    |
| 29100                   | 31,9 | 116                     | 35,7                    |
| 29100                   | 35,0 | 106                     | 32,6                    |
| 29100                   | 40,5 | 91,4                    | 28,2                    |
| 29100                   | 44,8 | 82,5                    | 25,4                    |
| 29100                   | 49,9 | 74,2                    | 22,9                    |
| 29100                   | 55,9 | 66,2                    | 20,4                    |
| 29100                   | 63,0 | 58,7                    | 18,1                    |
| 29100                   | 70,8 | 52,3                    | 16,1                    |
| 29100                   | 79,0 | 46,8                    | 14,4                    |
| 28200                   | 89,1 | 40,1                    | 12,8                    |

## P3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12600                   | 31,0 | 51,8                    | 36,8                    |
| 12600                   | 35,3 | 45,5                    | 32,3                    |
| 12600                   | 38,6 | 41,6                    | 29,5                    |
| 12600                   | 42,4 | 37,9                    | 26,9                    |
| 12600                   | 49,0 | 32,8                    | 23,3                    |
| 12600                   | 54,2 | 29,6                    | 21,0                    |
| 12600                   | 60,3 | 26,6                    | 18,9                    |
| 12600                   | 67,6 | 23,8                    | 16,9                    |
| 12600                   | 76,3 | 21,1                    | 14,9                    |
| 12600                   | 86,4 | 18,6                    | 13,2                    |
| 11800                   | 97,6 | 15,4                    | 11,7                    |
| 12200                   | 108  | 14,4                    | 10,6                    |

## P3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 22200                   | 32,2 | 87,5                    | 35,4                    |
| 22200                   | 34,9 | 80,7                    | 32,6                    |
| 22200                   | 39,6 | 71,1                    | 28,8                    |
| 22200                   | 43,2 | 65,2                    | 26,4                    |
| 22200                   | 49,5 | 56,9                    | 23,0                    |
| 22200                   | 54,5 | 51,7                    | 20,9                    |
| 22200                   | 63,4 | 44,4                    | 18,0                    |
| 22200                   | 70,7 | 39,9                    | 16,1                    |
| 22200                   | 79,3 | 35,6                    | 14,4                    |
| 22200                   | 89,7 | 31,4                    | 12,7                    |
| 22200                   | 99,1 | 28,4                    | 11,5                    |
| 20600                   | 112  | 23,3                    | 10,2                    |

## P3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35700                   | 31,9 | 142                     | 35,7                    |
| 35700                   | 36,6 | 124                     | 31,2                    |
| 35700                   | 40,0 | 113                     | 28,5                    |
| 35700                   | 43,9 | 103                     | 26,0                    |
| 35700                   | 50,7 | 89,4                    | 22,5                    |
| 35700                   | 56,2 | 80,8                    | 20,3                    |
| 35700                   | 62,5 | 72,6                    | 18,2                    |
| 35700                   | 70,0 | 64,8                    | 16,3                    |
| 35700                   | 79,0 | 57,4                    | 14,4                    |
| 35700                   | 88,7 | 51,1                    | 12,8                    |
| 35700                   | 99,1 | 45,8                    | 11,5                    |
| 34900                   | 112  | 39,7                    | 10,2                    |

## 19.3 PC GEAR REDUCER - 1140 rpm

## P3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 51800                   | 24,7 | 266                     | 46,1                    |
| 51800                   | 28,6 | 230                     | 39,9                    |
| 51800                   | 31,6 | 208                     | 36,0                    |
| 51800                   | 35,1 | 187                     | 32,4                    |
| 51800                   | 39,2 | 168                     | 29,1                    |
| 51800                   | 43,2 | 152                     | 26,4                    |
| 51800                   | 47,9 | 137                     | 23,8                    |
| 51800                   | 56,6 | 116                     | 20,2                    |
| 51800                   | 63,8 | 103                     | 17,9                    |
| 51800                   | 71,4 | 92,1                    | 16,0                    |
| 51800                   | 80,1 | 82,1                    | 14,2                    |
| 51800                   | 85,1 | 77,3                    | 13,4                    |

## P3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 71800                   | 22,0 | 414                     | 51,8                    |
| 71800                   | 25,4 | 359                     | 44,9                    |
| 71800                   | 29,4 | 310                     | 38,8                    |
| 71800                   | 32,5 | 281                     | 35,1                    |
| 71800                   | 36,1 | 253                     | 31,6                    |
| 71800                   | 40,3 | 227                     | 28,3                    |
| 71800                   | 45,1 | 202                     | 25,3                    |
| 71800                   | 51,0 | 179                     | 22,4                    |
| 71800                   | 57,4 | 159                     | 19,9                    |
| 71800                   | 64,7 | 141                     | 17,6                    |
| 71800                   | 73,8 | 124                     | 15,4                    |
| 71800                   | 78,3 | 116                     | 14,6                    |
| 71800                   | 88,8 | 103                     | 12,8                    |

## P3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 63000                   | 31,4 | 255                     | 36,3                    |
| 63000                   | 36,4 | 220                     | 31,3                    |
| 63000                   | 40,2 | 199                     | 28,3                    |
| 63000                   | 44,7 | 179                     | 25,5                    |
| 63000                   | 49,8 | 161                     | 22,9                    |
| 63000                   | 54,9 | 146                     | 20,8                    |
| 63000                   | 60,9 | 131                     | 18,7                    |
| 63000                   | 71,9 | 111                     | 15,9                    |
| 63000                   | 81,1 | 98,7                    | 14,1                    |
| 63000                   | 90,8 | 88,1                    | 12,6                    |
| 63000                   | 102  | 78,5                    | 11,2                    |
| 63000                   | 108  | 73,9                    | 10,5                    |

## P3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 88900                   | 27,3 | 414                     | 41,8                    |
| 88900                   | 31,4 | 359                     | 36,3                    |
| 88900                   | 36,4 | 310                     | 31,3                    |
| 88900                   | 40,3 | 280                     | 28,3                    |
| 88900                   | 44,7 | 253                     | 25,5                    |
| 88900                   | 49,9 | 226                     | 22,8                    |
| 88900                   | 56,0 | 202                     | 20,4                    |
| 88900                   | 63,2 | 179                     | 18,0                    |
| 88900                   | 71,1 | 159                     | 16,0                    |
| 88900                   | 80,2 | 141                     | 14,2                    |
| 88900                   | 91,5 | 124                     | 12,5                    |
| 88900                   | 97,0 | 116                     | 11,8                    |
| 88900                   | 110  | 103                     | 10,4                    |

P4C 216

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 17700                   | 102 | 22,6                    | 11,2        |
| 17700                   | 115 | 19,9                    | 9,89        |
| 17700                   | 126 | 18,3                    | 9,07        |
| 17700                   | 144 | 16,0                    | 7,92        |
| 17700                   | 158 | 14,5                    | 7,20        |
| 17700                   | 175 | 13,2                    | 6,53        |
| 17700                   | 194 | 11,9                    | 5,89        |
| 17700                   | 229 | 10,1                    | 4,99        |
| 17700                   | 258 | 8,91                    | 4,42        |
| 17700                   | 289 | 7,96                    | 3,95        |
| 17700                   | 305 | 7,52                    | 3,73        |
| 16000                   | 344 | 6,03                    | 3,31        |

P4C 266

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 29100                   | 101 | 37,3                    | 11,3        |
| 29100                   | 115 | 32,8                    | 9,89        |
| 29100                   | 126 | 30,0                    | 9,04        |
| 29100                   | 138 | 27,3                    | 8,24        |
| 29100                   | 160 | 23,6                    | 7,13        |
| 29100                   | 177 | 21,4                    | 6,44        |
| 29100                   | 197 | 19,2                    | 5,79        |
| 29100                   | 221 | 17,1                    | 5,17        |
| 29100                   | 249 | 15,2                    | 4,58        |
| 29100                   | 282 | 13,4                    | 4,04        |
| 29100                   | 319 | 11,9                    | 3,58        |
| 29100                   | 351 | 10,8                    | 3,25        |

P4C 316

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 50300                   | 104 | 62,9                    | 11,0        |
| 50300                   | 112 | 58,0                    | 10,1        |
| 50300                   | 128 | 51,1                    | 8,94        |
| 50300                   | 139 | 46,9                    | 8,19        |
| 50300                   | 159 | 40,9                    | 7,15        |
| 50300                   | 175 | 37,2                    | 6,50        |
| 50300                   | 204 | 32,0                    | 5,59        |
| 50300                   | 227 | 28,7                    | 5,01        |
| 50300                   | 255 | 25,6                    | 4,47        |
| 50300                   | 289 | 22,6                    | 3,95        |
| 50300                   | 319 | 20,5                    | 3,57        |
| 50300                   | 361 | 18,0                    | 3,15        |

P4C 246

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 22200                   | 128 | 22,5                    | 8,90        |
| 22200                   | 145 | 19,8                    | 7,84        |
| 22200                   | 159 | 18,2                    | 7,19        |
| 22200                   | 182 | 15,9                    | 6,28        |
| 22200                   | 200 | 14,4                    | 5,71        |
| 22200                   | 220 | 13,1                    | 5,18        |
| 22200                   | 244 | 11,8                    | 4,67        |
| 22200                   | 288 | 9,99                    | 3,96        |
| 22200                   | 325 | 8,86                    | 3,51        |
| 22200                   | 364 | 7,91                    | 3,13        |
| 22200                   | 385 | 7,48                    | 2,96        |
| 20600                   | 434 | 6,17                    | 2,63        |

P4C 276

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 36100                   | 127 | 36,9                    | 8,98        |
| 36100                   | 145 | 32,4                    | 7,89        |
| 36100                   | 158 | 29,6                    | 7,21        |
| 36100                   | 173 | 27,0                    | 6,57        |
| 36100                   | 200 | 23,3                    | 5,69        |
| 36100                   | 222 | 21,1                    | 5,14        |
| 36100                   | 247 | 18,9                    | 4,62        |
| 36100                   | 277 | 16,9                    | 4,12        |
| 36100                   | 312 | 15,0                    | 3,65        |
| 36100                   | 354 | 13,2                    | 3,22        |
| 36100                   | 399 | 11,7                    | 2,85        |
| 34900                   | 440 | 10,3                    | 2,59        |

P4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 63600                   | 132 | 62,7                    | 8,65        |
| 63600                   | 143 | 57,8                    | 7,97        |
| 63600                   | 162 | 50,9                    | 7,03        |
| 63600                   | 177 | 46,7                    | 6,44        |
| 63600                   | 203 | 40,7                    | 5,62        |
| 63600                   | 223 | 37,0                    | 5,11        |
| 63600                   | 259 | 31,8                    | 4,39        |
| 63600                   | 289 | 28,6                    | 3,94        |
| 63600                   | 324 | 25,5                    | 3,51        |
| 63600                   | 367 | 22,5                    | 3,11        |
| 63600                   | 405 | 20,4                    | 2,81        |
| 63600                   | 460 | 18,0                    | 2,48        |

## 19.3 PC GEAR REDUCER - 1140 rpm

## P4C 396

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 74000                   | 103 | 93,1                    | 11,1                    |
| 74000                   | 118 | 81,2                    | 9,64                    |
| 74000                   | 129 | 74,2                    | 8,81                    |
| 74000                   | 142 | 67,7                    | 8,03                    |
| 74000                   | 164 | 58,5                    | 6,95                    |
| 74000                   | 182 | 52,9                    | 6,28                    |
| 74000                   | 202 | 47,5                    | 5,64                    |
| 74000                   | 226 | 42,4                    | 5,03                    |
| 74000                   | 256 | 37,6                    | 4,46                    |
| 74000                   | 287 | 33,5                    | 3,97                    |
| 74000                   | 320 | 30,0                    | 3,56                    |
| 74000                   | 361 | 26,6                    | 3,16                    |

## P4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 92200                   | 128 | 93,6                    | 8,92                    |
| 92200                   | 147 | 81,6                    | 7,77                    |
| 92200                   | 160 | 74,6                    | 7,11                    |
| 92200                   | 176 | 68,0                    | 6,48                    |
| 92200                   | 203 | 58,8                    | 5,61                    |
| 92200                   | 225 | 53,1                    | 5,06                    |
| 92200                   | 251 | 47,7                    | 4,55                    |
| 92200                   | 281 | 42,6                    | 4,06                    |
| 92200                   | 317 | 37,8                    | 3,60                    |
| 92200                   | 356 | 33,6                    | 3,21                    |
| 92200                   | 397 | 30,1                    | 2,87                    |
| 92200                   | 447 | 26,7                    | 2,55                    |

19.4 PC GEAR REDUCER - 900 rpm

P1C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 6660                    | 1,26 | 510                     | 717         |
| 6990                    | 1,38 | 488                     | 653         |
| 7160                    | 1,59 | 433                     | 567         |
| 7320                    | 1,84 | 383                     | 489         |
| 7820                    | 2,03 | 370                     | 442         |
| 7990                    | 2,26 | 340                     | 398         |
| 7990                    | 2,52 | 305                     | 357         |
| 7990                    | 2,83 | 272                     | 318         |
| 7990                    | 3,19 | 241                     | 282         |
| 7900                    | 3,59 | 212                     | 251         |
| 7990                    | 4,06 | 189                     | 222         |
| 6410                    | 4,62 | 133                     | 195         |
| 5990                    | 4,90 | 118                     | 184         |
| 5740                    | 5,56 | 99,4                    | 162         |

P1C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20600                   | 1,27 | 1560                    | 709         |
| 20900                   | 1,40 | 1440                    | 643         |
| 22500                   | 1,63 | 1330                    | 554         |
| 23300                   | 1,80 | 1240                    | 500         |
| 23900                   | 2,00 | 1150                    | 450         |
| 23900                   | 2,23 | 1030                    | 403         |
| 23900                   | 2,50 | 918                     | 360         |
| 22600                   | 2,74 | 794                     | 328         |
| 23400                   | 3,21 | 701                     | 281         |
| 23800                   | 3,59 | 637                     | 251         |
| 23900                   | 4,05 | 567                     | 222         |
| 20500                   | 4,38 | 449                     | 205         |
| 19600                   | 4,96 | 379                     | 182         |
| 16700                   | 5,68 | 283                     | 158         |

P1C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 56100                   | 1,59 | 3400                    | 567         |
| 59000                   | 1,84 | 3080                    | 489         |
| 60700                   | 2,03 | 2870                    | 442         |
| 62600                   | 2,26 | 2660                    | 398         |
| 64100                   | 2,52 | 2440                    | 357         |
| 64100                   | 2,93 | 2110                    | 308         |
| 60800                   | 3,21 | 1820                    | 281         |
| 61900                   | 3,59 | 1660                    | 251         |
| 63000                   | 4,05 | 1500                    | 222         |
| 51300                   | 4,62 | 1070                    | 195         |
| 48500                   | 4,90 | 952                     | 184         |
| 46100                   | 5,56 | 798                     | 162         |

P1C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12600                   | 1,26 | 963                     | 713         |
| 12800                   | 1,39 | 887                     | 648         |
| 13600                   | 1,61 | 812                     | 560         |
| 14500                   | 1,77 | 785                     | 507         |
| 14800                   | 1,97 | 724                     | 458         |
| 14800                   | 2,31 | 617                     | 390         |
| 14800                   | 2,58 | 551                     | 348         |
| 14200                   | 2,80 | 489                     | 321         |
| 14500                   | 3,13 | 445                     | 288         |
| 14800                   | 3,52 | 404                     | 255         |
| 14800                   | 4,00 | 356                     | 225         |
| 13100                   | 4,40 | 287                     | 205         |
| 11500                   | 4,91 | 225                     | 183         |
| 10900                   | 5,53 | 190                     | 163         |

P1C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 38300                   | 1,64 | 2250                    | 550         |
| 39600                   | 1,81 | 2110                    | 498         |
| 40900                   | 2,00 | 1960                    | 450         |
| 42100                   | 2,22 | 1820                    | 405         |
| 42100                   | 2,48 | 1630                    | 363         |
| 42100                   | 2,78 | 1450                    | 323         |
| 40000                   | 3,08 | 1250                    | 292         |
| 41800                   | 3,48 | 1150                    | 259         |
| 42100                   | 3,91 | 1040                    | 230         |
| 38300                   | 4,42 | 832                     | 204         |
| 32200                   | 5,15 | 601                     | 175         |
| 30400                   | 5,47 | 533                     | 164         |

## 19.4 PC GEAR REDUCER - 900 rpm

## P2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8900                    | 6,29 | 139                     | 143                     |
| 9320                    | 7,21 | 127                     | 125                     |
| 9320                    | 7,89 | 116                     | 114                     |
| 9320                    | 8,65 | 106                     | 104                     |
| 8740                    | 10,0 | 85,7                    | 90,0                    |
| 8820                    | 11,1 | 78,2                    | 81,3                    |
| 9320                    | 12,3 | 74,2                    | 73,0                    |
| 9320                    | 13,8 | 66,3                    | 65,2                    |
| 9320                    | 15,6 | 58,7                    | 57,8                    |
| 8740                    | 17,5 | 49,0                    | 51,4                    |
| 9320                    | 19,5 | 46,8                    | 46,1                    |
| 9070                    | 22,0 | 40,5                    | 40,9                    |

## P2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16900                   | 6,09 | 272                     | 148                     |
| 16900                   | 7,05 | 235                     | 128                     |
| 16900                   | 7,80 | 213                     | 115                     |
| 16900                   | 8,66 | 191                     | 104                     |
| 16900                   | 9,66 | 172                     | 93,2                    |
| 16900                   | 10,6 | 156                     | 84,5                    |
| 16800                   | 11,8 | 140                     | 76,2                    |
| 16900                   | 13,9 | 119                     | 64,6                    |
| 16900                   | 15,7 | 105                     | 57,3                    |
| 15800                   | 17,6 | 88,2                    | 51,1                    |
| 15800                   | 19,7 | 78,6                    | 45,6                    |
| 16500                   | 21,0 | 77,1                    | 42,9                    |

## P2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 28000                   | 6,26 | 440                     | 144                     |
| 28000                   | 7,25 | 380                     | 124                     |
| 28000                   | 8,02 | 343                     | 112                     |
| 28000                   | 8,90 | 309                     | 101                     |
| 28000                   | 9,93 | 277                     | 90,6                    |
| 28000                   | 11,1 | 247                     | 80,8                    |
| 28000                   | 12,6 | 219                     | 71,6                    |
| 28000                   | 14,2 | 194                     | 63,6                    |
| 28000                   | 16,0 | 172                     | 56,4                    |
| 28000                   | 18,2 | 151                     | 49,4                    |
| 28000                   | 19,3 | 143                     | 46,6                    |
| 27500                   | 21,9 | 123                     | 41,1                    |

## P2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 11200                   | 7,79 | 142                     | 116                     |
| 12000                   | 8,94 | 132                     | 101                     |
| 12000                   | 9,78 | 120                     | 92,0                    |
| 12000                   | 10,7 | 110                     | 83,9                    |
| 11200                   | 12,4 | 88,9                    | 72,6                    |
| 11200                   | 13,7 | 80,3                    | 65,6                    |
| 12000                   | 15,3 | 77,0                    | 58,9                    |
| 12000                   | 17,1 | 68,7                    | 52,6                    |
| 12000                   | 19,3 | 60,9                    | 46,6                    |
| 11200                   | 21,7 | 50,9                    | 41,5                    |
| 11900                   | 24,2 | 48,2                    | 37,2                    |
| 11600                   | 27,3 | 41,6                    | 33,0                    |

## P2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 21300                   | 7,68 | 272                     | 117                     |
| 21300                   | 8,89 | 235                     | 101                     |
| 21300                   | 9,83 | 213                     | 91,5                    |
| 21300                   | 10,9 | 191                     | 82,4                    |
| 21300                   | 12,2 | 172                     | 73,9                    |
| 21300                   | 13,4 | 156                     | 67,0                    |
| 21200                   | 14,9 | 140                     | 60,5                    |
| 21300                   | 17,6 | 119                     | 51,2                    |
| 21300                   | 19,8 | 106                     | 45,4                    |
| 20000                   | 22,2 | 88,3                    | 40,6                    |
| 20000                   | 24,9 | 78,7                    | 36,2                    |
| 20800                   | 26,5 | 77,2                    | 34,0                    |

## P2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35100                   | 7,85 | 439                     | 115                     |
| 35100                   | 9,09 | 379                     | 99,1                    |
| 35100                   | 10,1 | 343                     | 89,5                    |
| 35100                   | 11,2 | 309                     | 80,6                    |
| 35100                   | 12,5 | 277                     | 72,3                    |
| 35100                   | 14,0 | 247                     | 64,5                    |
| 35100                   | 15,8 | 219                     | 57,1                    |
| 35100                   | 17,7 | 194                     | 50,7                    |
| 35100                   | 20,0 | 172                     | 45,0                    |
| 35100                   | 22,8 | 151                     | 39,4                    |
| 35100                   | 24,2 | 142                     | 37,2                    |
| 34600                   | 27,5 | 124                     | 32,8                    |

19.4 PC GEAR REDUCER - 900 rpm

P2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49300                   | 6,25 | 775                     | 144                     |
| 49300                   | 6,90 | 702                     | 130                     |
| 49300                   | 7,64 | 634                     | 118                     |
| 49300                   | 8,97 | 540                     | 100                     |
| 49300                   | 10,0 | 482                     | 89,6                    |
| 49300                   | 10,9 | 445                     | 82,7                    |
| 49300                   | 12,2 | 398                     | 73,9                    |
| 49300                   | 13,7 | 353                     | 65,7                    |
| 49300                   | 15,6 | 311                     | 57,9                    |
| 49300                   | 17,1 | 283                     | 52,6                    |
| 49300                   | 19,7 | 246                     | 45,7                    |
| 48500                   | 21,5 | 222                     | 41,9                    |

P2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 71600                   | 7,10 | 989                     | 127                     |
| 71600                   | 7,89 | 890                     | 114                     |
| 71600                   | 8,80 | 798                     | 102                     |
| 71600                   | 9,86 | 712                     | 91,3                    |
| 71600                   | 10,8 | 650                     | 83,2                    |
| 71600                   | 12,7 | 555                     | 71,1                    |
| 71600                   | 14,2 | 496                     | 63,5                    |
| 71600                   | 16,0 | 440                     | 56,3                    |
| 71600                   | 17,3 | 406                     | 52,1                    |
| 71600                   | 19,5 | 360                     | 46,1                    |
| 71600                   | 66,4 | 106                     | 13,6                    |

P2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 61400                   | 7,94 | 759                     | 113                     |
| 61400                   | 8,77 | 687                     | 103                     |
| 61400                   | 9,72 | 620                     | 92,6                    |
| 61400                   | 11,4 | 528                     | 78,9                    |
| 61400                   | 12,8 | 472                     | 70,5                    |
| 61400                   | 13,8 | 435                     | 65,0                    |
| 61400                   | 15,5 | 389                     | 58,1                    |
| 61400                   | 17,4 | 346                     | 51,7                    |
| 61400                   | 19,8 | 305                     | 45,5                    |
| 61400                   | 21,8 | 277                     | 41,4                    |
| 61400                   | 24,3 | 249                     | 37,1                    |
| 60300                   | 27,3 | 217                     | 32,9                    |

P2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 89000                   | 7,94 | 1100                    | 113                     |
| 89000                   | 8,80 | 993                     | 102                     |
| 89000                   | 9,78 | 894                     | 92,0                    |
| 89000                   | 10,9 | 801                     | 82,5                    |
| 89000                   | 12,2 | 715                     | 73,6                    |
| 89000                   | 13,4 | 652                     | 67,2                    |
| 89000                   | 15,7 | 557                     | 57,4                    |
| 89000                   | 17,6 | 498                     | 51,3                    |
| 89000                   | 19,8 | 441                     | 45,5                    |
| 89000                   | 21,4 | 408                     | 42,0                    |
| 89000                   | 24,2 | 361                     | 37,2                    |

19.4 PC GEAR REDUCER - 900 rpm

P3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9650                    | 25,0 | 38,7                    | 36,0        |
| 9650                    | 28,5 | 34,0                    | 31,6        |
| 9650                    | 31,2 | 31,1                    | 28,9        |
| 9650                    | 34,2 | 28,3                    | 26,3        |
| 9650                    | 39,5 | 24,5                    | 22,8        |
| 9650                    | 43,7 | 22,1                    | 20,6        |
| 9650                    | 48,7 | 19,9                    | 18,5        |
| 9650                    | 54,5 | 17,7                    | 16,5        |
| 9650                    | 61,5 | 15,7                    | 14,6        |
| 9650                    | 69,7 | 13,9                    | 12,9        |
| 9650                    | 78,7 | 12,3                    | 11,4        |
| 9650                    | 86,8 | 11,1                    | 10,4        |

P3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 18100                   | 25,5 | 70,9                    | 35,2        |
| 18100                   | 27,7 | 65,3                    | 32,5        |
| 18100                   | 31,4 | 57,6                    | 28,6        |
| 18100                   | 34,3 | 52,8                    | 26,2        |
| 18100                   | 39,3 | 46,1                    | 22,9        |
| 18100                   | 43,2 | 41,9                    | 20,8        |
| 18100                   | 50,3 | 36,0                    | 17,9        |
| 18100                   | 56,0 | 32,3                    | 16,1        |
| 18100                   | 62,9 | 28,8                    | 14,3        |
| 18100                   | 71,1 | 25,4                    | 12,7        |
| 18100                   | 78,6 | 23,0                    | 11,5        |
| 16600                   | 89,1 | 18,7                    | 10,1        |

P3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29700                   | 25,4 | 117                     | 35,4        |
| 29700                   | 29,2 | 102                     | 30,8        |
| 29700                   | 31,9 | 93,3                    | 28,2        |
| 29700                   | 35,0 | 85,0                    | 25,7        |
| 29700                   | 40,5 | 73,6                    | 22,2        |
| 29700                   | 44,8 | 66,4                    | 20,1        |
| 29700                   | 49,9 | 59,7                    | 18,0        |
| 29700                   | 55,9 | 53,3                    | 16,1        |
| 29700                   | 63,0 | 47,2                    | 14,3        |
| 29700                   | 70,8 | 42,1                    | 12,7        |
| 29700                   | 79,0 | 37,7                    | 11,4        |
| 28700                   | 89,1 | 32,3                    | 10,1        |

P3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12900                   | 31,0 | 41,7                    | 29,0        |
| 12900                   | 35,3 | 36,6                    | 25,5        |
| 12900                   | 38,6 | 33,5                    | 23,3        |
| 12900                   | 42,4 | 30,5                    | 21,2        |
| 12900                   | 49,0 | 26,4                    | 18,4        |
| 12900                   | 54,2 | 23,8                    | 16,6        |
| 12900                   | 60,3 | 21,4                    | 14,9        |
| 12900                   | 67,6 | 19,1                    | 13,3        |
| 12900                   | 76,3 | 16,9                    | 11,8        |
| 12900                   | 86,4 | 15,0                    | 10,4        |
| 12100                   | 97,6 | 12,4                    | 9,22        |
| 12500                   | 108  | 11,6                    | 8,37        |

P3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 22600                   | 32,2 | 70,5                    | 27,9        |
| 22600                   | 34,9 | 64,9                    | 25,8        |
| 22600                   | 39,6 | 57,2                    | 22,7        |
| 22600                   | 43,2 | 52,5                    | 20,8        |
| 22600                   | 49,5 | 45,8                    | 18,2        |
| 22600                   | 54,5 | 41,6                    | 16,5        |
| 22600                   | 63,4 | 35,8                    | 14,2        |
| 22600                   | 70,7 | 32,1                    | 12,7        |
| 22600                   | 79,3 | 28,6                    | 11,4        |
| 22600                   | 89,7 | 25,3                    | 10,0        |
| 22600                   | 99,1 | 22,9                    | 9,08        |
| 21000                   | 112  | 18,7                    | 8,01        |

P3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36400                   | 31,9 | 115                     | 28,2        |
| 36400                   | 36,6 | 99,8                    | 24,6        |
| 36400                   | 40,0 | 91,3                    | 22,5        |
| 36400                   | 43,9 | 83,2                    | 20,5        |
| 36400                   | 50,7 | 72,0                    | 17,7        |
| 36400                   | 56,2 | 65,0                    | 16,0        |
| 36400                   | 62,5 | 58,4                    | 14,4        |
| 36400                   | 70,0 | 52,2                    | 12,8        |
| 36400                   | 79,0 | 46,2                    | 11,4        |
| 36400                   | 88,7 | 41,2                    | 10,1        |
| 36400                   | 99,1 | 36,9                    | 9,08        |
| 35600                   | 112  | 32,0                    | 8,06        |

## 19.4 PC GEAR REDUCER - 900 rpm

## P3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 52800                   | 24,7 | 214                     | 36,4                    |
| 52800                   | 28,6 | 185                     | 31,5                    |
| 52800                   | 31,6 | 167                     | 28,4                    |
| 52800                   | 35,1 | 151                     | 25,6                    |
| 52800                   | 39,2 | 135                     | 23,0                    |
| 52800                   | 43,2 | 123                     | 20,8                    |
| 52800                   | 47,9 | 111                     | 18,8                    |
| 52800                   | 56,6 | 93,6                    | 15,9                    |
| 52800                   | 63,8 | 83,0                    | 14,1                    |
| 52800                   | 71,4 | 74,2                    | 12,6                    |
| 52800                   | 80,1 | 66,1                    | 11,2                    |
| 52800                   | 85,1 | 62,2                    | 10,6                    |

## P3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 73200                   | 22,0 | 333                     | 40,9                    |
| 73200                   | 25,4 | 289                     | 35,5                    |
| 73200                   | 29,4 | 250                     | 30,6                    |
| 73200                   | 32,5 | 226                     | 27,7                    |
| 73200                   | 36,1 | 203                     | 24,9                    |
| 73200                   | 40,3 | 182                     | 22,4                    |
| 73200                   | 45,1 | 163                     | 19,9                    |
| 73200                   | 51,0 | 144                     | 17,7                    |
| 73200                   | 57,4 | 128                     | 15,7                    |
| 73200                   | 64,7 | 113                     | 13,9                    |
| 73200                   | 73,8 | 99,5                    | 12,2                    |
| 73200                   | 78,3 | 93,8                    | 11,5                    |
| 73200                   | 88,8 | 82,7                    | 10,1                    |

## P3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 64200                   | 31,4 | 205                     | 28,7                    |
| 64200                   | 36,4 | 177                     | 24,7                    |
| 64200                   | 40,2 | 160                     | 22,4                    |
| 64200                   | 44,7 | 144                     | 20,1                    |
| 64200                   | 49,8 | 129                     | 18,1                    |
| 64200                   | 54,9 | 117                     | 16,4                    |
| 64200                   | 60,9 | 106                     | 14,8                    |
| 64200                   | 71,9 | 89,5                    | 12,5                    |
| 64200                   | 81,1 | 79,4                    | 11,1                    |
| 64200                   | 90,8 | 70,9                    | 9,91                    |
| 64200                   | 102  | 63,2                    | 8,84                    |
| 64200                   | 108  | 59,5                    | 8,31                    |

## P3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 90700                   | 27,3 | 333                     | 33,0                    |
| 90700                   | 31,4 | 289                     | 28,6                    |
| 90700                   | 36,4 | 250                     | 24,7                    |
| 90700                   | 40,3 | 226                     | 22,3                    |
| 90700                   | 44,7 | 203                     | 20,1                    |
| 90700                   | 49,9 | 182                     | 18,0                    |
| 90700                   | 56,0 | 162                     | 16,1                    |
| 90700                   | 63,2 | 144                     | 14,2                    |
| 90700                   | 71,1 | 128                     | 12,7                    |
| 90700                   | 80,2 | 113                     | 11,2                    |
| 90700                   | 91,5 | 99,4                    | 9,84                    |
| 90700                   | 97,0 | 93,7                    | 9,28                    |
| 90700                   | 110  | 82,7                    | 8,18                    |

19.4 PC GEAR REDUCER - 900 rpm

P4C 216

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 18100                   | 102 | 18,2                    | 8,86        |
| 18100                   | 115 | 16,0                    | 7,81        |
| 18100                   | 126 | 14,7                    | 7,16        |
| 18100                   | 144 | 12,8                    | 6,25        |
| 18100                   | 158 | 11,7                    | 5,69        |
| 18100                   | 175 | 10,6                    | 5,15        |
| 18100                   | 194 | 9,55                    | 4,65        |
| 18100                   | 229 | 8,09                    | 3,94        |
| 18100                   | 258 | 7,18                    | 3,49        |
| 18100                   | 289 | 6,41                    | 3,12        |
| 18100                   | 305 | 6,06                    | 2,95        |
| 16300                   | 344 | 4,85                    | 2,62        |

P4C 266

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 29700                   | 101 | 30,1                    | 8,89        |
| 29700                   | 115 | 26,4                    | 7,81        |
| 29700                   | 126 | 24,1                    | 7,14        |
| 29700                   | 138 | 22,0                    | 6,51        |
| 29700                   | 160 | 19,0                    | 5,63        |
| 29700                   | 177 | 17,2                    | 5,08        |
| 29700                   | 197 | 15,4                    | 4,57        |
| 29700                   | 221 | 13,8                    | 4,08        |
| 29700                   | 249 | 12,2                    | 3,61        |
| 29700                   | 282 | 10,8                    | 3,19        |
| 29700                   | 319 | 9,55                    | 2,83        |
| 29700                   | 351 | 8,66                    | 2,56        |

P4C 316

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 51300                   | 104 | 50,7                    | 8,68        |
| 51300                   | 112 | 46,7                    | 8,00        |
| 51300                   | 128 | 41,2                    | 7,06        |
| 51300                   | 139 | 37,7                    | 6,47        |
| 51300                   | 159 | 32,9                    | 5,64        |
| 51300                   | 175 | 29,9                    | 5,13        |
| 51300                   | 204 | 25,7                    | 4,41        |
| 51300                   | 227 | 23,1                    | 3,96        |
| 51300                   | 255 | 20,6                    | 3,53        |
| 51300                   | 289 | 18,2                    | 3,12        |
| 51300                   | 319 | 16,5                    | 2,82        |
| 51300                   | 361 | 14,5                    | 2,49        |

P4C 246

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 22600                   | 128 | 18,1                    | 7,03        |
| 22600                   | 145 | 16,0                    | 6,19        |
| 22600                   | 159 | 14,6                    | 5,68        |
| 22600                   | 182 | 12,8                    | 4,96        |
| 22600                   | 200 | 11,6                    | 4,51        |
| 22600                   | 220 | 10,5                    | 4,09        |
| 22600                   | 244 | 9,50                    | 3,69        |
| 22600                   | 288 | 8,04                    | 3,12        |
| 22600                   | 325 | 7,13                    | 2,77        |
| 22600                   | 364 | 6,37                    | 2,47        |
| 22600                   | 385 | 6,02                    | 2,34        |
| 21000                   | 434 | 4,97                    | 2,07        |

P4C 276

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 36800                   | 127 | 29,7                    | 7,09        |
| 36800                   | 145 | 26,1                    | 6,23        |
| 36800                   | 158 | 23,8                    | 5,69        |
| 36800                   | 173 | 21,7                    | 5,19        |
| 36800                   | 200 | 18,8                    | 4,49        |
| 36800                   | 222 | 17,0                    | 4,06        |
| 36800                   | 247 | 15,2                    | 3,64        |
| 36800                   | 277 | 13,6                    | 3,25        |
| 36800                   | 312 | 12,1                    | 2,88        |
| 36800                   | 354 | 10,6                    | 2,54        |
| 36800                   | 399 | 9,43                    | 2,25        |
| 35600                   | 440 | 8,28                    | 2,04        |

P4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 64900                   | 132 | 50,4                    | 6,83        |
| 64900                   | 143 | 46,5                    | 6,29        |
| 64900                   | 162 | 41,0                    | 5,55        |
| 64900                   | 177 | 37,6                    | 5,09        |
| 64900                   | 203 | 32,8                    | 4,44        |
| 64900                   | 223 | 29,8                    | 4,04        |
| 64900                   | 259 | 25,6                    | 3,47        |
| 64900                   | 289 | 23,0                    | 3,11        |
| 64900                   | 324 | 20,5                    | 2,77        |
| 64900                   | 367 | 18,1                    | 2,45        |
| 64900                   | 405 | 16,4                    | 2,22        |
| 64900                   | 460 | 14,5                    | 1,96        |

19.4 PC GEAR REDUCER - 900 rpm

P4C 396

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 75500                   | 103 | 75,0                    | 8,73        |
| 75500                   | 118 | 65,3                    | 7,61        |
| 75500                   | 129 | 59,7                    | 6,96        |
| 75500                   | 142 | 54,5                    | 6,34        |
| 75500                   | 164 | 47,1                    | 5,49        |
| 75500                   | 182 | 42,6                    | 4,95        |
| 75500                   | 202 | 38,2                    | 4,45        |
| 75500                   | 226 | 34,1                    | 3,97        |
| 75500                   | 256 | 30,2                    | 3,52        |
| 75500                   | 287 | 26,9                    | 3,14        |
| 75500                   | 320 | 24,1                    | 2,81        |
| 75500                   | 361 | 21,4                    | 2,49        |

P4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 94000                   | 128 | 75,4                    | 7,04        |
| 94000                   | 147 | 65,7                    | 6,14        |
| 94000                   | 160 | 60,0                    | 5,61        |
| 94000                   | 176 | 54,8                    | 5,12        |
| 94000                   | 203 | 47,4                    | 4,43        |
| 94000                   | 225 | 42,8                    | 4,00        |
| 94000                   | 251 | 38,4                    | 3,59        |
| 94000                   | 281 | 34,3                    | 3,21        |
| 94000                   | 317 | 30,4                    | 2,84        |
| 94000                   | 356 | 27,1                    | 2,53        |
| 94000                   | 397 | 24,3                    | 2,27        |
| 94000                   | 447 | 21,5                    | 2,01        |

## 19.5 PC GEAR REDUCER - 700 rpm

P1C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6720                    | 1,26 | 400                     | 557                     |
| 7060                    | 1,38 | 383                     | 508                     |
| 7220                    | 1,59 | 340                     | 441                     |
| 7390                    | 1,84 | 301                     | 381                     |
| 7900                    | 2,03 | 290                     | 344                     |
| 8060                    | 2,26 | 267                     | 310                     |
| 8060                    | 2,52 | 239                     | 278                     |
| 8060                    | 2,83 | 213                     | 248                     |
| 8060                    | 3,19 | 189                     | 219                     |
| 7980                    | 3,59 | 166                     | 195                     |
| 8060                    | 4,06 | 149                     | 172                     |
| 6470                    | 4,62 | 105                     | 152                     |
| 6050                    | 4,90 | 92,3                    | 143                     |
| 5800                    | 5,56 | 78,0                    | 126                     |

P1C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 20700                   | 1,27 | 1220                    | 551                     |
| 21100                   | 1,40 | 1130                    | 500                     |
| 22800                   | 1,63 | 1050                    | 431                     |
| 23500                   | 1,80 | 977                     | 389                     |
| 24100                   | 2,00 | 902                     | 350                     |
| 24100                   | 2,23 | 808                     | 314                     |
| 24100                   | 2,50 | 721                     | 280                     |
| 22800                   | 2,74 | 623                     | 255                     |
| 23600                   | 3,21 | 550                     | 218                     |
| 24000                   | 3,59 | 500                     | 195                     |
| 24100                   | 4,05 | 445                     | 173                     |
| 20700                   | 4,38 | 353                     | 160                     |
| 19700                   | 4,96 | 298                     | 141                     |
| 16900                   | 5,68 | 222                     | 123                     |

P1C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 56600                   | 1,59 | 2670                    | 441                     |
| 59600                   | 1,84 | 2420                    | 381                     |
| 61200                   | 2,03 | 2250                    | 344                     |
| 63200                   | 2,26 | 2090                    | 310                     |
| 64700                   | 2,52 | 1920                    | 278                     |
| 64700                   | 2,93 | 1650                    | 239                     |
| 61400                   | 3,21 | 1430                    | 218                     |
| 62500                   | 3,59 | 1300                    | 195                     |
| 63600                   | 4,05 | 1170                    | 173                     |
| 51700                   | 4,62 | 838                     | 152                     |
| 49000                   | 4,90 | 748                     | 143                     |
| 46500                   | 5,56 | 626                     | 126                     |

P1C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12800                   | 1,26 | 756                     | 554                     |
| 12900                   | 1,39 | 697                     | 504                     |
| 13700                   | 1,61 | 638                     | 436                     |
| 14600                   | 1,77 | 616                     | 395                     |
| 15000                   | 1,97 | 569                     | 356                     |
| 15000                   | 2,31 | 485                     | 303                     |
| 15000                   | 2,58 | 433                     | 271                     |
| 14400                   | 2,80 | 384                     | 250                     |
| 14600                   | 3,13 | 349                     | 224                     |
| 15000                   | 3,52 | 317                     | 199                     |
| 15000                   | 4,00 | 280                     | 175                     |
| 13300                   | 4,40 | 226                     | 159                     |
| 11600                   | 4,91 | 177                     | 143                     |
| 11000                   | 5,53 | 149                     | 127                     |

P1C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38600                   | 1,64 | 1770                    | 428                     |
| 40000                   | 1,81 | 1660                    | 388                     |
| 41200                   | 2,00 | 1540                    | 350                     |
| 42500                   | 2,22 | 1430                    | 315                     |
| 42500                   | 2,48 | 1280                    | 282                     |
| 42500                   | 2,78 | 1140                    | 252                     |
| 40400                   | 3,08 | 981                     | 227                     |
| 42200                   | 3,48 | 907                     | 201                     |
| 42500                   | 3,91 | 814                     | 179                     |
| 38600                   | 4,42 | 654                     | 158                     |
| 32500                   | 5,15 | 472                     | 136                     |
| 30700                   | 5,47 | 419                     | 128                     |

P2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 8990                    | 6,29 | 109                     | 111         |
| 9410                    | 7,21 | 99,6                    | 97,0        |
| 9410                    | 7,89 | 91,1                    | 88,7        |
| 9410                    | 8,65 | 83,0                    | 80,9        |
| 8820                    | 10,0 | 67,3                    | 70,0        |
| 8900                    | 11,1 | 61,4                    | 63,2        |
| 9410                    | 12,3 | 58,3                    | 56,8        |
| 9410                    | 13,8 | 52,0                    | 50,7        |
| 9410                    | 15,6 | 46,1                    | 44,9        |
| 8820                    | 17,5 | 38,5                    | 40,0        |
| 9410                    | 19,5 | 36,8                    | 35,8        |
| 9160                    | 22,0 | 31,8                    | 31,8        |

P2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 17100                   | 6,09 | 214                     | 115         |
| 17100                   | 7,05 | 185                     | 99,3        |
| 17100                   | 7,80 | 167                     | 89,8        |
| 17100                   | 8,66 | 150                     | 80,8        |
| 17100                   | 9,66 | 135                     | 72,5        |
| 17100                   | 10,6 | 122                     | 65,7        |
| 17000                   | 11,8 | 110                     | 59,3        |
| 17100                   | 13,9 | 93,4                    | 50,2        |
| 17100                   | 15,7 | 82,8                    | 44,5        |
| 16000                   | 17,6 | 69,2                    | 39,8        |
| 16000                   | 19,7 | 61,7                    | 35,5        |
| 16600                   | 21,0 | 60,5                    | 33,4        |

P2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 28300                   | 6,26 | 345                     | 112         |
| 28300                   | 7,25 | 298                     | 96,6        |
| 28300                   | 8,02 | 270                     | 87,3        |
| 28300                   | 8,90 | 243                     | 78,6        |
| 28300                   | 9,93 | 218                     | 70,5        |
| 28300                   | 11,1 | 194                     | 62,8        |
| 28300                   | 12,6 | 172                     | 55,7        |
| 28300                   | 14,2 | 153                     | 49,5        |
| 28300                   | 16,0 | 135                     | 43,9        |
| 28300                   | 18,2 | 119                     | 38,5        |
| 28300                   | 19,3 | 112                     | 36,2        |
| 27800                   | 21,9 | 97,0                    | 32,0        |

P2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11300                   | 7,79 | 111                     | 89,8        |
| 12100                   | 8,94 | 103                     | 78,3        |
| 12100                   | 9,78 | 94,5                    | 71,6        |
| 12100                   | 10,7 | 86,1                    | 65,3        |
| 11300                   | 12,4 | 69,8                    | 56,5        |
| 11300                   | 13,7 | 63,1                    | 51,0        |
| 12100                   | 15,3 | 60,5                    | 45,8        |
| 12100                   | 17,1 | 54,0                    | 40,9        |
| 12100                   | 19,3 | 47,8                    | 36,2        |
| 11300                   | 21,7 | 39,9                    | 32,3        |
| 12000                   | 24,2 | 37,9                    | 28,9        |
| 11700                   | 27,3 | 32,7                    | 25,7        |

P2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 21500                   | 7,68 | 214                     | 91,2        |
| 21500                   | 8,89 | 185                     | 78,8        |
| 21500                   | 9,83 | 167                     | 71,2        |
| 21500                   | 10,9 | 150                     | 64,1        |
| 21500                   | 12,2 | 135                     | 57,5        |
| 21500                   | 13,4 | 122                     | 52,1        |
| 21400                   | 14,9 | 110                     | 47,0        |
| 21500                   | 17,6 | 93,4                    | 39,8        |
| 21500                   | 19,8 | 82,9                    | 35,3        |
| 20200                   | 22,2 | 69,4                    | 31,5        |
| 20200                   | 24,9 | 61,8                    | 28,1        |
| 21000                   | 26,5 | 60,6                    | 26,5        |

P2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 35400                   | 7,85 | 345                     | 89,2        |
| 35400                   | 9,09 | 298                     | 77,1        |
| 35400                   | 10,1 | 269                     | 69,6        |
| 35400                   | 11,2 | 242                     | 62,7        |
| 35400                   | 12,5 | 217                     | 56,2        |
| 35400                   | 14,0 | 194                     | 50,1        |
| 35400                   | 15,8 | 172                     | 44,4        |
| 35400                   | 17,7 | 153                     | 39,5        |
| 35400                   | 20,0 | 135                     | 35,0        |
| 35400                   | 22,8 | 119                     | 30,7        |
| 35400                   | 24,2 | 112                     | 28,9        |
| 34900                   | 27,5 | 97,2                    | 25,5        |

## 19.5 PC GEAR REDUCER - 700 rpm

## P2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49800                   | 6,25 | 609                     | 112                     |
| 49800                   | 6,90 | 551                     | 101                     |
| 49800                   | 7,64 | 498                     | 91,6                    |
| 49800                   | 8,97 | 424                     | 78,0                    |
| 49800                   | 10,0 | 379                     | 69,7                    |
| 49800                   | 10,9 | 349                     | 64,3                    |
| 49800                   | 12,2 | 312                     | 57,5                    |
| 49800                   | 13,7 | 278                     | 51,1                    |
| 49800                   | 15,6 | 244                     | 45,0                    |
| 49800                   | 17,1 | 222                     | 40,9                    |
| 49800                   | 19,7 | 193                     | 35,5                    |
| 49000                   | 21,5 | 174                     | 32,6                    |

## P2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 72200                   | 7,10 | 777                     | 98,6                    |
| 72200                   | 7,89 | 699                     | 88,7                    |
| 72200                   | 8,80 | 627                     | 79,6                    |
| 72200                   | 9,86 | 559                     | 71,0                    |
| 72200                   | 10,8 | 510                     | 64,7                    |
| 72200                   | 12,7 | 436                     | 55,3                    |
| 72200                   | 14,2 | 389                     | 49,4                    |
| 72200                   | 16,0 | 345                     | 43,8                    |
| 72200                   | 17,3 | 319                     | 40,5                    |
| 72200                   | 19,5 | 283                     | 35,9                    |
| 72200                   | 66,4 | 83,1                    | 10,5                    |

## P2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 62000                   | 7,94 | 596                     | 88,2                    |
| 62000                   | 8,77 | 540                     | 79,8                    |
| 62000                   | 9,72 | 487                     | 72,0                    |
| 62000                   | 11,4 | 415                     | 61,3                    |
| 62000                   | 12,8 | 371                     | 54,8                    |
| 62000                   | 13,8 | 342                     | 50,6                    |
| 62000                   | 15,5 | 306                     | 45,2                    |
| 62000                   | 17,4 | 272                     | 40,2                    |
| 62000                   | 19,8 | 239                     | 35,4                    |
| 62000                   | 21,8 | 218                     | 32,2                    |
| 62000                   | 24,3 | 195                     | 28,9                    |
| 60900                   | 27,3 | 170                     | 25,6                    |

## P2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 89900                   | 7,94 | 864                     | 88,1                    |
| 89900                   | 8,80 | 780                     | 79,5                    |
| 89900                   | 9,78 | 702                     | 71,6                    |
| 89900                   | 10,9 | 629                     | 64,2                    |
| 89900                   | 12,2 | 561                     | 57,3                    |
| 89900                   | 13,4 | 512                     | 52,2                    |
| 89900                   | 15,7 | 438                     | 44,6                    |
| 89900                   | 17,6 | 391                     | 39,9                    |
| 89900                   | 19,8 | 347                     | 35,4                    |
| 89900                   | 21,4 | 320                     | 32,7                    |
| 89900                   | 24,2 | 284                     | 28,9                    |

P3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9740                    | 25,0 | 30,4                    | 28,0                    |
| 9740                    | 28,5 | 26,7                    | 24,6                    |
| 9740                    | 31,2 | 24,4                    | 22,5                    |
| 9740                    | 34,2 | 22,2                    | 20,5                    |
| 9740                    | 39,5 | 19,2                    | 17,7                    |
| 9740                    | 43,7 | 17,4                    | 16,0                    |
| 9740                    | 48,7 | 15,6                    | 14,4                    |
| 9740                    | 54,5 | 13,9                    | 12,8                    |
| 9740                    | 61,5 | 12,3                    | 11,4                    |
| 9740                    | 69,7 | 10,9                    | 10,0                    |
| 9740                    | 78,7 | 9,65                    | 8,89                    |
| 9740                    | 86,8 | 8,75                    | 8,06                    |

P3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18200                   | 25,5 | 55,7                    | 27,4                    |
| 18200                   | 27,7 | 51,3                    | 25,3                    |
| 18200                   | 31,4 | 45,2                    | 22,3                    |
| 18200                   | 34,3 | 41,5                    | 20,4                    |
| 18200                   | 39,3 | 36,2                    | 17,8                    |
| 18200                   | 43,2 | 32,9                    | 16,2                    |
| 18200                   | 50,3 | 28,3                    | 13,9                    |
| 18200                   | 56,0 | 25,4                    | 12,5                    |
| 18200                   | 62,9 | 22,6                    | 11,1                    |
| 18200                   | 71,1 | 20,0                    | 9,84                    |
| 18200                   | 78,6 | 18,1                    | 8,91                    |
| 16800                   | 89,1 | 14,7                    | 7,86                    |

P3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30000                   | 25,4 | 91,9                    | 27,5                    |
| 30000                   | 29,2 | 80,1                    | 24,0                    |
| 30000                   | 31,9 | 73,2                    | 21,9                    |
| 30000                   | 35,0 | 66,8                    | 20,0                    |
| 30000                   | 40,5 | 57,8                    | 17,3                    |
| 30000                   | 44,8 | 52,2                    | 15,6                    |
| 30000                   | 49,9 | 46,9                    | 14,0                    |
| 30000                   | 55,9 | 41,9                    | 12,5                    |
| 30000                   | 63,0 | 37,1                    | 11,1                    |
| 30000                   | 70,8 | 33,0                    | 9,89                    |
| 30000                   | 79,0 | 29,6                    | 8,86                    |
| 29000                   | 89,1 | 25,4                    | 7,86                    |

P3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13000                   | 31,0 | 32,8                    | 22,6                    |
| 13000                   | 35,3 | 28,8                    | 19,8                    |
| 13000                   | 38,6 | 26,3                    | 18,1                    |
| 13000                   | 42,4 | 24,0                    | 16,5                    |
| 13000                   | 49,0 | 20,7                    | 14,3                    |
| 13000                   | 54,2 | 18,7                    | 12,9                    |
| 13000                   | 60,3 | 16,8                    | 11,6                    |
| 13000                   | 67,6 | 15,0                    | 10,4                    |
| 13000                   | 76,3 | 13,3                    | 9,18                    |
| 13000                   | 86,4 | 11,7                    | 8,10                    |
| 12200                   | 97,6 | 9,73                    | 7,17                    |
| 12600                   | 108  | 9,13                    | 6,51                    |

P3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 22800                   | 32,2 | 55,3                    | 21,7                    |
| 22800                   | 34,9 | 51,0                    | 20,0                    |
| 22800                   | 39,6 | 45,0                    | 17,7                    |
| 22800                   | 43,2 | 41,2                    | 16,2                    |
| 22800                   | 49,5 | 36,0                    | 14,1                    |
| 22800                   | 54,5 | 32,7                    | 12,8                    |
| 22800                   | 63,4 | 28,1                    | 11,0                    |
| 22800                   | 70,7 | 25,2                    | 9,91                    |
| 22800                   | 79,3 | 22,5                    | 8,83                    |
| 22800                   | 89,7 | 19,9                    | 7,80                    |
| 22800                   | 99,1 | 18,0                    | 7,06                    |
| 21200                   | 112  | 14,7                    | 6,23                    |

P3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36800                   | 31,9 | 90,0                    | 21,9                    |
| 36800                   | 36,6 | 78,4                    | 19,1                    |
| 36800                   | 40,0 | 71,7                    | 17,5                    |
| 36800                   | 43,9 | 65,4                    | 15,9                    |
| 36800                   | 50,7 | 56,5                    | 13,8                    |
| 36800                   | 56,2 | 51,1                    | 12,5                    |
| 36800                   | 62,5 | 45,9                    | 11,2                    |
| 36800                   | 70,0 | 41,0                    | 9,99                    |
| 36800                   | 79,0 | 36,3                    | 8,86                    |
| 36800                   | 88,7 | 32,3                    | 7,89                    |
| 36800                   | 99,1 | 28,9                    | 7,06                    |
| 36000                   | 112  | 25,1                    | 6,27                    |

## 19.5 PC GEAR REDUCER - 700 rpm

## P3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 53300                   | 24,7 | 168                     | 28,3        |
| 53300                   | 28,6 | 145                     | 24,5        |
| 53300                   | 31,6 | 131                     | 22,1        |
| 53300                   | 35,1 | 118                     | 19,9        |
| 53300                   | 39,2 | 106                     | 17,9        |
| 53300                   | 43,2 | 96,3                    | 16,2        |
| 53300                   | 47,9 | 86,8                    | 14,6        |
| 53300                   | 56,6 | 73,5                    | 12,4        |
| 53300                   | 63,8 | 65,2                    | 11,0        |
| 53300                   | 71,4 | 58,2                    | 9,80        |
| 53300                   | 80,1 | 51,9                    | 8,74        |
| 53300                   | 85,1 | 48,8                    | 8,22        |

## P3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 73900                   | 22,0 | 262                     | 31,8        |
| 73900                   | 25,4 | 227                     | 27,6        |
| 73900                   | 29,4 | 196                     | 23,8        |
| 73900                   | 32,5 | 177                     | 21,5        |
| 73900                   | 36,1 | 160                     | 19,4        |
| 73900                   | 40,3 | 143                     | 17,4        |
| 73900                   | 45,1 | 128                     | 15,5        |
| 73900                   | 51,0 | 113                     | 13,7        |
| 73900                   | 57,4 | 100                     | 12,2        |
| 73900                   | 64,7 | 89,1                    | 10,8        |
| 73900                   | 73,8 | 78,1                    | 9,49        |
| 73900                   | 78,3 | 73,6                    | 8,94        |
| 73900                   | 88,8 | 64,9                    | 7,89        |

## P3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 64800                   | 31,4 | 161                     | 22,3        |
| 64800                   | 36,4 | 139                     | 19,2        |
| 64800                   | 40,2 | 126                     | 17,4        |
| 64800                   | 44,7 | 113                     | 15,7        |
| 64800                   | 49,8 | 101                     | 14,0        |
| 64800                   | 54,9 | 92,0                    | 12,7        |
| 64800                   | 60,9 | 83,0                    | 11,5        |
| 64800                   | 71,9 | 70,3                    | 9,73        |
| 64800                   | 81,1 | 62,4                    | 8,63        |
| 64800                   | 90,8 | 55,7                    | 7,71        |
| 64800                   | 102  | 49,6                    | 6,87        |
| 64800                   | 108  | 46,7                    | 6,47        |

## P3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 91600                   | 27,3 | 262                     | 25,6        |
| 91600                   | 31,4 | 227                     | 22,3        |
| 91600                   | 36,4 | 196                     | 19,2        |
| 91600                   | 40,3 | 177                     | 17,4        |
| 91600                   | 44,7 | 160                     | 15,6        |
| 91600                   | 49,9 | 143                     | 14,0        |
| 91600                   | 56,0 | 128                     | 12,5        |
| 91600                   | 63,2 | 113                     | 11,1        |
| 91600                   | 71,1 | 100                     | 9,85        |
| 91600                   | 80,2 | 89,0                    | 8,73        |
| 91600                   | 91,5 | 78,1                    | 7,65        |
| 91600                   | 97,0 | 73,6                    | 7,22        |
| 91600                   | 110  | 64,9                    | 6,36        |

P4C 216

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 18200                   | 102 | 14,3                    | 6,89        |
| 18200                   | 115 | 12,6                    | 6,07        |
| 18200                   | 126 | 11,6                    | 5,57        |
| 18200                   | 144 | 10,1                    | 4,86        |
| 18200                   | 158 | 9,18                    | 4,42        |
| 18200                   | 175 | 8,32                    | 4,01        |
| 18200                   | 194 | 7,50                    | 3,62        |
| 18200                   | 229 | 6,35                    | 3,06        |
| 18200                   | 258 | 5,63                    | 2,72        |
| 18200                   | 289 | 5,03                    | 2,43        |
| 18200                   | 305 | 4,76                    | 2,29        |
| 16500                   | 344 | 3,81                    | 2,03        |

P4C 266

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 30000                   | 101 | 23,6                    | 6,92        |
| 30000                   | 115 | 20,7                    | 6,07        |
| 30000                   | 126 | 18,9                    | 5,55        |
| 30000                   | 138 | 17,3                    | 5,06        |
| 30000                   | 160 | 14,9                    | 4,38        |
| 30000                   | 177 | 13,5                    | 3,95        |
| 30000                   | 197 | 12,1                    | 3,55        |
| 30000                   | 221 | 10,8                    | 3,17        |
| 30000                   | 249 | 9,59                    | 2,81        |
| 30000                   | 282 | 8,47                    | 2,48        |
| 30000                   | 319 | 7,50                    | 2,20        |
| 30000                   | 351 | 6,80                    | 1,99        |

P4C 316

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 51700                   | 104 | 39,8                    | 6,75        |
| 51700                   | 112 | 36,7                    | 6,22        |
| 51700                   | 128 | 32,3                    | 5,49        |
| 51700                   | 139 | 29,6                    | 5,03        |
| 51700                   | 159 | 25,9                    | 4,39        |
| 51700                   | 175 | 23,5                    | 3,99        |
| 51700                   | 204 | 20,2                    | 3,43        |
| 51700                   | 227 | 18,1                    | 3,08        |
| 51700                   | 255 | 16,2                    | 2,74        |
| 51700                   | 289 | 14,3                    | 2,42        |
| 51700                   | 319 | 12,9                    | 2,20        |
| 51700                   | 361 | 11,4                    | 1,94        |

P4C 246

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 22800                   | 128 | 14,2                    | 5,47        |
| 22800                   | 145 | 12,5                    | 4,82        |
| 22800                   | 159 | 11,5                    | 4,42        |
| 22800                   | 182 | 10,0                    | 3,86        |
| 22800                   | 200 | 9,12                    | 3,51        |
| 22800                   | 220 | 8,27                    | 3,18        |
| 22800                   | 244 | 7,46                    | 2,87        |
| 22800                   | 288 | 6,32                    | 2,43        |
| 22800                   | 325 | 5,60                    | 2,15        |
| 22800                   | 364 | 5,00                    | 1,92        |
| 22800                   | 385 | 4,73                    | 1,82        |
| 21300                   | 434 | 3,90                    | 1,61        |

P4C 276

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 37100                   | 127 | 23,3                    | 5,52        |
| 37100                   | 145 | 20,5                    | 4,84        |
| 37100                   | 158 | 18,7                    | 4,43        |
| 37100                   | 173 | 17,1                    | 4,04        |
| 37100                   | 200 | 14,8                    | 3,49        |
| 37100                   | 222 | 13,3                    | 3,15        |
| 37100                   | 247 | 12,0                    | 2,83        |
| 37100                   | 277 | 10,7                    | 2,53        |
| 37100                   | 312 | 9,47                    | 2,24        |
| 37100                   | 354 | 8,36                    | 1,98        |
| 37100                   | 399 | 7,41                    | 1,75        |
| 36000                   | 440 | 6,50                    | 1,59        |

P4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 65500                   | 132 | 39,6                    | 5,31        |
| 65500                   | 143 | 36,5                    | 4,90        |
| 65500                   | 162 | 32,2                    | 4,32        |
| 65500                   | 177 | 29,5                    | 3,96        |
| 65500                   | 203 | 25,8                    | 3,45        |
| 65500                   | 223 | 23,4                    | 3,14        |
| 65500                   | 259 | 20,1                    | 2,70        |
| 65500                   | 289 | 18,1                    | 2,42        |
| 65500                   | 324 | 16,1                    | 2,16        |
| 65500                   | 367 | 14,2                    | 1,91        |
| 65500                   | 405 | 12,9                    | 1,73        |
| 65500                   | 460 | 11,4                    | 1,52        |

## 19.5 PC GEAR REDUCER - 700 rpm

## P4C 396

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 76200                   | 103 | 58,9                    | 6,79                    |
| 76200                   | 118 | 51,3                    | 5,92                    |
| 76200                   | 129 | 46,9                    | 5,41                    |
| 76200                   | 142 | 42,8                    | 4,93                    |
| 76200                   | 164 | 37,0                    | 4,27                    |
| 76200                   | 182 | 33,4                    | 3,85                    |
| 76200                   | 202 | 30,0                    | 3,46                    |
| 76200                   | 226 | 26,8                    | 3,09                    |
| 76200                   | 256 | 23,8                    | 2,74                    |
| 76200                   | 287 | 21,2                    | 2,44                    |
| 76200                   | 320 | 18,9                    | 2,18                    |
| 76200                   | 361 | 16,8                    | 1,94                    |

## P4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 94900                   | 128 | 59,2                    | 5,48                    |
| 94900                   | 147 | 51,6                    | 4,77                    |
| 94900                   | 160 | 47,2                    | 4,36                    |
| 94900                   | 176 | 43,0                    | 3,98                    |
| 94900                   | 203 | 37,2                    | 3,44                    |
| 94900                   | 225 | 33,6                    | 3,11                    |
| 94900                   | 251 | 30,2                    | 2,79                    |
| 94900                   | 281 | 26,9                    | 2,49                    |
| 94900                   | 317 | 23,9                    | 2,21                    |
| 94900                   | 356 | 21,3                    | 1,97                    |
| 94900                   | 397 | 19,0                    | 1,76                    |
| 94900                   | 447 | 16,9                    | 1,56                    |

## 19.6 PC GEAR REDUCER - 500 rpm

## P1C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6820                    | 1,26 | 290                     | 398                     |
| 7160                    | 1,38 | 277                     | 363                     |
| 7330                    | 1,59 | 247                     | 315                     |
| 7500                    | 1,84 | 218                     | 272                     |
| 8010                    | 2,03 | 210                     | 246                     |
| 8180                    | 2,26 | 193                     | 221                     |
| 8180                    | 2,52 | 173                     | 198                     |
| 8180                    | 2,83 | 155                     | 177                     |
| 8180                    | 3,19 | 137                     | 157                     |
| 8090                    | 3,59 | 120                     | 139                     |
| 8180                    | 4,06 | 108                     | 123                     |
| 6560                    | 4,62 | 75,9                    | 108                     |
| 6130                    | 4,90 | 66,9                    | 102                     |
| 5880                    | 5,56 | 56,5                    | 90,0                    |

## P1C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 21000                   | 1,27 | 885                     | 394                     |
| 21400                   | 1,40 | 818                     | 357                     |
| 23100                   | 1,63 | 759                     | 308                     |
| 23900                   | 1,80 | 708                     | 278                     |
| 24500                   | 2,00 | 653                     | 250                     |
| 24500                   | 2,23 | 586                     | 224                     |
| 24500                   | 2,50 | 523                     | 200                     |
| 23200                   | 2,74 | 452                     | 182                     |
| 23900                   | 3,21 | 399                     | 156                     |
| 24400                   | 3,59 | 363                     | 139                     |
| 24500                   | 4,05 | 323                     | 123                     |
| 21000                   | 4,38 | 256                     | 114                     |
| 20000                   | 4,96 | 216                     | 101                     |
| 17100                   | 5,68 | 161                     | 88,0                    |

## P1C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 57400                   | 1,59 | 1930                    | 315                     |
| 60400                   | 1,84 | 1750                    | 272                     |
| 62100                   | 2,03 | 1630                    | 246                     |
| 64100                   | 2,26 | 1520                    | 221                     |
| 65600                   | 2,52 | 1390                    | 198                     |
| 65600                   | 2,93 | 1200                    | 171                     |
| 62300                   | 3,21 | 1040                    | 156                     |
| 63400                   | 3,59 | 943                     | 139                     |
| 64500                   | 4,05 | 851                     | 123                     |
| 52500                   | 4,62 | 607                     | 108                     |
| 49700                   | 4,90 | 542                     | 102                     |
| 47200                   | 5,56 | 454                     | 90,0                    |

## P1C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13000                   | 1,26 | 548                     | 396                     |
| 13100                   | 1,39 | 505                     | 360                     |
| 13900                   | 1,61 | 462                     | 311                     |
| 14800                   | 1,77 | 446                     | 282                     |
| 15200                   | 1,97 | 412                     | 254                     |
| 15200                   | 2,31 | 351                     | 217                     |
| 15200                   | 2,58 | 314                     | 194                     |
| 14600                   | 2,80 | 278                     | 179                     |
| 14800                   | 3,13 | 253                     | 160                     |
| 15200                   | 3,52 | 230                     | 142                     |
| 15200                   | 4,00 | 203                     | 125                     |
| 13500                   | 4,40 | 163                     | 114                     |
| 11800                   | 4,91 | 128                     | 102                     |
| 11200                   | 5,53 | 108                     | 90,5                    |

## P1C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39200                   | 1,64 | 1280                    | 306                     |
| 40600                   | 1,81 | 1200                    | 277                     |
| 41800                   | 2,00 | 1120                    | 250                     |
| 43100                   | 2,22 | 1040                    | 225                     |
| 43100                   | 2,48 | 929                     | 202                     |
| 43100                   | 2,78 | 828                     | 180                     |
| 41000                   | 3,08 | 711                     | 162                     |
| 42800                   | 3,48 | 657                     | 144                     |
| 43100                   | 3,91 | 590                     | 128                     |
| 39200                   | 4,42 | 474                     | 113                     |
| 33000                   | 5,15 | 342                     | 97,1                    |
| 31100                   | 5,47 | 304                     | 91,3                    |

19.6 PC GEAR REDUCER - 500 rpm

P2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9120                    | 6,29 | 79,1                    | 79,5        |
| 9540                    | 7,21 | 72,2                    | 69,3        |
| 9540                    | 7,89 | 66,0                    | 63,4        |
| 9540                    | 8,65 | 60,2                    | 57,8        |
| 8950                    | 10,0 | 48,8                    | 50,0        |
| 9030                    | 11,1 | 44,5                    | 45,1        |
| 9540                    | 12,3 | 42,2                    | 40,6        |
| 9540                    | 13,8 | 37,7                    | 36,2        |
| 9540                    | 15,6 | 33,4                    | 32,1        |
| 8950                    | 17,5 | 27,9                    | 28,6        |
| 9540                    | 19,5 | 26,6                    | 25,6        |
| 9290                    | 22,0 | 23,0                    | 22,7        |

P2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 17300                   | 6,09 | 155                     | 82,1        |
| 17300                   | 7,05 | 134                     | 70,9        |
| 17300                   | 7,80 | 121                     | 64,1        |
| 17300                   | 8,66 | 109                     | 57,7        |
| 17300                   | 9,66 | 97,6                    | 51,8        |
| 17300                   | 10,6 | 88,6                    | 47,0        |
| 17200                   | 11,8 | 79,5                    | 42,3        |
| 17300                   | 13,9 | 67,7                    | 35,9        |
| 17300                   | 15,7 | 60,0                    | 31,8        |
| 16200                   | 17,6 | 50,2                    | 28,4        |
| 16200                   | 19,7 | 44,7                    | 25,3        |
| 16900                   | 21,0 | 43,8                    | 23,8        |

P2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 28700                   | 6,26 | 250                     | 79,9        |
| 28700                   | 7,25 | 216                     | 69,0        |
| 28700                   | 8,02 | 195                     | 62,4        |
| 28700                   | 8,90 | 176                     | 56,2        |
| 28700                   | 9,93 | 158                     | 50,3        |
| 28700                   | 11,1 | 141                     | 44,9        |
| 28700                   | 12,6 | 125                     | 39,8        |
| 28700                   | 14,2 | 111                     | 35,3        |
| 28700                   | 16,0 | 98,1                    | 31,3        |
| 28700                   | 18,2 | 86,0                    | 27,5        |
| 28700                   | 19,3 | 81,1                    | 25,9        |
| 28200                   | 21,9 | 70,2                    | 22,8        |

P2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11500                   | 7,79 | 80,5                    | 64,2        |
| 12300                   | 8,94 | 74,8                    | 55,9        |
| 12300                   | 9,78 | 68,4                    | 51,1        |
| 12300                   | 10,7 | 62,4                    | 46,6        |
| 11500                   | 12,4 | 50,6                    | 40,3        |
| 11500                   | 13,7 | 45,7                    | 36,4        |
| 12300                   | 15,3 | 43,8                    | 32,7        |
| 12300                   | 17,1 | 39,1                    | 29,2        |
| 12300                   | 19,3 | 34,6                    | 25,9        |
| 11500                   | 21,7 | 28,9                    | 23,1        |
| 12200                   | 24,2 | 27,4                    | 20,7        |
| 11800                   | 27,3 | 23,7                    | 18,3        |

P2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 21800                   | 7,68 | 155                     | 65,1        |
| 21800                   | 8,89 | 134                     | 56,3        |
| 21800                   | 9,83 | 121                     | 50,8        |
| 21800                   | 10,9 | 109                     | 45,8        |
| 21800                   | 12,2 | 97,7                    | 41,1        |
| 21800                   | 13,4 | 88,6                    | 37,2        |
| 21700                   | 14,9 | 79,6                    | 33,6        |
| 21800                   | 17,6 | 67,7                    | 28,4        |
| 21800                   | 19,8 | 60,0                    | 25,2        |
| 20400                   | 22,2 | 50,3                    | 22,5        |
| 20400                   | 24,9 | 44,8                    | 20,1        |
| 21300                   | 26,5 | 43,9                    | 18,9        |

P2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36000                   | 7,85 | 250                     | 63,7        |
| 36000                   | 9,09 | 216                     | 55,0        |
| 36000                   | 10,1 | 195                     | 49,7        |
| 36000                   | 11,2 | 176                     | 44,8        |
| 36000                   | 12,5 | 157                     | 40,2        |
| 36000                   | 14,0 | 140                     | 35,8        |
| 36000                   | 15,8 | 124                     | 31,7        |
| 36000                   | 17,7 | 111                     | 28,2        |
| 36000                   | 20,0 | 98,0                    | 25,0        |
| 36000                   | 22,8 | 85,9                    | 21,9        |
| 36000                   | 24,2 | 81,0                    | 20,7        |
| 35400                   | 27,5 | 70,4                    | 18,2        |

## 19.6 PC GEAR REDUCER - 500 rpm

## P2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 50500                   | 6,25 | 441                     | 80,1                    |
| 50500                   | 6,90 | 399                     | 72,5                    |
| 50500                   | 7,64 | 360                     | 65,4                    |
| 50500                   | 8,97 | 307                     | 55,7                    |
| 50500                   | 10,0 | 274                     | 49,8                    |
| 50500                   | 10,9 | 253                     | 45,9                    |
| 50500                   | 12,2 | 226                     | 41,1                    |
| 50500                   | 13,7 | 201                     | 36,5                    |
| 50500                   | 15,6 | 177                     | 32,1                    |
| 50500                   | 17,1 | 161                     | 29,2                    |
| 50500                   | 19,7 | 140                     | 25,4                    |
| 49700                   | 21,5 | 126                     | 23,3                    |

## P2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 73300                   | 7,10 | 563                     | 70,4                    |
| 73300                   | 7,89 | 507                     | 63,4                    |
| 73300                   | 8,80 | 454                     | 56,8                    |
| 73300                   | 9,86 | 405                     | 50,7                    |
| 73300                   | 10,8 | 370                     | 46,2                    |
| 73300                   | 12,7 | 316                     | 39,5                    |
| 73300                   | 14,2 | 282                     | 35,3                    |
| 73300                   | 16,0 | 250                     | 31,3                    |
| 73300                   | 17,3 | 231                     | 28,9                    |
| 73300                   | 19,5 | 205                     | 25,6                    |
| 73300                   | 66,4 | 60,2                    | 7,53                    |

## P2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 62900                   | 7,94 | 432                     | 63,0                    |
| 62900                   | 8,77 | 391                     | 57,0                    |
| 62900                   | 9,72 | 353                     | 51,5                    |
| 62900                   | 11,4 | 301                     | 43,8                    |
| 62900                   | 12,8 | 268                     | 39,1                    |
| 62900                   | 13,8 | 248                     | 36,1                    |
| 62900                   | 15,5 | 222                     | 32,3                    |
| 62900                   | 17,4 | 197                     | 28,7                    |
| 62900                   | 19,8 | 173                     | 25,3                    |
| 62900                   | 21,8 | 158                     | 23,0                    |
| 62900                   | 24,3 | 141                     | 20,6                    |
| 61800                   | 27,3 | 123                     | 18,3                    |

## P2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 91200                   | 7,94 | 626                     | 62,9                    |
| 91200                   | 8,80 | 565                     | 56,8                    |
| 91200                   | 9,78 | 508                     | 51,1                    |
| 91200                   | 10,9 | 456                     | 45,8                    |
| 91200                   | 12,2 | 407                     | 40,9                    |
| 91200                   | 13,4 | 371                     | 37,3                    |
| 91200                   | 15,7 | 317                     | 31,9                    |
| 91200                   | 17,6 | 283                     | 28,5                    |
| 91200                   | 19,8 | 251                     | 25,3                    |
| 91200                   | 21,4 | 232                     | 23,3                    |
| 91200                   | 24,2 | 206                     | 20,7                    |

## 19.6 PC GEAR REDUCER - 500 rpm

## P3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9880                    | 25,0 | 22,0                    | 20,0                    |
| 9880                    | 28,5 | 19,3                    | 17,6                    |
| 9880                    | 31,2 | 17,7                    | 16,0                    |
| 9880                    | 34,2 | 16,1                    | 14,6                    |
| 9880                    | 39,5 | 13,9                    | 12,7                    |
| 9880                    | 43,7 | 12,6                    | 11,4                    |
| 9880                    | 48,7 | 11,3                    | 10,3                    |
| 9880                    | 54,5 | 10,1                    | 9,17                    |
| 9880                    | 61,5 | 8,94                    | 8,12                    |
| 9880                    | 69,7 | 7,89                    | 7,17                    |
| 9880                    | 78,7 | 6,99                    | 6,35                    |
| 9880                    | 86,8 | 6,34                    | 5,76                    |

## P3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18500                   | 25,5 | 40,3                    | 19,6                    |
| 18500                   | 27,7 | 37,2                    | 18,0                    |
| 18500                   | 31,4 | 32,8                    | 15,9                    |
| 18500                   | 34,3 | 30,0                    | 14,6                    |
| 18500                   | 39,3 | 26,2                    | 12,7                    |
| 18500                   | 43,2 | 23,8                    | 11,6                    |
| 18500                   | 50,3 | 20,5                    | 9,94                    |
| 18500                   | 56,0 | 18,4                    | 8,92                    |
| 18500                   | 62,9 | 16,4                    | 7,95                    |
| 18500                   | 71,1 | 14,5                    | 7,03                    |
| 18500                   | 78,6 | 13,1                    | 6,36                    |
| 17000                   | 89,1 | 10,7                    | 5,61                    |

## P3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30400                   | 25,4 | 66,6                    | 19,7                    |
| 30400                   | 29,2 | 58,0                    | 17,1                    |
| 30400                   | 31,9 | 53,1                    | 15,7                    |
| 30400                   | 35,0 | 48,4                    | 14,3                    |
| 30400                   | 40,5 | 41,9                    | 12,4                    |
| 30400                   | 44,8 | 37,8                    | 11,2                    |
| 30400                   | 49,9 | 34,0                    | 10,0                    |
| 30400                   | 55,9 | 30,3                    | 8,95                    |
| 30400                   | 63,0 | 26,9                    | 7,93                    |
| 30400                   | 70,8 | 23,9                    | 7,06                    |
| 30400                   | 79,0 | 21,4                    | 6,33                    |
| 29400                   | 89,1 | 18,4                    | 5,61                    |

## P3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13200                   | 31,0 | 23,7                    | 16,1                    |
| 13200                   | 35,3 | 20,8                    | 14,2                    |
| 13200                   | 38,6 | 19,0                    | 12,9                    |
| 13200                   | 42,4 | 17,4                    | 11,8                    |
| 13200                   | 49,0 | 15,0                    | 10,2                    |
| 13200                   | 54,2 | 13,6                    | 9,22                    |
| 13200                   | 60,3 | 12,2                    | 8,29                    |
| 13200                   | 67,6 | 10,9                    | 7,40                    |
| 13200                   | 76,3 | 9,64                    | 6,55                    |
| 13200                   | 86,4 | 8,51                    | 5,78                    |
| 12400                   | 97,6 | 7,05                    | 5,12                    |
| 12800                   | 108  | 6,62                    | 4,65                    |

## P3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23200                   | 32,2 | 40,1                    | 15,5                    |
| 23200                   | 34,9 | 36,9                    | 14,3                    |
| 23200                   | 39,6 | 32,6                    | 12,6                    |
| 23200                   | 43,2 | 29,9                    | 11,6                    |
| 23200                   | 49,5 | 26,1                    | 10,1                    |
| 23200                   | 54,5 | 23,7                    | 9,17                    |
| 23200                   | 63,4 | 20,4                    | 7,88                    |
| 23200                   | 70,7 | 18,3                    | 7,08                    |
| 23200                   | 79,3 | 16,3                    | 6,31                    |
| 23200                   | 89,7 | 14,4                    | 5,57                    |
| 23200                   | 99,1 | 13,0                    | 5,05                    |
| 21500                   | 112  | 10,6                    | 4,45                    |

## P3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37300                   | 31,9 | 65,2                    | 15,7                    |
| 37300                   | 36,6 | 56,8                    | 13,7                    |
| 37300                   | 40,0 | 51,9                    | 12,5                    |
| 37300                   | 43,9 | 47,3                    | 11,4                    |
| 37300                   | 50,7 | 41,0                    | 9,85                    |
| 37300                   | 56,2 | 37,0                    | 8,90                    |
| 37300                   | 62,5 | 33,2                    | 8,00                    |
| 37300                   | 70,0 | 29,7                    | 7,14                    |
| 37300                   | 79,0 | 26,3                    | 6,33                    |
| 37300                   | 88,7 | 23,4                    | 5,63                    |
| 37300                   | 99,1 | 21,0                    | 5,05                    |
| 36500                   | 112  | 18,2                    | 4,48                    |

19.6 PC GEAR REDUCER - 500 rpm

P3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 54100                   | 24,7 | 122                     | 20,2        |
| 54100                   | 28,6 | 105                     | 17,5        |
| 54100                   | 31,6 | 95,2                    | 15,8        |
| 54100                   | 35,1 | 85,7                    | 14,2        |
| 54100                   | 39,2 | 76,9                    | 12,8        |
| 54100                   | 43,2 | 69,7                    | 11,6        |
| 54100                   | 47,9 | 62,9                    | 10,4        |
| 54100                   | 56,6 | 53,3                    | 8,84        |
| 54100                   | 63,8 | 47,2                    | 7,84        |
| 54100                   | 71,4 | 42,2                    | 7,00        |
| 54100                   | 80,1 | 37,6                    | 6,24        |
| 54100                   | 85,1 | 35,4                    | 5,87        |

P3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 75000                   | 22,0 | 190                     | 22,7        |
| 75000                   | 25,4 | 165                     | 19,7        |
| 75000                   | 29,4 | 142                     | 17,0        |
| 75000                   | 32,5 | 128                     | 15,4        |
| 75000                   | 36,1 | 116                     | 13,9        |
| 75000                   | 40,3 | 104                     | 12,4        |
| 75000                   | 45,1 | 92,5                    | 11,1        |
| 75000                   | 51,0 | 81,9                    | 9,81        |
| 75000                   | 57,4 | 72,8                    | 8,72        |
| 75000                   | 64,7 | 64,5                    | 7,73        |
| 75000                   | 73,8 | 56,6                    | 6,78        |
| 75000                   | 78,3 | 53,3                    | 6,39        |
| 75000                   | 88,8 | 47,1                    | 5,63        |

P3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 65800                   | 31,4 | 117                     | 15,9        |
| 65800                   | 36,4 | 101                     | 13,7        |
| 65800                   | 40,2 | 91,0                    | 12,4        |
| 65800                   | 44,7 | 82,0                    | 11,2        |
| 65800                   | 49,8 | 73,5                    | 10,0        |
| 65800                   | 54,9 | 66,7                    | 9,10        |
| 65800                   | 60,9 | 60,1                    | 8,21        |
| 65800                   | 71,9 | 50,9                    | 6,95        |
| 65800                   | 81,1 | 45,2                    | 6,17        |
| 65800                   | 90,8 | 40,3                    | 5,51        |
| 65800                   | 102  | 36,0                    | 4,91        |
| 65800                   | 108  | 33,8                    | 4,62        |

P3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 92900                   | 27,3 | 190                     | 18,3        |
| 92900                   | 31,4 | 164                     | 15,9        |
| 92900                   | 36,4 | 142                     | 13,7        |
| 92900                   | 40,3 | 128                     | 12,4        |
| 92900                   | 44,7 | 116                     | 11,2        |
| 92900                   | 49,9 | 104                     | 10,0        |
| 92900                   | 56,0 | 92,4                    | 8,94        |
| 92900                   | 63,2 | 81,9                    | 7,92        |
| 92900                   | 71,1 | 72,8                    | 7,03        |
| 92900                   | 80,2 | 64,5                    | 6,24        |
| 92900                   | 91,5 | 56,6                    | 5,47        |
| 92900                   | 97,0 | 53,3                    | 5,15        |
| 92900                   | 110  | 47,0                    | 4,55        |

## 19.6 PC GEAR REDUCER - 500 rpm

## P4C 216

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 18500                   | 102 | 10,4                    | 4,92                    |
| 18500                   | 115 | 9,13                    | 4,34                    |
| 18500                   | 126 | 8,37                    | 3,98                    |
| 18500                   | 144 | 7,31                    | 3,47                    |
| 18500                   | 158 | 6,65                    | 3,16                    |
| 18500                   | 175 | 6,03                    | 2,86                    |
| 18500                   | 194 | 5,43                    | 2,58                    |
| 18500                   | 229 | 4,60                    | 2,19                    |
| 18500                   | 258 | 4,08                    | 1,94                    |
| 18500                   | 289 | 3,65                    | 1,73                    |
| 18500                   | 305 | 3,45                    | 1,64                    |
| 16700                   | 344 | 2,76                    | 1,45                    |

## P4C 266

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 30400                   | 101 | 17,1                    | 4,94                    |
| 30400                   | 115 | 15,0                    | 4,34                    |
| 30400                   | 126 | 13,7                    | 3,97                    |
| 30400                   | 138 | 12,5                    | 3,62                    |
| 30400                   | 160 | 10,8                    | 3,13                    |
| 30400                   | 177 | 9,78                    | 2,82                    |
| 30400                   | 197 | 8,79                    | 2,54                    |
| 30400                   | 221 | 7,84                    | 2,27                    |
| 30400                   | 249 | 6,95                    | 2,01                    |
| 30400                   | 282 | 6,13                    | 1,77                    |
| 30400                   | 319 | 5,43                    | 1,57                    |
| 30400                   | 351 | 4,93                    | 1,42                    |

## P4C 316

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 52500                   | 104 | 28,8                    | 4,82                    |
| 52500                   | 112 | 26,6                    | 4,45                    |
| 52500                   | 128 | 23,4                    | 3,92                    |
| 52500                   | 139 | 21,5                    | 3,59                    |
| 52500                   | 159 | 18,7                    | 3,14                    |
| 52500                   | 175 | 17,0                    | 2,85                    |
| 52500                   | 204 | 14,6                    | 2,45                    |
| 52500                   | 227 | 13,1                    | 2,20                    |
| 52500                   | 255 | 11,7                    | 1,96                    |
| 52500                   | 289 | 10,3                    | 1,73                    |
| 52500                   | 319 | 9,37                    | 1,57                    |
| 52500                   | 361 | 8,26                    | 1,38                    |

## P4C 246

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 23200                   | 128 | 10,3                    | 3,90                    |
| 23200                   | 145 | 9,08                    | 3,44                    |
| 23200                   | 159 | 8,32                    | 3,15                    |
| 23200                   | 182 | 7,26                    | 2,75                    |
| 23200                   | 200 | 6,61                    | 2,51                    |
| 23200                   | 220 | 5,99                    | 2,27                    |
| 23200                   | 244 | 5,40                    | 2,05                    |
| 23200                   | 288 | 4,58                    | 1,73                    |
| 23200                   | 325 | 4,06                    | 1,54                    |
| 23200                   | 364 | 3,62                    | 1,37                    |
| 23200                   | 385 | 3,43                    | 1,30                    |
| 21600                   | 434 | 2,83                    | 1,15                    |

## P4C 276

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 37700                   | 127 | 16,9                    | 3,94                    |
| 37700                   | 145 | 14,8                    | 3,46                    |
| 37700                   | 158 | 13,6                    | 3,16                    |
| 37700                   | 173 | 12,4                    | 2,88                    |
| 37700                   | 200 | 10,7                    | 2,49                    |
| 37700                   | 222 | 9,66                    | 2,25                    |
| 37700                   | 247 | 8,68                    | 2,02                    |
| 37700                   | 277 | 7,75                    | 1,81                    |
| 37700                   | 312 | 6,86                    | 1,60                    |
| 37700                   | 354 | 6,06                    | 1,41                    |
| 37700                   | 399 | 5,37                    | 1,25                    |
| 36500                   | 440 | 4,71                    | 1,14                    |

## P4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 66500                   | 132 | 28,7                    | 3,79                    |
| 66500                   | 143 | 26,5                    | 3,50                    |
| 66500                   | 162 | 23,3                    | 3,08                    |
| 66500                   | 177 | 21,4                    | 2,83                    |
| 66500                   | 203 | 18,7                    | 2,47                    |
| 66500                   | 223 | 17,0                    | 2,24                    |
| 66500                   | 259 | 14,6                    | 1,93                    |
| 66500                   | 289 | 13,1                    | 1,73                    |
| 66500                   | 324 | 11,7                    | 1,54                    |
| 66500                   | 367 | 10,3                    | 1,36                    |
| 66500                   | 405 | 9,33                    | 1,23                    |
| 66500                   | 460 | 8,23                    | 1,09                    |

## 19.6 PC GEAR REDUCER - 500 rpm

## P4C 396

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 77300                   | 103 | 42,6                    | 4,85                    |
| 77300                   | 118 | 37,2                    | 4,23                    |
| 77300                   | 129 | 34,0                    | 3,86                    |
| 77300                   | 142 | 31,0                    | 3,52                    |
| 77300                   | 164 | 26,8                    | 3,05                    |
| 77300                   | 182 | 24,2                    | 2,75                    |
| 77300                   | 202 | 21,8                    | 2,47                    |
| 77300                   | 226 | 19,4                    | 2,21                    |
| 77300                   | 256 | 17,2                    | 1,96                    |
| 77300                   | 287 | 15,3                    | 1,74                    |
| 77300                   | 320 | 13,7                    | 1,56                    |
| 77300                   | 361 | 12,2                    | 1,39                    |

## P4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 96300                   | 128 | 42,9                    | 3,91                    |
| 96300                   | 147 | 37,4                    | 3,41                    |
| 96300                   | 160 | 34,2                    | 3,12                    |
| 96300                   | 176 | 31,1                    | 2,84                    |
| 96300                   | 203 | 26,9                    | 2,46                    |
| 96300                   | 225 | 24,3                    | 2,22                    |
| 96300                   | 251 | 21,9                    | 2,00                    |
| 96300                   | 281 | 19,5                    | 1,78                    |
| 96300                   | 317 | 17,3                    | 1,58                    |
| 96300                   | 356 | 15,4                    | 1,41                    |
| 96300                   | 397 | 13,8                    | 1,26                    |
| 96300                   | 447 | 12,2                    | 1,12                    |

## 20.1 BC GEAR REDUCER - 1750 rpm

## B2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 6770                    | 5,01 | 258                     | 350                     |
| 6770                    | 5,49 | 235                     | 319                     |
| 6770                    | 6,39 | 202                     | 274                     |
| 6770                    | 7,06 | 183                     | 248                     |
| 6770                    | 7,66 | 169                     | 229                     |
| 6770                    | 8,82 | 147                     | 198                     |
| 6770                    | 10,1 | 128                     | 173                     |
| 6770                    | 10,9 | 118                     | 160                     |

## B2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13700                   | 4,87 | 537                     | 360                     |
| 13700                   | 5,33 | 490                     | 328                     |
| 13700                   | 6,21 | 421                     | 282                     |
| 13700                   | 6,86 | 381                     | 255                     |
| 13700                   | 7,88 | 331                     | 222                     |
| 13700                   | 8,57 | 305                     | 204                     |
| 13700                   | 9,82 | 266                     | 178                     |
| 13700                   | 10,6 | 246                     | 165                     |

## B2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 21500                   | 5,00 | 822                     | 350                     |
| 21500                   | 5,48 | 749                     | 319                     |
| 21500                   | 6,38 | 644                     | 274                     |
| 21500                   | 7,05 | 583                     | 248                     |
| 21500                   | 8,10 | 507                     | 216                     |
| 21500                   | 8,81 | 466                     | 199                     |
| 21500                   | 10,1 | 407                     | 173                     |
| 21500                   | 10,9 | 377                     | 160                     |

## B2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 33100                   | 4,90 | 1290                    | 357                     |
| 34600                   | 5,53 | 1190                    | 316                     |
| 36100                   | 6,30 | 1100                    | 278                     |
| 37700                   | 7,04 | 1020                    | 249                     |
| 38900                   | 7,99 | 928                     | 219                     |
| 38900                   | 8,69 | 854                     | 201                     |
| 38900                   | 9,97 | 745                     | 176                     |
| 38900                   | 10,8 | 689                     | 163                     |

## B2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8640                    | 6,21 | 266                     | 282                     |
| 8640                    | 6,80 | 242                     | 257                     |
| 8640                    | 7,92 | 208                     | 221                     |
| 8640                    | 8,75 | 189                     | 200                     |
| 8640                    | 9,49 | 174                     | 184                     |
| 8640                    | 10,9 | 151                     | 160                     |
| 8640                    | 12,5 | 132                     | 140                     |
| 8640                    | 13,5 | 122                     | 129                     |

## B2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17100                   | 6,14 | 533                     | 285                     |
| 17100                   | 6,73 | 486                     | 260                     |
| 17100                   | 7,83 | 418                     | 224                     |
| 17100                   | 8,65 | 378                     | 202                     |
| 17100                   | 9,94 | 329                     | 176                     |
| 17100                   | 10,8 | 303                     | 162                     |
| 17100                   | 12,4 | 264                     | 141                     |
| 17100                   | 13,4 | 244                     | 131                     |

## B2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27400                   | 6,27 | 833                     | 279                     |
| 27400                   | 6,88 | 760                     | 255                     |
| 27400                   | 8,00 | 653                     | 219                     |
| 27400                   | 8,84 | 591                     | 198                     |
| 27400                   | 10,2 | 514                     | 172                     |
| 27400                   | 11,0 | 473                     | 158                     |
| 27400                   | 12,7 | 412                     | 138                     |
| 27400                   | 13,7 | 382                     | 128                     |

## B2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 42300                   | 6,23 | 1300                    | 281                     |
| 43800                   | 7,04 | 1190                    | 249                     |
| 45400                   | 8,01 | 1080                    | 219                     |
| 46900                   | 8,95 | 1000                    | 196                     |
| 47700                   | 10,2 | 896                     | 172                     |
| 47700                   | 11,1 | 824                     | 158                     |
| 47700                   | 12,7 | 719                     | 138                     |
| 47700                   | 13,7 | 665                     | 128                     |

## 20.1 BC GEAR REDUCER - 1750 rpm

B2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49400                   | 4,97 | 1900                    | 352                     |
| 50100                   | 5,61 | 1700                    | 312                     |
| 53100                   | 6,39 | 1590                    | 274                     |
| 54600                   | 7,14 | 1460                    | 245                     |
| 57600                   | 8,11 | 1360                    | 216                     |
| 58400                   | 8,82 | 1260                    | 198                     |
| 58400                   | 10,1 | 1100                    | 173                     |
| 58400                   | 10,9 | 1020                    | 160                     |

B2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 61300                   | 6,16 | 1900                    | 284                     |
| 62900                   | 6,96 | 1720                    | 252                     |
| 65900                   | 7,92 | 1590                    | 221                     |
| 68100                   | 8,85 | 1470                    | 198                     |
| 71100                   | 10,0 | 1350                    | 174                     |
| 72700                   | 10,9 | 1270                    | 160                     |
| 72700                   | 12,5 | 1110                    | 140                     |
| 72700                   | 13,5 | 1030                    | 129                     |

## 20.1 BC GEAR REDUCER - 1750 rpm

## B3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7140                    | 12,7 | 110                     | 138                     |
| 7450                    | 14,0 | 104                     | 125                     |
| 7980                    | 15,8 | 98,2                    | 111                     |
| 8590                    | 17,4 | 96,2                    | 101                     |
| 8820                    | 19,6 | 87,5                    | 89,1                    |
| 8820                    | 22,0 | 78,3                    | 79,7                    |
| 8820                    | 25,4 | 67,6                    | 68,8                    |
| 8820                    | 27,9 | 61,6                    | 62,8                    |
| 8820                    | 30,2 | 56,8                    | 57,9                    |
| 8820                    | 34,8 | 49,3                    | 50,2                    |
| 8820                    | 39,6 | 43,5                    | 44,2                    |
| 8820                    | 43,1 | 39,8                    | 40,6                    |
| 8820                    | 49,1 | 35,0                    | 35,6                    |
| 8820                    | 55,2 | 31,1                    | 31,7                    |
| 8660                    | 60,9 | 27,7                    | 28,7                    |
| 8360                    | 69,4 | 23,5                    | 25,2                    |

## B3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12900                   | 12,4 | 203                     | 141                     |
| 13800                   | 13,5 | 200                     | 129                     |
| 15000                   | 16,3 | 180                     | 108                     |
| 16000                   | 17,7 | 177                     | 98,9                    |
| 16500                   | 19,9 | 161                     | 87,7                    |
| 16500                   | 22,1 | 145                     | 79,0                    |
| 16500                   | 25,4 | 126                     | 68,8                    |
| 16500                   | 28,1 | 114                     | 62,2                    |
| 16500                   | 30,5 | 105                     | 57,4                    |
| 16500                   | 35,1 | 91,5                    | 49,8                    |
| 16500                   | 39,9 | 80,6                    | 43,9                    |
| 16500                   | 43,5 | 73,9                    | 40,2                    |
| 16500                   | 49,6 | 64,9                    | 35,3                    |
| 16500                   | 55,7 | 57,7                    | 31,4                    |
| 16300                   | 61,4 | 51,6                    | 28,5                    |
| 15200                   | 70,0 | 42,3                    | 25,0                    |

## B3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 21300                   | 12,6 | 330                     | 139                     |
| 22400                   | 14,1 | 309                     | 124                     |
| 23600                   | 16,0 | 288                     | 110                     |
| 25800                   | 18,0 | 280                     | 97,4                    |
| 27100                   | 20,3 | 261                     | 86,4                    |
| 27100                   | 22,2 | 238                     | 78,8                    |
| 27100                   | 25,8 | 205                     | 67,7                    |
| 27100                   | 28,6 | 185                     | 61,3                    |
| 27100                   | 31,0 | 171                     | 56,5                    |
| 27100                   | 35,7 | 148                     | 49,0                    |
| 27100                   | 40,9 | 129                     | 42,8                    |
| 27100                   | 44,2 | 120                     | 39,6                    |
| 27100                   | 50,3 | 105                     | 34,8                    |
| 27100                   | 56,6 | 93,5                    | 30,9                    |
| 27100                   | 62,4 | 84,8                    | 28,0                    |
| 25800                   | 71,1 | 70,8                    | 24,6                    |

## B3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9120                    | 15,8 | 112                     | 111                     |
| 9580                    | 17,3 | 108                     | 101                     |
| 10000                   | 19,7 | 99,1                    | 88,7                    |
| 10800                   | 21,6 | 97,5                    | 81,1                    |
| 11800                   | 24,3 | 94,3                    | 71,9                    |
| 11800                   | 27,2 | 84,4                    | 64,3                    |
| 11800                   | 31,5 | 72,9                    | 55,5                    |
| 11800                   | 34,6 | 66,5                    | 50,6                    |
| 11800                   | 37,5 | 61,3                    | 46,7                    |
| 11800                   | 43,2 | 53,2                    | 40,5                    |
| 11800                   | 49,0 | 46,8                    | 35,7                    |
| 11800                   | 53,5 | 42,9                    | 32,7                    |
| 11800                   | 60,9 | 37,7                    | 28,7                    |
| 11800                   | 68,5 | 33,5                    | 25,6                    |
| 10600                   | 75,5 | 27,5                    | 23,2                    |
| 10600                   | 86,0 | 24,1                    | 20,3                    |

## B3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16300                   | 15,8 | 202                     | 111                     |
| 17600                   | 17,0 | 201                     | 103                     |
| 19000                   | 20,6 | 179                     | 84,8                    |
| 20100                   | 22,3 | 176                     | 78,4                    |
| 20700                   | 25,2 | 160                     | 69,6                    |
| 20700                   | 27,9 | 144                     | 62,7                    |
| 20700                   | 32,1 | 126                     | 54,5                    |
| 20700                   | 35,5 | 114                     | 49,3                    |
| 20700                   | 38,5 | 105                     | 45,5                    |
| 20700                   | 44,3 | 91,0                    | 39,5                    |
| 20700                   | 50,3 | 80,1                    | 34,8                    |
| 20700                   | 54,9 | 73,4                    | 31,9                    |
| 20700                   | 62,5 | 64,5                    | 28,0                    |
| 20700                   | 70,3 | 57,4                    | 24,9                    |
| 20400                   | 77,5 | 51,4                    | 22,6                    |
| 19200                   | 88,3 | 42,3                    | 19,8                    |

## B3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 27100                   | 15,7 | 336                     | 112                     |
| 28500                   | 17,7 | 313                     | 98,7                    |
| 29900                   | 19,9 | 292                     | 87,8                    |
| 31800                   | 22,5 | 275                     | 77,7                    |
| 33300                   | 25,4 | 255                     | 68,9                    |
| 33300                   | 27,8 | 233                     | 62,9                    |
| 33300                   | 32,4 | 200                     | 54,0                    |
| 33300                   | 35,8 | 181                     | 48,9                    |
| 33300                   | 38,8 | 167                     | 45,0                    |
| 33300                   | 44,7 | 145                     | 39,1                    |
| 33300                   | 51,3 | 127                     | 34,1                    |
| 33300                   | 55,4 | 117                     | 31,6                    |
| 33300                   | 63,1 | 103                     | 27,7                    |
| 33300                   | 71,0 | 91,5                    | 24,7                    |
| 33300                   | 78,2 | 83,0                    | 22,4                    |
| 32700                   | 89,1 | 71,5                    | 19,6                    |

B3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39800                   | 12,3 | 629                     | 142                     |
| 43100                   | 13,8 | 608                     | 127                     |
| 45500                   | 15,5 | 572                     | 113                     |
| 47100                   | 17,4 | 528                     | 101                     |
| 48300                   | 19,7 | 476                     | 88,6                    |
| 48300                   | 21,6 | 435                     | 80,9                    |
| 48300                   | 25,2 | 374                     | 69,5                    |
| 48300                   | 27,8 | 338                     | 62,9                    |
| 48300                   | 32,0 | 294                     | 54,7                    |
| 48300                   | 34,8 | 271                     | 50,3                    |
| 48300                   | 39,9 | 236                     | 43,9                    |
| 48300                   | 43,1 | 218                     | 40,6                    |
| 48300                   | 49,1 | 192                     | 35,7                    |
| 48300                   | 55,2 | 171                     | 31,7                    |
| 48300                   | 60,8 | 155                     | 28,8                    |
| 45600                   | 69,3 | 128                     | 25,3                    |

B3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 50400                   | 15,9 | 618                     | 110                     |
| 52800                   | 17,6 | 586                     | 99,6                    |
| 55300                   | 20,0 | 539                     | 87,5                    |
| 57500                   | 22,1 | 506                     | 79,1                    |
| 58700                   | 25,1 | 456                     | 69,7                    |
| 58700                   | 27,5 | 416                     | 63,6                    |
| 58700                   | 32,0 | 357                     | 54,7                    |
| 58700                   | 35,4 | 323                     | 49,4                    |
| 58700                   | 40,7 | 281                     | 43,0                    |
| 58700                   | 44,2 | 259                     | 39,6                    |
| 58700                   | 50,7 | 226                     | 34,5                    |
| 58700                   | 54,8 | 209                     | 32,0                    |

B3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 60400                   | 12,5 | 944                     | 140                     |
| 62000                   | 13,7 | 881                     | 128                     |
| 63700                   | 16,4 | 759                     | 107                     |
| 65900                   | 18,0 | 714                     | 97,3                    |
| 68900                   | 20,3 | 663                     | 86,3                    |
| 68900                   | 22,2 | 605                     | 78,7                    |
| 68900                   | 25,9 | 520                     | 67,7                    |
| 68900                   | 28,6 | 470                     | 61,2                    |
| 68900                   | 32,8 | 409                     | 53,3                    |
| 68900                   | 35,7 | 376                     | 49,0                    |
| 68900                   | 40,9 | 328                     | 42,7                    |
| 68900                   | 44,2 | 304                     | 39,6                    |
| 68900                   | 50,4 | 267                     | 34,7                    |
| 68900                   | 56,6 | 237                     | 30,9                    |
| 58700                   | 62,4 | 183                     | 28,1                    |
| 68900                   | 62,4 | 215                     | 28,0                    |
| 58700                   | 70,1 | 163                     | 25,0                    |
| 68900                   | 71,2 | 189                     | 24,6                    |
| 58700                   | 77,3 | 148                     | 22,6                    |
| 57000                   | 88,1 | 126                     | 19,9                    |

B3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 75500                   | 15,6 | 947                     | 113                     |
| 77500                   | 17,0 | 889                     | 103                     |
| 79800                   | 20,4 | 763                     | 85,9                    |
| 82100                   | 22,3 | 718                     | 78,5                    |
| 85900                   | 25,1 | 666                     | 69,6                    |
| 85900                   | 27,5 | 608                     | 63,5                    |
| 85900                   | 32,1 | 522                     | 54,6                    |
| 85900                   | 35,4 | 473                     | 49,4                    |
| 85900                   | 40,7 | 411                     | 43,0                    |
| 85900                   | 44,3 | 378                     | 39,5                    |
| 85900                   | 50,7 | 330                     | 34,5                    |
| 85900                   | 54,8 | 305                     | 31,9                    |
| 85900                   | 62,4 | 268                     | 28,0                    |
| 85900                   | 70,2 | 238                     | 24,9                    |
| 85900                   | 77,4 | 216                     | 22,6                    |
| 85900                   | 88,2 | 190                     | 19,8                    |

B4C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 8820                    | 77,6 | 22,6                    | 22,6        |
| 8820                    | 86,7 | 20,2                    | 20,2        |
| 8820                    | 100  | 17,5                    | 17,4        |
| 8820                    | 110  | 15,9                    | 15,9        |
| 8820                    | 119  | 14,7                    | 14,6        |
| 8820                    | 138  | 12,8                    | 12,7        |
| 8820                    | 156  | 11,2                    | 11,2        |
| 8820                    | 170  | 10,3                    | 10,3        |
| 8820                    | 194  | 9,05                    | 9,02        |
| 8820                    | 218  | 8,05                    | 8,02        |
| 8820                    | 241  | 7,30                    | 7,27        |
| 8820                    | 274  | 6,41                    | 6,38        |
| 8510                    | 302  | 5,61                    | 5,79        |

B4C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 16500                   | 79,3 | 41,4                    | 22,1        |
| 16500                   | 88,6 | 37,1                    | 19,8        |
| 16500                   | 103  | 32,0                    | 17,1        |
| 16500                   | 112  | 29,2                    | 15,6        |
| 16500                   | 122  | 26,9                    | 14,3        |
| 16500                   | 141  | 23,4                    | 12,5        |
| 16500                   | 160  | 20,6                    | 11,0        |
| 16500                   | 174  | 18,9                    | 10,1        |
| 16500                   | 198  | 16,6                    | 8,83        |
| 16500                   | 223  | 14,7                    | 7,85        |
| 16500                   | 246  | 13,4                    | 7,12        |
| 16500                   | 280  | 11,7                    | 6,25        |
| 15600                   | 309  | 10,1                    | 5,67        |

B4C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 27100                   | 79,5 | 68,0                    | 22,0        |
| 27100                   | 88,8 | 60,8                    | 19,7        |
| 27100                   | 103  | 52,5                    | 17,0        |
| 27100                   | 113  | 47,9                    | 15,5        |
| 27100                   | 122  | 44,2                    | 14,3        |
| 27100                   | 141  | 38,3                    | 12,4        |
| 27100                   | 160  | 33,8                    | 10,9        |
| 27100                   | 175  | 31,0                    | 10,0        |
| 27100                   | 199  | 27,2                    | 8,80        |
| 27100                   | 224  | 24,2                    | 7,83        |
| 27100                   | 246  | 21,9                    | 7,10        |
| 26800                   | 281  | 19,0                    | 6,23        |
| 25800                   | 310  | 16,6                    | 5,65        |

B4C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 11800                   | 96,2 | 24,4                    | 18,2        |
| 11800                   | 107  | 21,8                    | 16,3        |
| 11800                   | 124  | 18,9                    | 14,1        |
| 11800                   | 136  | 17,2                    | 12,8        |
| 11800                   | 148  | 15,8                    | 11,8        |
| 11800                   | 171  | 13,8                    | 10,3        |
| 11800                   | 194  | 12,1                    | 9,04        |
| 11800                   | 211  | 11,1                    | 8,28        |
| 11800                   | 241  | 9,75                    | 7,27        |
| 11800                   | 270  | 8,68                    | 6,47        |
| 11800                   | 298  | 7,87                    | 5,87        |
| 11800                   | 340  | 6,91                    | 5,15        |
| 11000                   | 374  | 5,86                    | 4,67        |

B4C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 20700                   | 99,9 | 41,2                    | 17,5        |
| 20700                   | 112  | 36,9                    | 15,7        |
| 20700                   | 129  | 31,8                    | 13,5        |
| 20700                   | 142  | 29,0                    | 12,3        |
| 20700                   | 154  | 26,8                    | 11,4        |
| 20700                   | 177  | 23,2                    | 9,88        |
| 20700                   | 201  | 20,5                    | 8,70        |
| 20700                   | 220  | 18,8                    | 7,97        |
| 20700                   | 250  | 16,5                    | 7,00        |
| 20700                   | 281  | 14,7                    | 6,23        |
| 20700                   | 310  | 13,3                    | 5,65        |
| 20100                   | 353  | 11,4                    | 4,96        |
| 19400                   | 389  | 9,92                    | 4,50        |

B4C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 33600                   | 99,7 | 67,1                    | 17,6        |
| 33600                   | 111  | 60,1                    | 15,7        |
| 33600                   | 129  | 51,9                    | 13,6        |
| 33600                   | 141  | 47,3                    | 12,4        |
| 33600                   | 153  | 43,6                    | 11,4        |
| 33600                   | 177  | 37,9                    | 9,90        |
| 33600                   | 201  | 33,3                    | 8,72        |
| 33600                   | 219  | 30,6                    | 7,99        |
| 33600                   | 249  | 26,8                    | 7,02        |
| 33600                   | 280  | 23,9                    | 6,24        |
| 33600                   | 309  | 21,7                    | 5,66        |
| 33600                   | 352  | 19,0                    | 4,97        |
| 32700                   | 388  | 16,8                    | 4,51        |

B4C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 46800                   | 80,9 | 115                     | 21,6        |
| 46800                   | 89,9 | 104                     | 19,5        |
| 46800                   | 103  | 90,3                    | 16,9        |
| 46800                   | 114  | 81,7                    | 15,3        |
| 46800                   | 124  | 75,3                    | 14,1        |
| 46800                   | 143  | 65,4                    | 12,3        |
| 46800                   | 162  | 57,6                    | 10,8        |
| 46800                   | 177  | 52,8                    | 9,91        |
| 46800                   | 201  | 46,4                    | 8,70        |
| 46800                   | 226  | 41,2                    | 7,74        |
| 46800                   | 249  | 37,4                    | 7,02        |
| 46800                   | 284  | 32,8                    | 6,16        |
| 45600                   | 313  | 29,0                    | 5,59        |

B4C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 68900                   | 82,1 | 167                     | 21,3        |
| 68900                   | 90,0 | 153                     | 19,4        |
| 68900                   | 105  | 131                     | 16,7        |
| 68900                   | 116  | 119                     | 15,1        |
| 68900                   | 126  | 109                     | 13,9        |
| 68900                   | 145  | 94,9                    | 12,1        |
| 68900                   | 166  | 82,8                    | 10,6        |
| 68900                   | 179  | 76,6                    | 9,77        |
| 68900                   | 204  | 67,3                    | 8,58        |
| 68900                   | 230  | 59,7                    | 7,61        |
| 68900                   | 253  | 54,3                    | 6,92        |
| 68900                   | 288  | 47,6                    | 6,07        |
| 68900                   | 318  | 43,2                    | 5,51        |

B4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 59300                   | 103 | 115                     | 17,0        |
| 59300                   | 114 | 103                     | 15,3        |
| 59300                   | 131 | 89,9                    | 13,3        |
| 59300                   | 145 | 81,4                    | 12,1        |
| 59300                   | 157 | 75,0                    | 11,1        |
| 59300                   | 181 | 65,1                    | 9,65        |
| 59300                   | 206 | 57,4                    | 8,50        |
| 59300                   | 225 | 52,6                    | 7,79        |
| 59300                   | 256 | 46,2                    | 6,84        |
| 59300                   | 287 | 41,1                    | 6,09        |
| 59300                   | 317 | 37,2                    | 5,52        |
| 59300                   | 361 | 32,7                    | 4,84        |
| 57000                   | 398 | 28,5                    | 4,40        |

B4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 85900                   | 102 | 168                     | 17,2        |
| 85900                   | 112 | 153                     | 15,7        |
| 85900                   | 130 | 132                     | 13,5        |
| 85900                   | 143 | 119                     | 12,2        |
| 85900                   | 156 | 110                     | 11,2        |
| 85900                   | 179 | 95,4                    | 9,76        |
| 85900                   | 205 | 83,2                    | 8,52        |
| 85900                   | 222 | 77,0                    | 7,88        |
| 85900                   | 253 | 67,6                    | 6,92        |
| 85900                   | 284 | 60,2                    | 6,16        |
| 85900                   | 313 | 54,6                    | 5,58        |
| 85900                   | 357 | 47,9                    | 4,90        |
| 85900                   | 394 | 43,5                    | 4,45        |

## 20.2 BC GEAR REDUCER - 1400 rpm

## B2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7520                    | 5,01 | 229                     | 280                     |
| 7520                    | 5,49 | 209                     | 255                     |
| 7520                    | 6,39 | 180                     | 219                     |
| 7520                    | 7,06 | 163                     | 198                     |
| 7520                    | 7,66 | 150                     | 183                     |
| 7520                    | 8,82 | 130                     | 159                     |
| 7520                    | 10,1 | 114                     | 139                     |
| 7520                    | 10,9 | 105                     | 128                     |

## B2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15200                   | 4,87 | 477                     | 288                     |
| 15200                   | 5,33 | 435                     | 263                     |
| 15200                   | 6,21 | 374                     | 226                     |
| 15200                   | 6,86 | 338                     | 204                     |
| 15200                   | 7,88 | 295                     | 178                     |
| 15200                   | 8,57 | 271                     | 163                     |
| 15200                   | 9,82 | 236                     | 143                     |
| 15200                   | 10,6 | 219                     | 132                     |

## B2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23900                   | 5,00 | 730                     | 280                     |
| 23900                   | 5,48 | 666                     | 255                     |
| 23900                   | 6,38 | 572                     | 219                     |
| 23900                   | 7,05 | 518                     | 198                     |
| 23900                   | 8,10 | 451                     | 173                     |
| 23900                   | 8,81 | 415                     | 159                     |
| 23900                   | 10,1 | 362                     | 139                     |
| 23900                   | 10,9 | 335                     | 128                     |

## B2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36800                   | 4,90 | 1150                    | 286                     |
| 38500                   | 5,53 | 1060                    | 253                     |
| 40200                   | 6,30 | 974                     | 222                     |
| 41900                   | 7,04 | 910                     | 199                     |
| 43200                   | 7,99 | 825                     | 175                     |
| 43200                   | 8,69 | 759                     | 161                     |
| 43200                   | 9,97 | 662                     | 140                     |
| 43200                   | 10,8 | 613                     | 130                     |

## B2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9600                    | 6,21 | 236                     | 226                     |
| 9600                    | 6,80 | 216                     | 206                     |
| 9600                    | 7,92 | 185                     | 177                     |
| 9600                    | 8,75 | 168                     | 160                     |
| 9600                    | 9,49 | 154                     | 148                     |
| 9600                    | 10,9 | 134                     | 128                     |
| 9600                    | 12,5 | 117                     | 112                     |
| 9600                    | 13,5 | 108                     | 103                     |

## B2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19000                   | 6,14 | 474                     | 228                     |
| 19000                   | 6,73 | 432                     | 208                     |
| 19000                   | 7,83 | 372                     | 179                     |
| 19000                   | 8,65 | 336                     | 162                     |
| 19000                   | 9,94 | 293                     | 141                     |
| 19000                   | 10,8 | 269                     | 130                     |
| 19000                   | 12,4 | 235                     | 113                     |
| 19000                   | 13,4 | 217                     | 105                     |

## B2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30400                   | 6,27 | 740                     | 223                     |
| 30400                   | 6,88 | 675                     | 204                     |
| 30400                   | 8,00 | 580                     | 175                     |
| 30400                   | 8,84 | 525                     | 158                     |
| 30400                   | 10,2 | 457                     | 138                     |
| 30400                   | 11,0 | 420                     | 127                     |
| 30400                   | 12,7 | 367                     | 111                     |
| 30400                   | 13,7 | 339                     | 102                     |

## B2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 47000                   | 6,23 | 1150                    | 225                     |
| 48700                   | 7,04 | 1060                    | 199                     |
| 50500                   | 8,01 | 963                     | 175                     |
| 52200                   | 8,95 | 890                     | 156                     |
| 53000                   | 10,2 | 797                     | 138                     |
| 53000                   | 11,1 | 733                     | 127                     |
| 53000                   | 12,7 | 639                     | 110                     |
| 53000                   | 13,7 | 592                     | 102                     |

## 20.2 BC GEAR REDUCER - 1400 rpm

B2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 54900                   | 4,97 | 1690                    | 282                     |
| 55700                   | 5,61 | 1510                    | 249                     |
| 59000                   | 6,39 | 1410                    | 219                     |
| 60700                   | 7,14 | 1300                    | 196                     |
| 64000                   | 8,11 | 1210                    | 173                     |
| 64900                   | 8,82 | 1120                    | 159                     |
| 64900                   | 10,1 | 980                     | 139                     |
| 64900                   | 10,9 | 907                     | 128                     |

B2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 68200                   | 6,16 | 1690                    | 227                     |
| 69800                   | 6,96 | 1530                    | 201                     |
| 73200                   | 7,92 | 1410                    | 177                     |
| 75700                   | 8,85 | 1310                    | 158                     |
| 79000                   | 10,0 | 1200                    | 139                     |
| 80800                   | 10,9 | 1130                    | 128                     |
| 80800                   | 12,5 | 985                     | 112                     |
| 80800                   | 13,5 | 911                     | 103                     |

## 20.2 BC GEAR REDUCER - 1400 rpm

## B3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7520                    | 12,7 | 92,3                    | 110                     |
| 7840                    | 14,0 | 87,6                    | 100                     |
| 8400                    | 15,8 | 82,7                    | 88,4                    |
| 9040                    | 17,4 | 81,0                    | 80,4                    |
| 9280                    | 19,6 | 73,7                    | 71,3                    |
| 9280                    | 22,0 | 65,9                    | 63,8                    |
| 9280                    | 25,4 | 56,9                    | 55,1                    |
| 9280                    | 27,9 | 51,9                    | 50,2                    |
| 9280                    | 30,2 | 47,9                    | 46,3                    |
| 9280                    | 34,8 | 41,6                    | 40,2                    |
| 9280                    | 39,6 | 36,6                    | 35,4                    |
| 9280                    | 43,1 | 33,5                    | 32,4                    |
| 9280                    | 49,1 | 29,5                    | 28,5                    |
| 9280                    | 55,2 | 26,2                    | 25,3                    |
| 9120                    | 60,9 | 23,4                    | 23,0                    |
| 8800                    | 69,4 | 19,8                    | 20,2                    |

## B3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13600                   | 12,4 | 171                     | 113                     |
| 14600                   | 13,5 | 168                     | 104                     |
| 15800                   | 16,3 | 152                     | 86,0                    |
| 16900                   | 17,7 | 149                     | 79,1                    |
| 17400                   | 19,9 | 136                     | 70,2                    |
| 17400                   | 22,1 | 122                     | 63,2                    |
| 17400                   | 25,4 | 106                     | 55,0                    |
| 17400                   | 28,1 | 96,3                    | 49,8                    |
| 17400                   | 30,5 | 88,7                    | 45,9                    |
| 17400                   | 35,1 | 77,1                    | 39,9                    |
| 17400                   | 39,9 | 67,9                    | 35,1                    |
| 17400                   | 43,5 | 62,2                    | 32,2                    |
| 17400                   | 49,6 | 54,6                    | 28,2                    |
| 17400                   | 55,7 | 48,6                    | 25,1                    |
| 17100                   | 61,4 | 43,5                    | 22,8                    |
| 16000                   | 70,0 | 35,6                    | 20,0                    |

## B3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 22400                   | 12,6 | 278                     | 112                     |
| 23600                   | 14,1 | 260                     | 99,0                    |
| 24800                   | 16,0 | 242                     | 87,8                    |
| 27100                   | 18,0 | 235                     | 77,9                    |
| 28600                   | 20,3 | 220                     | 69,1                    |
| 28600                   | 22,2 | 201                     | 63,0                    |
| 28600                   | 25,8 | 172                     | 54,2                    |
| 28600                   | 28,6 | 156                     | 49,0                    |
| 28600                   | 31,0 | 144                     | 45,2                    |
| 28600                   | 35,7 | 125                     | 39,2                    |
| 28600                   | 40,9 | 109                     | 34,2                    |
| 28600                   | 44,2 | 101                     | 31,7                    |
| 28600                   | 50,3 | 88,5                    | 27,8                    |
| 28600                   | 56,6 | 78,7                    | 24,7                    |
| 28600                   | 62,4 | 71,4                    | 22,4                    |
| 27200                   | 71,1 | 59,7                    | 19,7                    |

## B3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9600                    | 15,8 | 94,6                    | 88,5                    |
| 10100                   | 17,3 | 90,8                    | 80,9                    |
| 10600                   | 19,7 | 83,5                    | 71,0                    |
| 11400                   | 21,6 | 82,1                    | 64,9                    |
| 12400                   | 24,3 | 79,4                    | 57,5                    |
| 12400                   | 27,2 | 71,1                    | 51,4                    |
| 12400                   | 31,5 | 61,4                    | 44,4                    |
| 12400                   | 34,6 | 56,0                    | 40,5                    |
| 12400                   | 37,5 | 51,6                    | 37,3                    |
| 12400                   | 43,2 | 44,8                    | 32,4                    |
| 12400                   | 49,0 | 39,4                    | 28,6                    |
| 12400                   | 53,5 | 36,2                    | 26,2                    |
| 12400                   | 60,9 | 31,8                    | 23,0                    |
| 12400                   | 68,5 | 28,2                    | 20,4                    |
| 11200                   | 75,5 | 23,1                    | 18,5                    |
| 11200                   | 86,0 | 20,3                    | 16,3                    |

## B3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17200                   | 15,8 | 170                     | 88,8                    |
| 18500                   | 17,0 | 169                     | 82,2                    |
| 20000                   | 20,6 | 151                     | 67,8                    |
| 21200                   | 22,3 | 148                     | 62,8                    |
| 21800                   | 25,2 | 135                     | 55,7                    |
| 21800                   | 27,9 | 122                     | 50,1                    |
| 21800                   | 32,1 | 106                     | 43,6                    |
| 21800                   | 35,5 | 95,7                    | 39,5                    |
| 21800                   | 38,5 | 88,2                    | 36,4                    |
| 21800                   | 44,3 | 76,6                    | 31,6                    |
| 21800                   | 50,3 | 67,5                    | 27,8                    |
| 21800                   | 54,9 | 61,8                    | 25,5                    |
| 21800                   | 62,5 | 54,3                    | 22,4                    |
| 21800                   | 70,3 | 48,3                    | 19,9                    |
| 21500                   | 77,5 | 43,3                    | 18,1                    |
| 20200                   | 88,3 | 35,6                    | 15,9                    |

## B3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 28500                   | 15,7 | 283                     | 89,2                    |
| 30000                   | 17,7 | 264                     | 79,0                    |
| 31400                   | 19,9 | 246                     | 70,2                    |
| 33400                   | 22,5 | 232                     | 62,2                    |
| 35000                   | 25,4 | 215                     | 55,1                    |
| 35000                   | 27,8 | 196                     | 50,3                    |
| 35000                   | 32,4 | 169                     | 43,2                    |
| 35000                   | 35,8 | 153                     | 39,1                    |
| 35000                   | 38,8 | 141                     | 36,0                    |
| 35000                   | 44,7 | 122                     | 31,3                    |
| 35000                   | 51,3 | 107                     | 27,3                    |
| 35000                   | 55,4 | 98,6                    | 25,3                    |
| 35000                   | 63,1 | 86,6                    | 22,2                    |
| 35000                   | 71,0 | 77,0                    | 19,7                    |
| 35000                   | 78,2 | 69,9                    | 17,9                    |
| 34400                   | 89,1 | 60,2                    | 15,7                    |

B3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 41900                   | 12,3 | 530                     | 114                     |
| 45400                   | 13,8 | 512                     | 101                     |
| 47900                   | 15,5 | 481                     | 90,2                    |
| 49600                   | 17,4 | 445                     | 80,5                    |
| 50800                   | 19,7 | 401                     | 70,9                    |
| 50800                   | 21,6 | 366                     | 64,7                    |
| 50800                   | 25,2 | 315                     | 55,6                    |
| 50800                   | 27,8 | 285                     | 50,3                    |
| 50800                   | 32,0 | 248                     | 43,8                    |
| 50800                   | 34,8 | 228                     | 40,3                    |
| 50800                   | 39,9 | 199                     | 35,1                    |
| 50800                   | 43,1 | 184                     | 32,5                    |
| 50800                   | 49,1 | 161                     | 28,5                    |
| 50800                   | 55,2 | 144                     | 25,4                    |
| 50800                   | 60,8 | 130                     | 23,0                    |
| 48000                   | 69,3 | 108                     | 20,2                    |

B3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 53000                   | 15,9 | 521                     | 88,1                    |
| 55600                   | 17,6 | 493                     | 79,7                    |
| 58200                   | 20,0 | 454                     | 70,0                    |
| 60500                   | 22,1 | 427                     | 63,3                    |
| 61800                   | 25,1 | 384                     | 55,8                    |
| 61800                   | 27,5 | 350                     | 50,9                    |
| 61800                   | 32,0 | 301                     | 43,7                    |
| 61800                   | 35,4 | 272                     | 39,6                    |
| 61800                   | 40,7 | 237                     | 34,4                    |
| 61800                   | 44,2 | 218                     | 31,7                    |
| 61800                   | 50,7 | 190                     | 27,6                    |
| 61800                   | 54,8 | 176                     | 25,6                    |

B3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 63600                   | 12,5 | 795                     | 112                     |
| 65300                   | 13,7 | 742                     | 102                     |
| 67000                   | 16,4 | 639                     | 85,6                    |
| 69400                   | 18,0 | 602                     | 77,9                    |
| 72600                   | 20,3 | 558                     | 69,0                    |
| 72600                   | 22,2 | 509                     | 63,0                    |
| 72600                   | 25,9 | 438                     | 54,1                    |
| 72600                   | 28,6 | 396                     | 49,0                    |
| 72600                   | 32,8 | 345                     | 42,6                    |
| 72600                   | 35,7 | 317                     | 39,2                    |
| 72600                   | 40,9 | 276                     | 34,2                    |
| 72600                   | 44,2 | 256                     | 31,6                    |
| 72600                   | 50,4 | 225                     | 27,8                    |
| 72600                   | 56,6 | 200                     | 24,7                    |
| 61800                   | 62,4 | 154                     | 22,4                    |
| 72600                   | 62,4 | 181                     | 22,4                    |
| 61800                   | 70,1 | 137                     | 20,0                    |
| 72600                   | 71,2 | 159                     | 19,7                    |
| 61800                   | 77,3 | 125                     | 18,1                    |
| 60000                   | 88,1 | 106                     | 15,9                    |

B3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 79500                   | 15,6 | 797                     | 90,0                    |
| 81600                   | 17,0 | 748                     | 82,3                    |
| 84000                   | 20,4 | 643                     | 68,7                    |
| 86400                   | 22,3 | 605                     | 62,8                    |
| 90400                   | 25,1 | 561                     | 55,7                    |
| 90400                   | 27,5 | 512                     | 50,8                    |
| 90400                   | 32,1 | 440                     | 43,7                    |
| 90400                   | 35,4 | 398                     | 39,5                    |
| 90400                   | 40,7 | 346                     | 34,4                    |
| 90400                   | 44,3 | 319                     | 31,6                    |
| 90400                   | 50,7 | 278                     | 27,6                    |
| 90400                   | 54,8 | 257                     | 25,5                    |
| 90400                   | 62,4 | 226                     | 22,4                    |
| 90400                   | 70,2 | 201                     | 19,9                    |
| 90400                   | 77,4 | 182                     | 18,1                    |
| 90400                   | 88,2 | 160                     | 15,9                    |

## 20.2 BC GEAR REDUCER - 1400 rpm

## B4C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9280                    | 77,6 | 19,1                    | 18,0                    |
| 9280                    | 86,7 | 17,1                    | 16,1                    |
| 9280                    | 100  | 14,7                    | 13,9                    |
| 9280                    | 110  | 13,4                    | 12,7                    |
| 9280                    | 119  | 12,4                    | 11,7                    |
| 9280                    | 138  | 10,7                    | 10,2                    |
| 9280                    | 156  | 9,47                    | 8,96                    |
| 9280                    | 170  | 8,68                    | 8,21                    |
| 9280                    | 194  | 7,62                    | 7,21                    |
| 9280                    | 218  | 6,78                    | 6,42                    |
| 9280                    | 241  | 6,15                    | 5,82                    |
| 9280                    | 274  | 5,39                    | 5,11                    |
| 8960                    | 302  | 4,73                    | 4,63                    |

## B4C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17400                   | 79,3 | 34,9                    | 17,7                    |
| 17400                   | 88,6 | 31,2                    | 15,8                    |
| 17400                   | 103  | 27,0                    | 13,6                    |
| 17400                   | 112  | 24,6                    | 12,4                    |
| 17400                   | 122  | 22,7                    | 11,5                    |
| 17400                   | 141  | 19,7                    | 9,96                    |
| 17400                   | 160  | 17,3                    | 8,77                    |
| 17400                   | 174  | 15,9                    | 8,04                    |
| 17400                   | 198  | 14,0                    | 7,06                    |
| 17400                   | 223  | 12,4                    | 6,28                    |
| 17400                   | 246  | 11,3                    | 5,70                    |
| 17400                   | 280  | 9,88                    | 5,00                    |
| 16400                   | 309  | 8,47                    | 4,54                    |

## B4C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 28600                   | 79,5 | 57,2                    | 17,6                    |
| 28600                   | 88,8 | 51,2                    | 15,8                    |
| 28600                   | 103  | 44,2                    | 13,6                    |
| 28600                   | 113  | 40,3                    | 12,4                    |
| 28600                   | 122  | 37,2                    | 11,4                    |
| 28600                   | 141  | 32,3                    | 9,93                    |
| 28600                   | 160  | 28,4                    | 8,75                    |
| 28600                   | 175  | 26,1                    | 8,02                    |
| 28600                   | 199  | 22,9                    | 7,04                    |
| 28600                   | 224  | 20,4                    | 6,26                    |
| 28600                   | 246  | 18,5                    | 5,68                    |
| 28200                   | 281  | 16,0                    | 4,98                    |
| 27200                   | 310  | 14,0                    | 4,52                    |

## B4C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12400                   | 96,2 | 20,5                    | 14,6                    |
| 12400                   | 107  | 18,4                    | 13,0                    |
| 12400                   | 124  | 15,9                    | 11,2                    |
| 12400                   | 136  | 14,5                    | 10,3                    |
| 12400                   | 148  | 13,3                    | 9,45                    |
| 12400                   | 171  | 11,6                    | 8,21                    |
| 12400                   | 194  | 10,2                    | 7,23                    |
| 12400                   | 211  | 9,35                    | 6,63                    |
| 12400                   | 241  | 8,21                    | 5,82                    |
| 12400                   | 270  | 7,31                    | 5,18                    |
| 12400                   | 298  | 6,63                    | 4,70                    |
| 12400                   | 340  | 5,82                    | 4,12                    |
| 11600                   | 374  | 4,94                    | 3,74                    |

## B4C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 21800                   | 99,9 | 34,7                    | 14,0                    |
| 21800                   | 112  | 31,0                    | 12,5                    |
| 21800                   | 129  | 26,8                    | 10,8                    |
| 21800                   | 142  | 24,4                    | 9,87                    |
| 21800                   | 154  | 22,5                    | 9,10                    |
| 21800                   | 177  | 19,6                    | 7,90                    |
| 21800                   | 201  | 17,2                    | 6,96                    |
| 21800                   | 220  | 15,8                    | 6,38                    |
| 21800                   | 250  | 13,9                    | 5,60                    |
| 21800                   | 281  | 12,3                    | 4,98                    |
| 21800                   | 310  | 11,2                    | 4,52                    |
| 21200                   | 353  | 9,57                    | 3,96                    |
| 20400                   | 389  | 8,35                    | 3,60                    |

## B4C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 35400                   | 99,7 | 56,5                    | 14,0                    |
| 35400                   | 111  | 50,6                    | 12,6                    |
| 35400                   | 129  | 43,7                    | 10,9                    |
| 35400                   | 141  | 39,8                    | 9,90                    |
| 35400                   | 153  | 36,7                    | 9,12                    |
| 35400                   | 177  | 31,9                    | 7,92                    |
| 35400                   | 201  | 28,1                    | 6,98                    |
| 35400                   | 219  | 25,7                    | 6,40                    |
| 35400                   | 249  | 22,6                    | 5,62                    |
| 35400                   | 280  | 20,1                    | 5,00                    |
| 35400                   | 309  | 18,2                    | 4,53                    |
| 35400                   | 352  | 16,0                    | 3,98                    |
| 34400                   | 388  | 14,1                    | 3,61                    |

B4C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 49300                   | 80,9 | 97,0                    | 17,3        |
| 49300                   | 89,9 | 87,4                    | 15,6        |
| 49300                   | 103  | 76,0                    | 13,6        |
| 49300                   | 114  | 68,8                    | 12,3        |
| 49300                   | 124  | 63,4                    | 11,3        |
| 49300                   | 143  | 55,1                    | 9,82        |
| 49300                   | 162  | 48,5                    | 8,65        |
| 49300                   | 177  | 44,5                    | 7,93        |
| 49300                   | 201  | 39,0                    | 6,96        |
| 49300                   | 226  | 34,7                    | 6,19        |
| 49300                   | 249  | 31,5                    | 5,62        |
| 49300                   | 284  | 27,6                    | 4,93        |
| 48000                   | 313  | 24,4                    | 4,47        |

B4C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 72600                   | 82,1 | 141                     | 17,0        |
| 72600                   | 90,0 | 128                     | 15,6        |
| 72600                   | 105  | 110                     | 13,4        |
| 72600                   | 116  | 99,9                    | 12,1        |
| 72600                   | 126  | 92,1                    | 11,1        |
| 72600                   | 145  | 79,9                    | 9,68        |
| 72600                   | 166  | 69,7                    | 8,44        |
| 72600                   | 179  | 64,5                    | 7,81        |
| 72600                   | 204  | 56,7                    | 6,86        |
| 72600                   | 230  | 50,3                    | 6,09        |
| 72600                   | 253  | 45,7                    | 5,54        |
| 72600                   | 288  | 40,1                    | 4,86        |
| 72600                   | 318  | 36,4                    | 4,41        |

B4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 62400                   | 103 | 96,6                    | 13,6        |
| 62400                   | 114 | 87,0                    | 12,3        |
| 62400                   | 131 | 75,7                    | 10,7        |
| 62400                   | 145 | 68,5                    | 9,65        |
| 62400                   | 157 | 63,2                    | 8,89        |
| 62400                   | 181 | 54,9                    | 7,72        |
| 62400                   | 206 | 48,3                    | 6,80        |
| 62400                   | 225 | 44,3                    | 6,23        |
| 62400                   | 256 | 38,9                    | 5,47        |
| 62400                   | 287 | 34,6                    | 4,87        |
| 62400                   | 317 | 31,4                    | 4,42        |
| 62400                   | 361 | 27,5                    | 3,88        |
| 60000                   | 398 | 24,0                    | 3,52        |

B4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 90400                   | 102 | 142                     | 13,8        |
| 90400                   | 112 | 129                     | 12,5        |
| 90400                   | 130 | 111                     | 10,8        |
| 90400                   | 143 | 100                     | 9,76        |
| 90400                   | 156 | 92,5                    | 8,99        |
| 90400                   | 179 | 80,4                    | 7,81        |
| 90400                   | 205 | 70,1                    | 6,81        |
| 90400                   | 222 | 64,9                    | 6,30        |
| 90400                   | 253 | 57,0                    | 5,54        |
| 90400                   | 284 | 50,7                    | 4,92        |
| 90400                   | 313 | 46,0                    | 4,47        |
| 90400                   | 357 | 40,3                    | 3,92        |
| 90400                   | 394 | 36,6                    | 3,56        |

## 20.3 BC GEAR REDUCER - 1140 rpm

## B2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7670                    | 5,01 | 191                     | 228                     |
| 7670                    | 5,49 | 174                     | 208                     |
| 7670                    | 6,39 | 149                     | 179                     |
| 7670                    | 7,06 | 135                     | 162                     |
| 7670                    | 7,66 | 125                     | 149                     |
| 7670                    | 8,82 | 108                     | 129                     |
| 7670                    | 10,1 | 94,4                    | 113                     |
| 7670                    | 10,9 | 87,3                    | 104                     |

## B2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15500                   | 4,87 | 396                     | 234                     |
| 15500                   | 5,33 | 361                     | 214                     |
| 15500                   | 6,21 | 311                     | 184                     |
| 15500                   | 6,86 | 281                     | 166                     |
| 15500                   | 7,88 | 245                     | 145                     |
| 15500                   | 8,57 | 225                     | 133                     |
| 15500                   | 9,82 | 196                     | 116                     |
| 15500                   | 10,6 | 182                     | 107                     |

## B2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24400                   | 5,00 | 607                     | 228                     |
| 24400                   | 5,48 | 553                     | 208                     |
| 24400                   | 6,38 | 475                     | 179                     |
| 24400                   | 7,05 | 430                     | 162                     |
| 24400                   | 8,10 | 375                     | 141                     |
| 24400                   | 8,81 | 344                     | 129                     |
| 24400                   | 10,1 | 300                     | 113                     |
| 24400                   | 10,9 | 278                     | 104                     |

## B2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37500                   | 4,90 | 953                     | 233                     |
| 39200                   | 5,53 | 882                     | 206                     |
| 41000                   | 6,30 | 809                     | 181                     |
| 42800                   | 7,04 | 756                     | 162                     |
| 44100                   | 7,99 | 685                     | 143                     |
| 44100                   | 8,69 | 630                     | 131                     |
| 44100                   | 9,97 | 550                     | 114                     |
| 44100                   | 10,8 | 509                     | 106                     |

## B2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9790                    | 6,21 | 196                     | 184                     |
| 9790                    | 6,80 | 179                     | 168                     |
| 9790                    | 7,92 | 154                     | 144                     |
| 9790                    | 8,75 | 139                     | 130                     |
| 9790                    | 9,49 | 128                     | 120                     |
| 9790                    | 10,9 | 111                     | 104                     |
| 9790                    | 12,5 | 97,2                    | 91,0                    |
| 9790                    | 13,5 | 89,9                    | 84,2                    |

## B2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19400                   | 6,14 | 394                     | 186                     |
| 19400                   | 6,73 | 359                     | 170                     |
| 19400                   | 7,83 | 309                     | 146                     |
| 19400                   | 8,65 | 279                     | 132                     |
| 19400                   | 9,94 | 243                     | 115                     |
| 19400                   | 10,8 | 224                     | 106                     |
| 19400                   | 12,4 | 195                     | 92,0                    |
| 19400                   | 13,4 | 180                     | 85,2                    |

## B2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 31000                   | 6,27 | 615                     | 182                     |
| 31000                   | 6,88 | 561                     | 166                     |
| 31000                   | 8,00 | 482                     | 143                     |
| 31000                   | 8,84 | 436                     | 129                     |
| 31000                   | 10,2 | 380                     | 112                     |
| 31000                   | 11,0 | 349                     | 103                     |
| 31000                   | 12,7 | 305                     | 90,0                    |
| 31000                   | 13,7 | 282                     | 83,3                    |

## B2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 48000                   | 6,23 | 958                     | 183                     |
| 49700                   | 7,04 | 878                     | 162                     |
| 51500                   | 8,01 | 800                     | 142                     |
| 53200                   | 8,95 | 739                     | 127                     |
| 54100                   | 10,2 | 662                     | 112                     |
| 54100                   | 11,1 | 609                     | 103                     |
| 54100                   | 12,7 | 531                     | 90,0                    |
| 54100                   | 13,7 | 491                     | 83,3                    |

## 20.3 BC GEAR REDUCER - 1140 rpm

B2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 56000                   | 4,97 | 1400                    | 230                     |
| 56800                   | 5,61 | 1260                    | 203                     |
| 60200                   | 6,39 | 1170                    | 179                     |
| 61900                   | 7,14 | 1080                    | 160                     |
| 65300                   | 8,11 | 1000                    | 141                     |
| 66200                   | 8,82 | 933                     | 129                     |
| 66200                   | 10,1 | 814                     | 113                     |
| 66200                   | 10,9 | 753                     | 104                     |

B2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 69500                   | 6,16 | 1400                    | 185                     |
| 71200                   | 6,96 | 1270                    | 164                     |
| 74700                   | 7,92 | 1170                    | 144                     |
| 77200                   | 8,85 | 1080                    | 129                     |
| 80600                   | 10,0 | 998                     | 113                     |
| 82400                   | 10,9 | 938                     | 104                     |
| 82400                   | 12,5 | 818                     | 91,0                    |
| 82400                   | 13,5 | 757                     | 84,2                    |

20.3 BC GEAR REDUCER - 1140 rpm

B3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 7670                    | 12,7 | 76,7                    | 89,7        |
| 8000                    | 14,0 | 72,7                    | 81,6        |
| 8570                    | 15,8 | 68,7                    | 72,0        |
| 9220                    | 17,4 | 67,3                    | 65,5        |
| 9470                    | 19,6 | 61,2                    | 58,0        |
| 9470                    | 22,0 | 54,8                    | 51,9        |
| 9470                    | 25,4 | 47,3                    | 44,8        |
| 9470                    | 27,9 | 43,1                    | 40,9        |
| 9470                    | 30,2 | 39,7                    | 37,7        |
| 9470                    | 34,8 | 34,5                    | 32,7        |
| 9470                    | 39,6 | 30,4                    | 28,8        |
| 9470                    | 43,1 | 27,9                    | 26,4        |
| 9470                    | 49,1 | 24,5                    | 23,2        |
| 9470                    | 55,2 | 21,8                    | 20,6        |
| 9300                    | 60,9 | 19,4                    | 18,7        |
| 8980                    | 69,4 | 16,4                    | 16,4        |

B3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 13900                   | 12,4 | 142                     | 91,7        |
| 14900                   | 13,5 | 140                     | 84,4        |
| 16200                   | 16,3 | 126                     | 70,0        |
| 17200                   | 17,7 | 124                     | 64,4        |
| 17700                   | 19,9 | 113                     | 57,1        |
| 17700                   | 22,1 | 102                     | 51,5        |
| 17700                   | 25,4 | 88,4                    | 44,8        |
| 17700                   | 28,1 | 80,0                    | 40,5        |
| 17700                   | 30,5 | 73,7                    | 37,4        |
| 17700                   | 35,1 | 64,0                    | 32,4        |
| 17700                   | 39,9 | 56,4                    | 28,6        |
| 17700                   | 43,5 | 51,7                    | 26,2        |
| 17700                   | 49,6 | 45,4                    | 23,0        |
| 17700                   | 55,7 | 40,4                    | 20,5        |
| 17500                   | 61,4 | 36,1                    | 18,6        |
| 16300                   | 70,0 | 29,6                    | 16,3        |

B3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 22800                   | 12,6 | 231                     | 90,8        |
| 24100                   | 14,1 | 216                     | 80,6        |
| 25300                   | 16,0 | 201                     | 71,5        |
| 27700                   | 18,0 | 196                     | 63,5        |
| 29100                   | 20,3 | 183                     | 56,3        |
| 29100                   | 22,2 | 167                     | 51,3        |
| 29100                   | 25,8 | 143                     | 44,1        |
| 29100                   | 28,6 | 130                     | 39,9        |
| 29100                   | 31,0 | 119                     | 36,8        |
| 29100                   | 35,7 | 104                     | 32,0        |
| 29100                   | 40,9 | 90,4                    | 27,9        |
| 29100                   | 44,2 | 83,7                    | 25,8        |
| 29100                   | 50,3 | 73,5                    | 22,6        |
| 29100                   | 56,6 | 65,4                    | 20,1        |
| 29100                   | 62,4 | 59,3                    | 18,3        |
| 27700                   | 71,1 | 49,6                    | 16,0        |

B3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9790                    | 15,8 | 78,6                    | 72,0        |
| 10300                   | 17,3 | 75,4                    | 65,9        |
| 10800                   | 19,7 | 69,3                    | 57,8        |
| 11600                   | 21,6 | 68,2                    | 52,8        |
| 12600                   | 24,3 | 66,0                    | 46,8        |
| 12600                   | 27,2 | 59,0                    | 41,9        |
| 12600                   | 31,5 | 51,0                    | 36,2        |
| 12600                   | 34,6 | 46,5                    | 33,0        |
| 12600                   | 37,5 | 42,8                    | 30,4        |
| 12600                   | 43,2 | 37,2                    | 26,4        |
| 12600                   | 49,0 | 32,8                    | 23,3        |
| 12600                   | 53,5 | 30,0                    | 21,3        |
| 12600                   | 60,9 | 26,4                    | 18,7        |
| 12600                   | 68,5 | 23,5                    | 16,7        |
| 11400                   | 75,5 | 19,2                    | 15,1        |
| 11400                   | 86,0 | 16,9                    | 13,3        |

B3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 17500                   | 15,8 | 141                     | 72,3        |
| 18800                   | 17,0 | 140                     | 66,9        |
| 20400                   | 20,6 | 125                     | 55,2        |
| 21600                   | 22,3 | 123                     | 51,1        |
| 22200                   | 25,2 | 112                     | 45,3        |
| 22200                   | 27,9 | 101                     | 40,8        |
| 22200                   | 32,1 | 87,9                    | 35,5        |
| 22200                   | 35,5 | 79,5                    | 32,1        |
| 22200                   | 38,5 | 73,3                    | 29,6        |
| 22200                   | 44,3 | 63,6                    | 25,7        |
| 22200                   | 50,3 | 56,0                    | 22,7        |
| 22200                   | 54,9 | 51,4                    | 20,8        |
| 22200                   | 62,5 | 45,1                    | 18,2        |
| 22200                   | 70,3 | 40,1                    | 16,2        |
| 22000                   | 77,5 | 36,0                    | 14,7        |
| 20600                   | 88,3 | 29,6                    | 12,9        |

B3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29000                   | 15,7 | 235                     | 72,6        |
| 30600                   | 17,7 | 219                     | 64,3        |
| 32100                   | 19,9 | 204                     | 57,2        |
| 34100                   | 22,5 | 192                     | 50,6        |
| 35700                   | 25,4 | 179                     | 44,9        |
| 35700                   | 27,8 | 163                     | 40,9        |
| 35700                   | 32,4 | 140                     | 35,2        |
| 35700                   | 35,8 | 127                     | 31,8        |
| 35700                   | 38,8 | 117                     | 29,3        |
| 35700                   | 44,7 | 101                     | 25,5        |
| 35700                   | 51,3 | 88,5                    | 22,2        |
| 35700                   | 55,4 | 81,9                    | 20,6        |
| 35700                   | 63,1 | 71,9                    | 18,1        |
| 35700                   | 71,0 | 64,0                    | 16,1        |
| 35700                   | 78,2 | 58,0                    | 14,6        |
| 35100                   | 89,1 | 50,0                    | 12,8        |

B3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 42800                   | 12,3 | 440                     | 92,4        |
| 46300                   | 13,8 | 425                     | 82,5        |
| 48900                   | 15,5 | 400                     | 73,4        |
| 50600                   | 17,4 | 369                     | 65,5        |
| 51800                   | 19,7 | 333                     | 57,7        |
| 51800                   | 21,6 | 304                     | 52,7        |
| 51800                   | 25,2 | 261                     | 45,3        |
| 51800                   | 27,8 | 236                     | 41,0        |
| 51800                   | 32,0 | 206                     | 35,7        |
| 51800                   | 34,8 | 189                     | 32,8        |
| 51800                   | 39,9 | 165                     | 28,6        |
| 51800                   | 43,1 | 153                     | 26,5        |
| 51800                   | 49,1 | 134                     | 23,2        |
| 51800                   | 55,2 | 119                     | 20,7        |
| 51800                   | 60,8 | 108                     | 18,7        |
| 49000                   | 69,3 | 89,7                    | 16,5        |

B3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 64900                   | 12,5 | 660                     | 91,3        |
| 66600                   | 13,7 | 616                     | 83,1        |
| 68400                   | 16,4 | 531                     | 69,7        |
| 70700                   | 18,0 | 500                     | 63,4        |
| 74000                   | 20,3 | 464                     | 56,2        |
| 74000                   | 22,2 | 423                     | 51,3        |
| 74000                   | 25,9 | 363                     | 44,1        |
| 74000                   | 28,6 | 329                     | 39,9        |
| 74000                   | 32,8 | 286                     | 34,7        |
| 74000                   | 35,7 | 263                     | 31,9        |
| 74000                   | 40,9 | 230                     | 27,8        |
| 74000                   | 44,2 | 212                     | 25,8        |
| 74000                   | 50,4 | 187                     | 22,6        |
| 74000                   | 56,6 | 166                     | 20,1        |
| 63000                   | 62,4 | 128                     | 18,3        |
| 74000                   | 62,4 | 151                     | 18,3        |
| 63000                   | 70,1 | 114                     | 16,3        |
| 74000                   | 71,2 | 132                     | 16,0        |
| 63000                   | 77,3 | 103                     | 14,7        |
| 61200                   | 88,1 | 88,2                    | 12,9        |

B3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 54100                   | 15,9 | 432                     | 71,8        |
| 56700                   | 17,6 | 410                     | 64,9        |
| 59300                   | 20,0 | 377                     | 57,0        |
| 61700                   | 22,1 | 354                     | 51,6        |
| 63000                   | 25,1 | 319                     | 45,4        |
| 63000                   | 27,5 | 291                     | 41,4        |
| 63000                   | 32,0 | 250                     | 35,6        |
| 63000                   | 35,4 | 226                     | 32,2        |
| 63000                   | 40,7 | 197                     | 28,0        |
| 63000                   | 44,2 | 181                     | 25,8        |
| 63000                   | 50,7 | 158                     | 22,5        |
| 63000                   | 54,8 | 146                     | 20,8        |

B3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 81100                   | 15,6 | 662                     | 73,3        |
| 83200                   | 17,0 | 621                     | 67,0        |
| 85700                   | 20,4 | 534                     | 55,9        |
| 88100                   | 22,3 | 502                     | 51,2        |
| 92200                   | 25,1 | 466                     | 45,4        |
| 92200                   | 27,5 | 425                     | 41,4        |
| 92200                   | 32,1 | 365                     | 35,6        |
| 92200                   | 35,4 | 330                     | 32,2        |
| 92200                   | 40,7 | 288                     | 28,0        |
| 92200                   | 44,3 | 265                     | 25,8        |
| 92200                   | 50,7 | 231                     | 22,5        |
| 92200                   | 54,8 | 214                     | 20,8        |
| 92200                   | 62,4 | 188                     | 18,3        |
| 92200                   | 70,2 | 167                     | 16,2        |
| 92200                   | 77,4 | 151                     | 14,7        |
| 92200                   | 88,2 | 133                     | 12,9        |

## 20.3 BC GEAR REDUCER - 1140 rpm

## B4C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9470                    | 77,6 | 15,8                    | 14,7                    |
| 9470                    | 86,7 | 14,2                    | 13,1                    |
| 9470                    | 100  | 12,2                    | 11,4                    |
| 9470                    | 110  | 11,2                    | 10,4                    |
| 9470                    | 119  | 10,3                    | 9,54                    |
| 9470                    | 138  | 8,93                    | 8,29                    |
| 9470                    | 156  | 7,86                    | 7,30                    |
| 9470                    | 170  | 7,21                    | 6,69                    |
| 9470                    | 194  | 6,33                    | 5,87                    |
| 9470                    | 218  | 5,63                    | 5,22                    |
| 9470                    | 241  | 5,11                    | 4,74                    |
| 9470                    | 274  | 4,48                    | 4,16                    |
| 9140                    | 302  | 3,93                    | 3,77                    |

## B4C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17700                   | 79,3 | 29,0                    | 14,4                    |
| 17700                   | 88,6 | 25,9                    | 12,9                    |
| 17700                   | 103  | 22,4                    | 11,1                    |
| 17700                   | 112  | 20,4                    | 10,1                    |
| 17700                   | 122  | 18,8                    | 9,34                    |
| 17700                   | 141  | 16,3                    | 8,11                    |
| 17700                   | 160  | 14,4                    | 7,14                    |
| 17700                   | 174  | 13,2                    | 6,55                    |
| 17700                   | 198  | 11,6                    | 5,75                    |
| 17700                   | 223  | 10,3                    | 5,11                    |
| 17700                   | 246  | 9,35                    | 4,64                    |
| 17700                   | 280  | 8,20                    | 4,07                    |
| 16700                   | 309  | 7,03                    | 3,69                    |

## B4C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29100                   | 79,5 | 47,5                    | 14,3                    |
| 29100                   | 88,8 | 42,5                    | 12,8                    |
| 29100                   | 103  | 36,7                    | 11,1                    |
| 29100                   | 113  | 33,5                    | 10,1                    |
| 29100                   | 122  | 30,9                    | 9,31                    |
| 29100                   | 141  | 26,8                    | 8,09                    |
| 29100                   | 160  | 23,6                    | 7,12                    |
| 29100                   | 175  | 21,6                    | 6,53                    |
| 29100                   | 199  | 19,0                    | 5,73                    |
| 29100                   | 224  | 16,9                    | 5,10                    |
| 29100                   | 246  | 15,3                    | 4,63                    |
| 28800                   | 281  | 13,3                    | 4,06                    |
| 27700                   | 310  | 11,6                    | 3,68                    |

## B4C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 12600                   | 96,2 | 17,1                    | 11,9                    |
| 12600                   | 107  | 15,3                    | 10,6                    |
| 12600                   | 124  | 13,2                    | 9,16                    |
| 12600                   | 136  | 12,0                    | 8,35                    |
| 12600                   | 148  | 11,1                    | 7,70                    |
| 12600                   | 171  | 9,62                    | 6,69                    |
| 12600                   | 194  | 8,48                    | 5,89                    |
| 12600                   | 211  | 7,77                    | 5,40                    |
| 12600                   | 241  | 6,82                    | 4,74                    |
| 12600                   | 270  | 6,07                    | 4,22                    |
| 12600                   | 298  | 5,50                    | 3,82                    |
| 12600                   | 340  | 4,83                    | 3,36                    |
| 11800                   | 374  | 4,10                    | 3,04                    |

## B4C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 22200                   | 99,9 | 28,8                    | 11,4                    |
| 22200                   | 112  | 25,8                    | 10,2                    |
| 22200                   | 129  | 22,3                    | 8,81                    |
| 22200                   | 142  | 20,3                    | 8,04                    |
| 22200                   | 154  | 18,7                    | 7,41                    |
| 22200                   | 177  | 16,3                    | 6,43                    |
| 22200                   | 201  | 14,3                    | 5,67                    |
| 22200                   | 220  | 13,1                    | 5,19                    |
| 22200                   | 250  | 11,5                    | 4,56                    |
| 22200                   | 281  | 10,2                    | 4,06                    |
| 22200                   | 310  | 9,29                    | 3,68                    |
| 21600                   | 353  | 7,95                    | 3,23                    |
| 20800                   | 389  | 6,94                    | 2,93                    |

## B4C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 36100                   | 99,7 | 47,0                    | 11,4                    |
| 36100                   | 111  | 42,0                    | 10,2                    |
| 36100                   | 129  | 36,3                    | 8,84                    |
| 36100                   | 141  | 33,1                    | 8,06                    |
| 36100                   | 153  | 30,5                    | 7,43                    |
| 36100                   | 177  | 26,5                    | 6,45                    |
| 36100                   | 201  | 23,3                    | 5,68                    |
| 36100                   | 219  | 21,4                    | 5,21                    |
| 36100                   | 249  | 18,8                    | 4,57                    |
| 36100                   | 280  | 16,7                    | 4,07                    |
| 36100                   | 309  | 15,1                    | 3,69                    |
| 36100                   | 352  | 13,3                    | 3,24                    |
| 35100                   | 388  | 11,7                    | 2,94                    |

## 20.3 BC GEAR REDUCER - 1140 rpm

## B4C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 50300                   | 80,9 | 80,6                    | 14,1                    |
| 50300                   | 89,9 | 72,6                    | 12,7                    |
| 50300                   | 103  | 63,2                    | 11,0                    |
| 50300                   | 114  | 57,1                    | 9,99                    |
| 50300                   | 124  | 52,7                    | 9,21                    |
| 50300                   | 143  | 45,7                    | 8,00                    |
| 50300                   | 162  | 40,3                    | 7,04                    |
| 50300                   | 177  | 36,9                    | 6,45                    |
| 50300                   | 201  | 32,4                    | 5,67                    |
| 50300                   | 226  | 28,8                    | 5,04                    |
| 50300                   | 249  | 26,2                    | 4,57                    |
| 50300                   | 284  | 23,0                    | 4,01                    |
| 49000                   | 313  | 20,3                    | 3,64                    |

## B4C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 74000                   | 82,1 | 117                     | 13,9                    |
| 74000                   | 90,0 | 107                     | 12,7                    |
| 74000                   | 105  | 91,7                    | 10,9                    |
| 74000                   | 116  | 82,9                    | 9,85                    |
| 74000                   | 126  | 76,5                    | 9,08                    |
| 74000                   | 145  | 66,4                    | 7,88                    |
| 74000                   | 166  | 57,9                    | 6,88                    |
| 74000                   | 179  | 53,6                    | 6,36                    |
| 74000                   | 204  | 47,1                    | 5,59                    |
| 74000                   | 230  | 41,8                    | 4,96                    |
| 74000                   | 253  | 38,0                    | 4,51                    |
| 74000                   | 288  | 33,3                    | 3,96                    |
| 74000                   | 318  | 30,2                    | 3,59                    |

## B4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 63600                   | 103 | 80,2                    | 11,1                    |
| 63600                   | 114 | 72,3                    | 9,98                    |
| 63600                   | 131 | 62,9                    | 8,68                    |
| 63600                   | 145 | 56,9                    | 7,86                    |
| 63600                   | 157 | 52,5                    | 7,24                    |
| 63600                   | 181 | 45,6                    | 6,29                    |
| 63600                   | 206 | 40,1                    | 5,54                    |
| 63600                   | 225 | 36,8                    | 5,08                    |
| 63600                   | 256 | 32,3                    | 4,46                    |
| 63600                   | 287 | 28,7                    | 3,97                    |
| 63600                   | 317 | 26,1                    | 3,60                    |
| 63600                   | 361 | 22,9                    | 3,16                    |
| 61200                   | 398 | 19,9                    | 2,86                    |

## B4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 92200                   | 102 | 118                     | 11,2                    |
| 92200                   | 112 | 107                     | 10,2                    |
| 92200                   | 130 | 92,2                    | 8,78                    |
| 92200                   | 143 | 83,4                    | 7,94                    |
| 92200                   | 156 | 76,9                    | 7,32                    |
| 92200                   | 179 | 66,7                    | 6,36                    |
| 92200                   | 205 | 58,2                    | 5,55                    |
| 92200                   | 222 | 53,9                    | 5,13                    |
| 92200                   | 253 | 47,3                    | 4,51                    |
| 92200                   | 284 | 42,1                    | 4,01                    |
| 92200                   | 313 | 38,2                    | 3,64                    |
| 92200                   | 357 | 33,5                    | 3,19                    |
| 92200                   | 394 | 30,4                    | 2,90                    |

## 20.4 BC GEAR REDUCER - 900 rpm

## B2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7820                    | 5,01 | 153                     | 180                     |
| 7820                    | 5,49 | 140                     | 164                     |
| 7820                    | 6,39 | 120                     | 141                     |
| 7820                    | 7,06 | 109                     | 128                     |
| 7820                    | 7,66 | 100                     | 118                     |
| 7820                    | 8,82 | 87,1                    | 102                     |
| 7820                    | 10,1 | 76,0                    | 89,0                    |
| 7820                    | 10,9 | 70,3                    | 82,4                    |

## B2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 15800                   | 4,87 | 319                     | 185                     |
| 15800                   | 5,33 | 291                     | 169                     |
| 15800                   | 6,21 | 250                     | 145                     |
| 15800                   | 6,86 | 226                     | 131                     |
| 15800                   | 7,88 | 197                     | 114                     |
| 15800                   | 8,57 | 181                     | 105                     |
| 15800                   | 9,82 | 158                     | 91,6                    |
| 15800                   | 10,6 | 146                     | 84,8                    |

## B2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 24900                   | 5,00 | 488                     | 180                     |
| 24900                   | 5,48 | 445                     | 164                     |
| 24900                   | 6,38 | 383                     | 141                     |
| 24900                   | 7,05 | 346                     | 128                     |
| 24900                   | 8,10 | 301                     | 111                     |
| 24900                   | 8,81 | 277                     | 102                     |
| 24900                   | 10,1 | 242                     | 89,1                    |
| 24900                   | 10,9 | 224                     | 82,5                    |

## B2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38300                   | 4,90 | 767                     | 184                     |
| 40000                   | 5,53 | 710                     | 163                     |
| 41800                   | 6,30 | 651                     | 143                     |
| 43600                   | 7,04 | 608                     | 128                     |
| 44900                   | 7,99 | 552                     | 113                     |
| 44900                   | 8,69 | 507                     | 104                     |
| 44900                   | 9,97 | 443                     | 90,3                    |
| 44900                   | 10,8 | 410                     | 83,6                    |

## B2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9980                    | 6,21 | 158                     | 145                     |
| 9980                    | 6,80 | 144                     | 132                     |
| 9980                    | 7,92 | 124                     | 114                     |
| 9980                    | 8,75 | 112                     | 103                     |
| 9980                    | 9,49 | 103                     | 94,8                    |
| 9980                    | 10,9 | 89,7                    | 82,4                    |
| 9980                    | 12,5 | 78,2                    | 71,8                    |
| 9980                    | 13,5 | 72,4                    | 66,5                    |

## B2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 19800                   | 6,14 | 317                     | 147                     |
| 19800                   | 6,73 | 289                     | 134                     |
| 19800                   | 7,83 | 248                     | 115                     |
| 19800                   | 8,65 | 225                     | 104                     |
| 19800                   | 9,94 | 196                     | 90,6                    |
| 19800                   | 10,8 | 180                     | 83,3                    |
| 19800                   | 12,4 | 157                     | 72,7                    |
| 19800                   | 13,4 | 145                     | 67,2                    |

## B2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 31600                   | 6,27 | 495                     | 144                     |
| 31600                   | 6,88 | 451                     | 131                     |
| 31600                   | 8,00 | 388                     | 113                     |
| 31600                   | 8,84 | 351                     | 102                     |
| 31600                   | 10,2 | 306                     | 88,6                    |
| 31600                   | 11,0 | 281                     | 81,5                    |
| 31600                   | 12,7 | 245                     | 71,1                    |
| 31600                   | 13,7 | 227                     | 65,8                    |

## B2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 48900                   | 6,23 | 771                     | 145                     |
| 50700                   | 7,04 | 707                     | 128                     |
| 52500                   | 8,01 | 644                     | 112                     |
| 54200                   | 8,95 | 595                     | 101                     |
| 55200                   | 10,2 | 533                     | 88,5                    |
| 55200                   | 11,1 | 490                     | 81,4                    |
| 55200                   | 12,7 | 427                     | 71,0                    |
| 55200                   | 13,7 | 395                     | 65,7                    |

## 20.4 BC GEAR REDUCER - 900 rpm

B2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 57100                   | 4,97 | 1130                    | 181                     |
| 57900                   | 5,61 | 1010                    | 160                     |
| 61400                   | 6,39 | 944                     | 141                     |
| 63100                   | 7,14 | 868                     | 126                     |
| 66600                   | 8,11 | 806                     | 111                     |
| 67500                   | 8,82 | 751                     | 102                     |
| 67500                   | 10,1 | 655                     | 89,0                    |
| 67500                   | 10,9 | 606                     | 82,4                    |

B2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 70900                   | 6,16 | 1130                    | 146                     |
| 72600                   | 6,96 | 1020                    | 129                     |
| 76100                   | 7,92 | 944                     | 114                     |
| 78700                   | 8,85 | 873                     | 102                     |
| 82200                   | 10,0 | 803                     | 89,6                    |
| 84000                   | 10,9 | 755                     | 82,4                    |
| 84000                   | 12,5 | 658                     | 71,8                    |
| 84000                   | 13,5 | 609                     | 66,5                    |

## 20.4 BC GEAR REDUCER - 900 rpm

## B3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7820                    | 12,7 | 61,7                    | 70,8                    |
| 8150                    | 14,0 | 58,5                    | 64,5                    |
| 8740                    | 15,8 | 55,3                    | 56,8                    |
| 9400                    | 17,4 | 54,1                    | 51,7                    |
| 9650                    | 19,6 | 49,3                    | 45,8                    |
| 9650                    | 22,0 | 44,1                    | 41,0                    |
| 9650                    | 25,4 | 38,1                    | 35,4                    |
| 9650                    | 27,9 | 34,7                    | 32,3                    |
| 9650                    | 30,2 | 32,0                    | 29,8                    |
| 9650                    | 34,8 | 27,8                    | 25,8                    |
| 9650                    | 39,6 | 24,5                    | 22,8                    |
| 9650                    | 43,1 | 22,4                    | 20,9                    |
| 9650                    | 49,1 | 19,7                    | 18,3                    |
| 9650                    | 55,2 | 17,5                    | 16,3                    |
| 9480                    | 60,9 | 15,6                    | 14,8                    |
| 9150                    | 69,4 | 13,2                    | 13,0                    |

## B3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14100                   | 12,4 | 114                     | 72,4                    |
| 15100                   | 13,5 | 112                     | 66,6                    |
| 16500                   | 16,3 | 101                     | 55,3                    |
| 17600                   | 17,7 | 99,5                    | 50,9                    |
| 18100                   | 19,9 | 90,7                    | 45,1                    |
| 18100                   | 22,1 | 81,7                    | 40,6                    |
| 18100                   | 25,4 | 71,1                    | 35,4                    |
| 18100                   | 28,1 | 64,4                    | 32,0                    |
| 18100                   | 30,5 | 59,3                    | 29,5                    |
| 18100                   | 35,1 | 51,5                    | 25,6                    |
| 18100                   | 39,9 | 45,4                    | 22,6                    |
| 18100                   | 43,5 | 41,6                    | 20,7                    |
| 18100                   | 49,6 | 36,5                    | 18,2                    |
| 18100                   | 55,7 | 32,5                    | 16,2                    |
| 17800                   | 61,4 | 29,1                    | 14,6                    |
| 16600                   | 70,0 | 23,8                    | 12,9                    |

## B3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23300                   | 12,6 | 186                     | 71,7                    |
| 24500                   | 14,1 | 174                     | 63,7                    |
| 25800                   | 16,0 | 162                     | 56,4                    |
| 28200                   | 18,0 | 157                     | 50,1                    |
| 29700                   | 20,3 | 147                     | 44,4                    |
| 29700                   | 22,2 | 134                     | 40,5                    |
| 29700                   | 25,8 | 115                     | 34,8                    |
| 29700                   | 28,6 | 104                     | 31,5                    |
| 29700                   | 31,0 | 96,1                    | 29,0                    |
| 29700                   | 35,7 | 83,5                    | 25,2                    |
| 29700                   | 40,9 | 72,8                    | 22,0                    |
| 29700                   | 44,2 | 67,4                    | 20,4                    |
| 29700                   | 50,3 | 59,2                    | 17,9                    |
| 29700                   | 56,6 | 52,6                    | 15,9                    |
| 29700                   | 62,4 | 47,7                    | 14,4                    |
| 28300                   | 71,1 | 39,9                    | 12,7                    |

## B3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9980                    | 15,8 | 63,2                    | 56,9                    |
| 10500                   | 17,3 | 60,7                    | 52,0                    |
| 11000                   | 19,7 | 55,8                    | 45,6                    |
| 11800                   | 21,6 | 54,9                    | 41,7                    |
| 12900                   | 24,3 | 53,1                    | 37,0                    |
| 12900                   | 27,2 | 47,5                    | 33,1                    |
| 12900                   | 31,5 | 41,0                    | 28,6                    |
| 12900                   | 34,6 | 37,4                    | 26,0                    |
| 12900                   | 37,5 | 34,5                    | 24,0                    |
| 12900                   | 43,2 | 30,0                    | 20,8                    |
| 12900                   | 49,0 | 26,4                    | 18,4                    |
| 12900                   | 53,5 | 24,2                    | 16,8                    |
| 12900                   | 60,9 | 21,2                    | 14,8                    |
| 12900                   | 68,5 | 18,9                    | 13,1                    |
| 11600                   | 75,5 | 15,5                    | 11,9                    |
| 11600                   | 86,0 | 13,6                    | 10,5                    |

## B3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 17900                   | 15,8 | 114                     | 57,1                    |
| 19200                   | 17,0 | 113                     | 52,8                    |
| 20800                   | 20,6 | 101                     | 43,6                    |
| 22000                   | 22,3 | 99,1                    | 40,3                    |
| 22600                   | 25,2 | 90,2                    | 35,8                    |
| 22600                   | 27,9 | 81,3                    | 32,2                    |
| 22600                   | 32,1 | 70,7                    | 28,1                    |
| 22600                   | 35,5 | 64,0                    | 25,4                    |
| 22600                   | 38,5 | 59,0                    | 23,4                    |
| 22600                   | 44,3 | 51,2                    | 20,3                    |
| 22600                   | 50,3 | 45,1                    | 17,9                    |
| 22600                   | 54,9 | 41,3                    | 16,4                    |
| 22600                   | 62,5 | 36,3                    | 14,4                    |
| 22600                   | 70,3 | 32,3                    | 12,8                    |
| 22400                   | 77,5 | 29,0                    | 11,6                    |
| 21000                   | 88,3 | 23,8                    | 10,2                    |

## B3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29600                   | 15,7 | 189                     | 57,4                    |
| 31200                   | 17,7 | 176                     | 50,8                    |
| 32700                   | 19,9 | 164                     | 45,1                    |
| 34800                   | 22,5 | 155                     | 40,0                    |
| 36400                   | 25,4 | 144                     | 35,4                    |
| 36400                   | 27,8 | 131                     | 32,3                    |
| 36400                   | 32,4 | 113                     | 27,8                    |
| 36400                   | 35,8 | 102                     | 25,1                    |
| 36400                   | 38,8 | 94,1                    | 23,2                    |
| 36400                   | 44,7 | 81,7                    | 20,1                    |
| 36400                   | 51,3 | 71,2                    | 17,6                    |
| 36400                   | 55,4 | 65,9                    | 16,2                    |
| 36400                   | 63,1 | 57,9                    | 14,3                    |
| 36400                   | 71,0 | 51,5                    | 12,7                    |
| 36400                   | 78,2 | 46,7                    | 11,5                    |
| 35800                   | 89,1 | 40,2                    | 10,1                    |

B3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 43600                   | 12,3 | 354                     | 73,0        |
| 47200                   | 13,8 | 342                     | 65,1        |
| 49800                   | 15,5 | 322                     | 58,0        |
| 51600                   | 17,4 | 297                     | 51,7        |
| 52800                   | 19,7 | 268                     | 45,6        |
| 52800                   | 21,6 | 245                     | 41,6        |
| 52800                   | 25,2 | 210                     | 35,7        |
| 52800                   | 27,8 | 190                     | 32,3        |
| 52800                   | 32,0 | 166                     | 28,1        |
| 52800                   | 34,8 | 152                     | 25,9        |
| 52800                   | 39,9 | 133                     | 22,6        |
| 52800                   | 43,1 | 123                     | 20,9        |
| 52800                   | 49,1 | 108                     | 18,3        |
| 52800                   | 55,2 | 96,0                    | 16,3        |
| 52800                   | 60,8 | 87,1                    | 14,8        |
| 49900                   | 69,3 | 72,2                    | 13,0        |

B3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 66100                   | 12,5 | 531                     | 72,1        |
| 67900                   | 13,7 | 496                     | 65,6        |
| 69700                   | 16,4 | 427                     | 55,0        |
| 72100                   | 18,0 | 402                     | 50,1        |
| 75500                   | 20,3 | 373                     | 44,4        |
| 75500                   | 22,2 | 340                     | 40,5        |
| 75500                   | 25,9 | 293                     | 34,8        |
| 75500                   | 28,6 | 265                     | 31,5        |
| 75500                   | 32,8 | 230                     | 27,4        |
| 75500                   | 35,7 | 212                     | 25,2        |
| 75500                   | 40,9 | 185                     | 22,0        |
| 75500                   | 44,2 | 171                     | 20,3        |
| 75500                   | 50,4 | 150                     | 17,9        |
| 75500                   | 56,6 | 134                     | 15,9        |
| 64200                   | 62,4 | 103                     | 14,4        |
| 75500                   | 62,4 | 121                     | 14,4        |
| 64200                   | 70,1 | 91,8                    | 12,8        |
| 75500                   | 71,2 | 106                     | 12,6        |
| 64200                   | 77,3 | 83,3                    | 11,6        |
| 62400                   | 88,1 | 71,0                    | 10,2        |

B3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55200                   | 15,9 | 348                     | 56,6        |
| 57800                   | 17,6 | 330                     | 51,2        |
| 60500                   | 20,0 | 303                     | 45,0        |
| 62900                   | 22,1 | 285                     | 40,7        |
| 64200                   | 25,1 | 257                     | 35,9        |
| 64200                   | 27,5 | 234                     | 32,7        |
| 64200                   | 32,0 | 201                     | 28,1        |
| 64200                   | 35,4 | 182                     | 25,4        |
| 64200                   | 40,7 | 158                     | 22,1        |
| 64200                   | 44,2 | 146                     | 20,4        |
| 64200                   | 50,7 | 127                     | 17,8        |
| 64200                   | 54,8 | 118                     | 16,4        |

B3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 82700                   | 15,6 | 533                     | 57,9        |
| 84900                   | 17,0 | 500                     | 52,9        |
| 87400                   | 20,4 | 430                     | 44,2        |
| 89900                   | 22,3 | 404                     | 40,4        |
| 94000                   | 25,1 | 375                     | 35,8        |
| 94000                   | 27,5 | 342                     | 32,7        |
| 94000                   | 32,1 | 294                     | 28,1        |
| 94000                   | 35,4 | 266                     | 25,4        |
| 94000                   | 40,7 | 232                     | 22,1        |
| 94000                   | 44,3 | 213                     | 20,3        |
| 94000                   | 50,7 | 186                     | 17,7        |
| 94000                   | 54,8 | 172                     | 16,4        |
| 94000                   | 62,4 | 151                     | 14,4        |
| 94000                   | 70,2 | 134                     | 12,8        |
| 94000                   | 77,4 | 122                     | 11,6        |
| 94000                   | 88,2 | 107                     | 10,2        |

B4C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 9650                    | 77,6 | 12,7                    | 11,6        |
| 9650                    | 86,7 | 11,4                    | 10,4        |
| 9650                    | 100  | 9,85                    | 8,96        |
| 9650                    | 110  | 8,98                    | 8,17        |
| 9650                    | 119  | 8,28                    | 7,53        |
| 9650                    | 138  | 7,19                    | 6,54        |
| 9650                    | 156  | 6,33                    | 5,76        |
| 9650                    | 170  | 5,80                    | 5,28        |
| 9650                    | 194  | 5,09                    | 4,64        |
| 9650                    | 218  | 4,53                    | 4,12        |
| 9650                    | 241  | 4,11                    | 3,74        |
| 9650                    | 274  | 3,61                    | 3,28        |
| 9320                    | 302  | 3,16                    | 2,98        |

B4C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 18100                   | 79,3 | 23,3                    | 11,4        |
| 18100                   | 88,6 | 20,9                    | 10,2        |
| 18100                   | 103  | 18,0                    | 8,77        |
| 18100                   | 112  | 16,4                    | 8,00        |
| 18100                   | 122  | 15,2                    | 7,37        |
| 18100                   | 141  | 13,2                    | 6,40        |
| 18100                   | 160  | 11,6                    | 5,64        |
| 18100                   | 174  | 10,6                    | 5,17        |
| 18100                   | 198  | 9,33                    | 4,54        |
| 18100                   | 223  | 8,30                    | 4,04        |
| 18100                   | 246  | 7,53                    | 3,66        |
| 18100                   | 280  | 6,60                    | 3,21        |
| 17100                   | 309  | 5,66                    | 2,92        |

B4C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 29700                   | 79,5 | 38,3                    | 11,3        |
| 29700                   | 88,8 | 34,2                    | 10,1        |
| 29700                   | 103  | 29,6                    | 8,75        |
| 29700                   | 113  | 27,0                    | 7,98        |
| 29700                   | 122  | 24,9                    | 7,35        |
| 29700                   | 141  | 21,6                    | 6,39        |
| 29700                   | 160  | 19,0                    | 5,62        |
| 29700                   | 175  | 17,4                    | 5,15        |
| 29700                   | 199  | 15,3                    | 4,53        |
| 29700                   | 224  | 13,6                    | 4,03        |
| 29700                   | 246  | 12,3                    | 3,65        |
| 29400                   | 281  | 10,7                    | 3,20        |
| 28300                   | 310  | 9,36                    | 2,91        |

B4C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 12900                   | 96,2 | 13,7                    | 9,36        |
| 12900                   | 107  | 12,3                    | 8,37        |
| 12900                   | 124  | 10,6                    | 7,23        |
| 12900                   | 136  | 9,68                    | 6,59        |
| 12900                   | 148  | 8,92                    | 6,08        |
| 12900                   | 171  | 7,75                    | 5,28        |
| 12900                   | 194  | 6,82                    | 4,65        |
| 12900                   | 211  | 6,25                    | 4,26        |
| 12900                   | 241  | 5,49                    | 3,74        |
| 12900                   | 270  | 4,88                    | 3,33        |
| 12900                   | 298  | 4,43                    | 3,02        |
| 12900                   | 340  | 3,89                    | 2,65        |
| 12100                   | 374  | 3,30                    | 2,40        |

B4C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 22600                   | 99,9 | 23,2                    | 9,00        |
| 22600                   | 112  | 20,8                    | 8,06        |
| 22600                   | 129  | 17,9                    | 6,96        |
| 22600                   | 142  | 16,3                    | 6,34        |
| 22600                   | 154  | 15,1                    | 5,85        |
| 22600                   | 177  | 13,1                    | 5,08        |
| 22600                   | 201  | 11,5                    | 4,47        |
| 22600                   | 220  | 10,6                    | 4,10        |
| 22600                   | 250  | 9,27                    | 3,60        |
| 22600                   | 281  | 8,25                    | 3,20        |
| 22600                   | 310  | 7,48                    | 2,90        |
| 22000                   | 353  | 6,40                    | 2,55        |
| 21200                   | 389  | 5,59                    | 2,31        |

B4C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 36800                   | 99,7 | 37,8                    | 9,03        |
| 36800                   | 111  | 33,8                    | 8,08        |
| 36800                   | 129  | 29,2                    | 6,98        |
| 36800                   | 141  | 26,6                    | 6,36        |
| 36800                   | 153  | 24,5                    | 5,87        |
| 36800                   | 177  | 21,3                    | 5,09        |
| 36800                   | 201  | 18,8                    | 4,49        |
| 36800                   | 219  | 17,2                    | 4,11        |
| 36800                   | 249  | 15,1                    | 3,61        |
| 36800                   | 280  | 13,4                    | 3,21        |
| 36800                   | 309  | 12,2                    | 2,91        |
| 36800                   | 352  | 10,7                    | 2,56        |
| 35800                   | 388  | 9,44                    | 2,32        |

B4C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 51300                   | 80,9 | 64,9                    | 11,1        |
| 51300                   | 89,9 | 58,4                    | 10,0        |
| 51300                   | 103  | 50,8                    | 8,72        |
| 51300                   | 114  | 46,0                    | 7,89        |
| 51300                   | 124  | 42,4                    | 7,27        |
| 51300                   | 143  | 36,8                    | 6,31        |
| 51300                   | 162  | 32,4                    | 5,56        |
| 51300                   | 177  | 29,7                    | 5,10        |
| 51300                   | 201  | 26,1                    | 4,47        |
| 51300                   | 226  | 23,2                    | 3,98        |
| 51300                   | 249  | 21,1                    | 3,61        |
| 51300                   | 284  | 18,5                    | 3,17        |
| 49900                   | 313  | 16,3                    | 2,87        |

B4C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 75500                   | 82,1 | 94,1                    | 11,0        |
| 75500                   | 90,0 | 85,9                    | 10,00       |
| 75500                   | 105  | 73,8                    | 8,59        |
| 75500                   | 116  | 66,8                    | 7,77        |
| 75500                   | 126  | 61,5                    | 7,17        |
| 75500                   | 145  | 53,5                    | 6,22        |
| 75500                   | 166  | 46,6                    | 5,43        |
| 75500                   | 179  | 43,1                    | 5,02        |
| 75500                   | 204  | 37,9                    | 4,41        |
| 75500                   | 230  | 33,6                    | 3,91        |
| 75500                   | 253  | 30,6                    | 3,56        |
| 75500                   | 288  | 26,8                    | 3,12        |
| 75500                   | 318  | 24,3                    | 2,83        |

B4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 64900                   | 103 | 64,6                    | 8,74        |
| 64900                   | 114 | 58,2                    | 7,88        |
| 64900                   | 131 | 50,6                    | 6,86        |
| 64900                   | 145 | 45,8                    | 6,20        |
| 64900                   | 157 | 42,2                    | 5,72        |
| 64900                   | 181 | 36,7                    | 4,97        |
| 64900                   | 206 | 32,3                    | 4,37        |
| 64900                   | 225 | 29,6                    | 4,01        |
| 64900                   | 256 | 26,0                    | 3,52        |
| 64900                   | 287 | 23,1                    | 3,13        |
| 64900                   | 317 | 21,0                    | 2,84        |
| 64900                   | 361 | 18,4                    | 2,49        |
| 62400                   | 398 | 16,1                    | 2,26        |

B4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|-----|-------------------------|-------------|
| 94000                   | 102 | 94,6                    | 8,84        |
| 94000                   | 112 | 86,3                    | 8,07        |
| 94000                   | 130 | 74,2                    | 6,93        |
| 94000                   | 143 | 67,1                    | 6,27        |
| 94000                   | 156 | 61,9                    | 5,78        |
| 94000                   | 179 | 53,7                    | 5,02        |
| 94000                   | 205 | 46,9                    | 4,38        |
| 94000                   | 222 | 43,4                    | 4,05        |
| 94000                   | 253 | 38,1                    | 3,56        |
| 94000                   | 284 | 33,9                    | 3,17        |
| 94000                   | 313 | 30,7                    | 2,87        |
| 94000                   | 357 | 27,0                    | 2,52        |
| 94000                   | 394 | 24,5                    | 2,29        |

## B2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7900                    | 5,01 | 120                     | 140                     |
| 7900                    | 5,49 | 110                     | 128                     |
| 7900                    | 6,39 | 94,4                    | 110                     |
| 7900                    | 7,06 | 85,4                    | 99,2                    |
| 7900                    | 7,66 | 78,7                    | 91,4                    |
| 7900                    | 8,82 | 68,4                    | 79,4                    |
| 7900                    | 10,1 | 59,6                    | 69,3                    |
| 7900                    | 10,9 | 55,2                    | 64,1                    |

## B2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16000                   | 4,87 | 250                     | 144                     |
| 16000                   | 5,33 | 228                     | 131                     |
| 16000                   | 6,21 | 196                     | 113                     |
| 16000                   | 6,86 | 178                     | 102                     |
| 16000                   | 7,88 | 155                     | 88,8                    |
| 16000                   | 8,57 | 142                     | 81,7                    |
| 16000                   | 9,82 | 124                     | 71,3                    |
| 16000                   | 10,6 | 115                     | 65,9                    |

## B2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25100                   | 5,00 | 383                     | 140                     |
| 25100                   | 5,48 | 350                     | 128                     |
| 25100                   | 6,38 | 301                     | 110                     |
| 25100                   | 7,05 | 272                     | 99,2                    |
| 25100                   | 8,10 | 237                     | 86,4                    |
| 25100                   | 8,81 | 218                     | 79,5                    |
| 25100                   | 10,1 | 190                     | 69,3                    |
| 25100                   | 10,9 | 176                     | 64,1                    |

## B2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 38600                   | 4,90 | 602                     | 143                     |
| 40400                   | 5,53 | 557                     | 126                     |
| 42200                   | 6,30 | 511                     | 111                     |
| 44000                   | 7,04 | 478                     | 99,5                    |
| 45400                   | 7,99 | 433                     | 87,6                    |
| 45400                   | 8,69 | 398                     | 80,5                    |
| 45400                   | 9,97 | 348                     | 70,2                    |
| 45400                   | 10,8 | 322                     | 65,0                    |

## B2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10100                   | 6,21 | 124                     | 113                     |
| 10100                   | 6,80 | 113                     | 103                     |
| 10100                   | 7,92 | 97,2                    | 88,4                    |
| 10100                   | 8,75 | 88,0                    | 80,0                    |
| 10100                   | 9,49 | 81,1                    | 73,8                    |
| 10100                   | 10,9 | 70,4                    | 64,1                    |
| 10100                   | 12,5 | 61,4                    | 55,9                    |
| 10100                   | 13,5 | 56,8                    | 51,7                    |

## B2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 20000                   | 6,14 | 249                     | 114                     |
| 20000                   | 6,73 | 227                     | 104                     |
| 20000                   | 7,83 | 195                     | 89,5                    |
| 20000                   | 8,65 | 176                     | 80,9                    |
| 20000                   | 9,94 | 154                     | 70,5                    |
| 20000                   | 10,8 | 141                     | 64,8                    |
| 20000                   | 12,4 | 123                     | 56,5                    |
| 20000                   | 13,4 | 114                     | 52,3                    |

## B2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 31900                   | 6,27 | 389                     | 112                     |
| 31900                   | 6,88 | 354                     | 102                     |
| 31900                   | 8,00 | 305                     | 87,5                    |
| 31900                   | 8,84 | 276                     | 79,2                    |
| 31900                   | 10,2 | 240                     | 68,9                    |
| 31900                   | 11,0 | 221                     | 63,4                    |
| 31900                   | 12,7 | 192                     | 55,3                    |
| 31900                   | 13,7 | 178                     | 51,2                    |

## B2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 49400                   | 6,23 | 606                     | 112                     |
| 51200                   | 7,04 | 555                     | 99,5                    |
| 53000                   | 8,01 | 506                     | 87,4                    |
| 54800                   | 8,95 | 467                     | 78,2                    |
| 55700                   | 10,2 | 418                     | 68,9                    |
| 55700                   | 11,1 | 385                     | 63,3                    |
| 55700                   | 12,7 | 336                     | 55,2                    |
| 55700                   | 13,7 | 311                     | 51,1                    |

## 20.5 BC GEAR REDUCER - 700 rpm

B2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 57600                   | 4,97 | 886                     | 141                     |
| 58500                   | 5,61 | 795                     | 125                     |
| 62000                   | 6,39 | 741                     | 110                     |
| 63800                   | 7,14 | 682                     | 98,1                    |
| 67200                   | 8,11 | 633                     | 86,3                    |
| 68100                   | 8,82 | 590                     | 79,4                    |
| 68100                   | 10,1 | 515                     | 69,3                    |
| 68100                   | 10,9 | 476                     | 64,1                    |

B2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 71600                   | 6,16 | 888                     | 114                     |
| 73300                   | 6,96 | 805                     | 101                     |
| 76900                   | 7,92 | 741                     | 88,4                    |
| 79500                   | 8,85 | 686                     | 79,1                    |
| 83000                   | 10,0 | 631                     | 69,7                    |
| 84800                   | 10,9 | 593                     | 64,1                    |
| 84800                   | 12,5 | 517                     | 55,9                    |
| 84800                   | 13,5 | 478                     | 51,7                    |

## 20.5 BC GEAR REDUCER - 700 rpm

## B3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 7900                    | 12,7 | 48,5                    | 55,1                    |
| 8230                    | 14,0 | 46,0                    | 50,1                    |
| 8820                    | 15,8 | 43,4                    | 44,2                    |
| 9490                    | 17,4 | 42,5                    | 40,2                    |
| 9740                    | 19,6 | 38,7                    | 35,6                    |
| 9740                    | 22,0 | 34,6                    | 31,9                    |
| 9740                    | 25,4 | 29,9                    | 27,5                    |
| 9740                    | 27,9 | 27,3                    | 25,1                    |
| 9740                    | 30,2 | 25,1                    | 23,1                    |
| 9740                    | 34,8 | 21,8                    | 20,1                    |
| 9740                    | 39,6 | 19,2                    | 17,7                    |
| 9740                    | 43,1 | 17,6                    | 16,2                    |
| 9740                    | 49,1 | 15,5                    | 14,2                    |
| 9740                    | 55,2 | 13,8                    | 12,7                    |
| 9580                    | 60,9 | 12,3                    | 11,5                    |
| 9240                    | 69,4 | 10,4                    | 10,1                    |

## B3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14300                   | 12,4 | 89,6                    | 56,3                    |
| 15300                   | 13,5 | 88,2                    | 51,8                    |
| 16600                   | 16,3 | 79,7                    | 43,0                    |
| 17700                   | 17,7 | 78,1                    | 39,6                    |
| 18200                   | 19,9 | 71,3                    | 35,1                    |
| 18200                   | 22,1 | 64,2                    | 31,6                    |
| 18200                   | 25,4 | 55,9                    | 27,5                    |
| 18200                   | 28,1 | 50,5                    | 24,9                    |
| 18200                   | 30,5 | 46,6                    | 22,9                    |
| 18200                   | 35,1 | 40,5                    | 19,9                    |
| 18200                   | 39,9 | 35,6                    | 17,5                    |
| 18200                   | 43,5 | 32,7                    | 16,1                    |
| 18200                   | 49,6 | 28,7                    | 14,1                    |
| 18200                   | 55,7 | 25,5                    | 12,6                    |
| 18000                   | 61,4 | 22,8                    | 11,4                    |
| 16800                   | 70,0 | 18,7                    | 10,00                   |

## B3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23500                   | 12,6 | 146                     | 55,8                    |
| 24800                   | 14,1 | 137                     | 49,5                    |
| 26000                   | 16,0 | 127                     | 43,9                    |
| 28500                   | 18,0 | 124                     | 39,0                    |
| 30000                   | 20,3 | 115                     | 34,6                    |
| 30000                   | 22,2 | 105                     | 31,5                    |
| 30000                   | 25,8 | 90,5                    | 27,1                    |
| 30000                   | 28,6 | 81,9                    | 24,5                    |
| 30000                   | 31,0 | 75,5                    | 22,6                    |
| 30000                   | 35,7 | 65,5                    | 19,6                    |
| 30000                   | 40,9 | 57,2                    | 17,1                    |
| 30000                   | 44,2 | 52,9                    | 15,8                    |
| 30000                   | 50,3 | 46,5                    | 13,9                    |
| 30000                   | 56,6 | 41,3                    | 12,4                    |
| 30000                   | 62,4 | 37,5                    | 11,2                    |
| 28600                   | 71,1 | 31,3                    | 9,85                    |

## B3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10100                   | 15,8 | 49,7                    | 44,2                    |
| 10600                   | 17,3 | 47,7                    | 40,4                    |
| 11100                   | 19,7 | 43,8                    | 35,5                    |
| 11900                   | 21,6 | 43,1                    | 32,4                    |
| 13000                   | 24,3 | 41,7                    | 28,7                    |
| 13000                   | 27,2 | 37,3                    | 25,7                    |
| 13000                   | 31,5 | 32,2                    | 22,2                    |
| 13000                   | 34,6 | 29,4                    | 20,3                    |
| 13000                   | 37,5 | 27,1                    | 18,7                    |
| 13000                   | 43,2 | 23,5                    | 16,2                    |
| 13000                   | 49,0 | 20,7                    | 14,3                    |
| 13000                   | 53,5 | 19,0                    | 13,1                    |
| 13000                   | 60,9 | 16,7                    | 11,5                    |
| 13000                   | 68,5 | 14,8                    | 10,2                    |
| 11800                   | 75,5 | 12,1                    | 9,27                    |
| 11800                   | 86,0 | 10,7                    | 8,14                    |

## B3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18100                   | 15,8 | 89,3                    | 44,4                    |
| 19400                   | 17,0 | 88,8                    | 41,1                    |
| 21000                   | 20,6 | 79,3                    | 33,9                    |
| 22300                   | 22,3 | 77,8                    | 31,4                    |
| 22800                   | 25,2 | 70,8                    | 27,8                    |
| 22800                   | 27,9 | 63,8                    | 25,1                    |
| 22800                   | 32,1 | 55,5                    | 21,8                    |
| 22800                   | 35,5 | 50,2                    | 19,7                    |
| 22800                   | 38,5 | 46,3                    | 18,2                    |
| 22800                   | 44,3 | 40,2                    | 15,8                    |
| 22800                   | 50,3 | 35,4                    | 13,9                    |
| 22800                   | 54,9 | 32,5                    | 12,8                    |
| 22800                   | 62,5 | 28,5                    | 11,2                    |
| 22800                   | 70,3 | 25,4                    | 9,96                    |
| 22600                   | 77,5 | 22,7                    | 9,04                    |
| 21200                   | 88,3 | 18,7                    | 7,93                    |

## B3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 29900                   | 15,7 | 149                     | 44,6                    |
| 31500                   | 17,7 | 139                     | 39,5                    |
| 33000                   | 19,9 | 129                     | 35,1                    |
| 35100                   | 22,5 | 122                     | 31,1                    |
| 36800                   | 25,4 | 113                     | 27,6                    |
| 36800                   | 27,8 | 103                     | 25,1                    |
| 36800                   | 32,4 | 88,5                    | 21,6                    |
| 36800                   | 35,8 | 80,1                    | 19,5                    |
| 36800                   | 38,8 | 73,9                    | 18,0                    |
| 36800                   | 44,7 | 64,1                    | 15,6                    |
| 36800                   | 51,3 | 55,9                    | 13,7                    |
| 36800                   | 55,4 | 51,8                    | 12,6                    |
| 36800                   | 63,1 | 45,5                    | 11,1                    |
| 36800                   | 71,0 | 40,4                    | 9,87                    |
| 36800                   | 78,2 | 36,7                    | 8,95                    |
| 36100                   | 89,1 | 31,6                    | 7,85                    |

B3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 44000                   | 12,3 | 278                     | 56,8        |
| 47600                   | 13,8 | 269                     | 50,6        |
| 50300                   | 15,5 | 253                     | 45,1        |
| 52100                   | 17,4 | 233                     | 40,2        |
| 53300                   | 19,7 | 211                     | 35,5        |
| 53300                   | 21,6 | 192                     | 32,3        |
| 53300                   | 25,2 | 165                     | 27,8        |
| 53300                   | 27,8 | 149                     | 25,1        |
| 53300                   | 32,0 | 130                     | 21,9        |
| 53300                   | 34,8 | 120                     | 20,1        |
| 53300                   | 39,9 | 104                     | 17,6        |
| 53300                   | 43,1 | 96,6                    | 16,2        |
| 53300                   | 49,1 | 84,8                    | 14,3        |
| 53300                   | 55,2 | 75,4                    | 12,7        |
| 53300                   | 60,8 | 68,4                    | 11,5        |
| 50400                   | 69,3 | 56,7                    | 10,1        |

B3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 55700                   | 15,9 | 273                     | 44,1        |
| 58400                   | 17,6 | 259                     | 39,8        |
| 61100                   | 20,0 | 238                     | 35,0        |
| 63500                   | 22,1 | 224                     | 31,7        |
| 64800                   | 25,1 | 201                     | 27,9        |
| 64800                   | 27,5 | 184                     | 25,4        |
| 64800                   | 32,0 | 158                     | 21,9        |
| 64800                   | 35,4 | 143                     | 19,8        |
| 64800                   | 40,7 | 124                     | 17,2        |
| 64800                   | 44,2 | 114                     | 15,8        |
| 64800                   | 50,7 | 99,8                    | 13,8        |
| 64800                   | 54,8 | 92,3                    | 12,8        |

B3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 66800                   | 12,5 | 417                     | 56,1        |
| 68500                   | 13,7 | 390                     | 51,0        |
| 70400                   | 16,4 | 336                     | 42,8        |
| 72800                   | 18,0 | 316                     | 38,9        |
| 76200                   | 20,3 | 293                     | 34,5        |
| 76200                   | 22,2 | 267                     | 31,5        |
| 76200                   | 25,9 | 230                     | 27,1        |
| 76200                   | 28,6 | 208                     | 24,5        |
| 76200                   | 32,8 | 181                     | 21,3        |
| 76200                   | 35,7 | 166                     | 19,6        |
| 76200                   | 40,9 | 145                     | 17,1        |
| 76200                   | 44,2 | 134                     | 15,8        |
| 76200                   | 50,4 | 118                     | 13,9        |
| 76200                   | 56,6 | 105                     | 12,4        |
| 64800                   | 62,4 | 81,1                    | 11,2        |
| 76200                   | 62,4 | 95,1                    | 11,2        |
| 64800                   | 70,1 | 72,1                    | 9,98        |
| 76200                   | 71,2 | 83,5                    | 9,84        |
| 64800                   | 77,3 | 65,4                    | 9,05        |
| 63000                   | 88,1 | 55,8                    | 7,95        |

B3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n2<br>[rpm] |
|-------------------------|------|-------------------------|-------------|
| 83500                   | 15,6 | 419                     | 45,0        |
| 85700                   | 17,0 | 393                     | 41,2        |
| 88200                   | 20,4 | 338                     | 34,4        |
| 90700                   | 22,3 | 317                     | 31,4        |
| 94900                   | 25,1 | 295                     | 27,9        |
| 94900                   | 27,5 | 269                     | 25,4        |
| 94900                   | 32,1 | 231                     | 21,8        |
| 94900                   | 35,4 | 209                     | 19,8        |
| 94900                   | 40,7 | 182                     | 17,2        |
| 94900                   | 44,3 | 167                     | 15,8        |
| 94900                   | 50,7 | 146                     | 13,8        |
| 94900                   | 54,8 | 135                     | 12,8        |
| 94900                   | 62,4 | 119                     | 11,2        |
| 94900                   | 70,2 | 105                     | 9,97        |
| 94900                   | 77,4 | 95,6                    | 9,04        |
| 94900                   | 88,2 | 83,9                    | 7,94        |

## 20.5 BC GEAR REDUCER - 700 rpm

## B4C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9740                    | 77,6 | 10,0                    | 9,02                    |
| 9740                    | 86,7 | 8,95                    | 8,07                    |
| 9740                    | 100  | 7,73                    | 6,97                    |
| 9740                    | 110  | 7,05                    | 6,36                    |
| 9740                    | 119  | 6,50                    | 5,86                    |
| 9740                    | 138  | 5,64                    | 5,09                    |
| 9740                    | 156  | 4,97                    | 4,48                    |
| 9740                    | 170  | 4,56                    | 4,11                    |
| 9740                    | 194  | 4,00                    | 3,61                    |
| 9740                    | 218  | 3,56                    | 3,21                    |
| 9740                    | 241  | 3,23                    | 2,91                    |
| 9740                    | 274  | 2,83                    | 2,55                    |
| 9410                    | 302  | 2,48                    | 2,32                    |

## B4C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18200                   | 79,3 | 18,3                    | 8,83                    |
| 18200                   | 88,6 | 16,4                    | 7,90                    |
| 18200                   | 103  | 14,2                    | 6,82                    |
| 18200                   | 112  | 12,9                    | 6,22                    |
| 18200                   | 122  | 11,9                    | 5,74                    |
| 18200                   | 141  | 10,3                    | 4,98                    |
| 18200                   | 160  | 9,10                    | 4,39                    |
| 18200                   | 174  | 8,34                    | 4,02                    |
| 18200                   | 198  | 7,32                    | 3,53                    |
| 18200                   | 223  | 6,52                    | 3,14                    |
| 18200                   | 246  | 5,91                    | 2,85                    |
| 18200                   | 280  | 5,19                    | 2,50                    |
| 17200                   | 309  | 4,45                    | 2,27                    |

## B4C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30000                   | 79,5 | 30,1                    | 8,81                    |
| 30000                   | 88,8 | 26,9                    | 7,88                    |
| 30000                   | 103  | 23,2                    | 6,80                    |
| 30000                   | 113  | 21,2                    | 6,20                    |
| 30000                   | 122  | 19,5                    | 5,72                    |
| 30000                   | 141  | 17,0                    | 4,97                    |
| 30000                   | 160  | 14,9                    | 4,37                    |
| 30000                   | 175  | 13,7                    | 4,01                    |
| 30000                   | 199  | 12,0                    | 3,52                    |
| 30000                   | 224  | 10,7                    | 3,13                    |
| 30000                   | 246  | 9,69                    | 2,84                    |
| 29700                   | 281  | 8,41                    | 2,49                    |
| 28600                   | 310  | 7,35                    | 2,26                    |

## B4C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13000                   | 96,2 | 10,8                    | 7,28                    |
| 13000                   | 107  | 9,65                    | 6,51                    |
| 13000                   | 124  | 8,33                    | 5,62                    |
| 13000                   | 136  | 7,60                    | 5,13                    |
| 13000                   | 148  | 7,01                    | 4,73                    |
| 13000                   | 171  | 6,08                    | 4,11                    |
| 13000                   | 194  | 5,36                    | 3,62                    |
| 13000                   | 211  | 4,91                    | 3,31                    |
| 13000                   | 241  | 4,31                    | 2,91                    |
| 13000                   | 270  | 3,84                    | 2,59                    |
| 13000                   | 298  | 3,48                    | 2,35                    |
| 13000                   | 340  | 3,05                    | 2,06                    |
| 12200                   | 374  | 2,59                    | 1,87                    |

## B4C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 22800                   | 99,9 | 18,2                    | 7,00                    |
| 22800                   | 112  | 16,3                    | 6,27                    |
| 22800                   | 129  | 14,1                    | 5,41                    |
| 22800                   | 142  | 12,8                    | 4,93                    |
| 22800                   | 154  | 11,8                    | 4,55                    |
| 22800                   | 177  | 10,3                    | 3,95                    |
| 22800                   | 201  | 9,05                    | 3,48                    |
| 22800                   | 220  | 8,29                    | 3,19                    |
| 22800                   | 250  | 7,28                    | 2,80                    |
| 22800                   | 281  | 6,48                    | 2,49                    |
| 22800                   | 310  | 5,87                    | 2,26                    |
| 22300                   | 353  | 5,02                    | 1,98                    |
| 21400                   | 389  | 4,39                    | 1,80                    |

## B4C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37100                   | 99,7 | 29,7                    | 7,02                    |
| 37100                   | 111  | 26,6                    | 6,28                    |
| 37100                   | 129  | 22,9                    | 5,43                    |
| 37100                   | 141  | 20,9                    | 4,95                    |
| 37100                   | 153  | 19,3                    | 4,56                    |
| 37100                   | 177  | 16,7                    | 3,96                    |
| 37100                   | 201  | 14,7                    | 3,49                    |
| 37100                   | 219  | 13,5                    | 3,20                    |
| 37100                   | 249  | 11,9                    | 2,81                    |
| 37100                   | 280  | 10,6                    | 2,50                    |
| 37100                   | 309  | 9,57                    | 2,27                    |
| 37100                   | 352  | 8,40                    | 1,99                    |
| 36100                   | 388  | 7,42                    | 1,80                    |

B4C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 51700                   | 80,9 | 50,9                    | 8,65                    |
| 51700                   | 89,9 | 45,9                    | 7,79                    |
| 51700                   | 103  | 39,9                    | 6,78                    |
| 51700                   | 114  | 36,1                    | 6,13                    |
| 51700                   | 124  | 33,3                    | 5,65                    |
| 51700                   | 143  | 28,9                    | 4,91                    |
| 51700                   | 162  | 25,5                    | 4,32                    |
| 51700                   | 177  | 23,3                    | 3,96                    |
| 51700                   | 201  | 20,5                    | 3,48                    |
| 51700                   | 226  | 18,2                    | 3,10                    |
| 51700                   | 249  | 16,5                    | 2,81                    |
| 51700                   | 284  | 14,5                    | 2,46                    |
| 50400                   | 313  | 12,8                    | 2,24                    |

B4C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 76200                   | 82,1 | 73,9                    | 8,52                    |
| 76200                   | 90,0 | 67,4                    | 7,78                    |
| 76200                   | 105  | 57,9                    | 6,68                    |
| 76200                   | 116  | 52,4                    | 6,05                    |
| 76200                   | 126  | 48,3                    | 5,57                    |
| 76200                   | 145  | 42,0                    | 4,84                    |
| 76200                   | 166  | 36,6                    | 4,22                    |
| 76200                   | 179  | 33,9                    | 3,91                    |
| 76200                   | 204  | 29,7                    | 3,43                    |
| 76200                   | 230  | 26,4                    | 3,04                    |
| 76200                   | 253  | 24,0                    | 2,77                    |
| 76200                   | 288  | 21,1                    | 2,43                    |
| 76200                   | 318  | 19,1                    | 2,20                    |

B4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 65500                   | 103 | 50,7                    | 6,80                    |
| 65500                   | 114 | 45,7                    | 6,13                    |
| 65500                   | 131 | 39,8                    | 5,33                    |
| 65500                   | 145 | 36,0                    | 4,82                    |
| 65500                   | 157 | 33,2                    | 4,45                    |
| 65500                   | 181 | 28,8                    | 3,86                    |
| 65500                   | 206 | 25,4                    | 3,40                    |
| 65500                   | 225 | 23,2                    | 3,12                    |
| 65500                   | 256 | 20,4                    | 2,74                    |
| 65500                   | 287 | 18,2                    | 2,43                    |
| 65500                   | 317 | 16,5                    | 2,21                    |
| 65500                   | 361 | 14,5                    | 1,94                    |
| 63000                   | 398 | 12,6                    | 1,76                    |

B4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 94900                   | 102 | 74,3                    | 6,88                    |
| 94900                   | 112 | 67,8                    | 6,27                    |
| 94900                   | 130 | 58,2                    | 5,39                    |
| 94900                   | 143 | 52,7                    | 4,88                    |
| 94900                   | 156 | 48,6                    | 4,50                    |
| 94900                   | 179 | 42,2                    | 3,91                    |
| 94900                   | 205 | 36,8                    | 3,41                    |
| 94900                   | 222 | 34,1                    | 3,15                    |
| 94900                   | 253 | 29,9                    | 2,77                    |
| 94900                   | 284 | 26,6                    | 2,46                    |
| 94900                   | 313 | 24,1                    | 2,23                    |
| 94900                   | 357 | 21,2                    | 1,96                    |
| 94900                   | 394 | 19,2                    | 1,78                    |

## 20.6 BC GEAR REDUCER - 500 rpm

## B2C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8010                    | 5,01 | 87,3                    | 99,9                    |
| 8010                    | 5,49 | 79,6                    | 91,1                    |
| 8010                    | 6,39 | 68,4                    | 78,3                    |
| 8010                    | 7,06 | 61,9                    | 70,8                    |
| 8010                    | 7,66 | 57,0                    | 65,3                    |
| 8010                    | 8,82 | 49,5                    | 56,7                    |
| 8010                    | 10,1 | 43,2                    | 49,5                    |
| 8010                    | 10,9 | 40,0                    | 45,8                    |

## B2C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 16200                   | 4,87 | 181                     | 103                     |
| 16200                   | 5,33 | 166                     | 93,8                    |
| 16200                   | 6,21 | 142                     | 80,6                    |
| 16200                   | 6,86 | 129                     | 72,9                    |
| 16200                   | 7,88 | 112                     | 63,5                    |
| 16200                   | 8,57 | 103                     | 58,3                    |
| 16200                   | 9,82 | 89,9                    | 50,9                    |
| 16200                   | 10,6 | 83,2                    | 47,1                    |

## B2C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 25500                   | 5,00 | 278                     | 100,0                   |
| 25500                   | 5,48 | 253                     | 91,2                    |
| 25500                   | 6,38 | 218                     | 78,4                    |
| 25500                   | 7,05 | 197                     | 70,9                    |
| 25500                   | 8,10 | 172                     | 61,7                    |
| 25500                   | 8,81 | 158                     | 56,8                    |
| 25500                   | 10,1 | 138                     | 49,5                    |
| 25500                   | 10,9 | 127                     | 45,8                    |

## B2C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 39200                   | 4,90 | 436                     | 102                     |
| 41000                   | 5,53 | 404                     | 90,4                    |
| 42800                   | 6,30 | 370                     | 79,4                    |
| 44600                   | 7,04 | 346                     | 71,1                    |
| 46000                   | 7,99 | 314                     | 62,5                    |
| 46000                   | 8,69 | 289                     | 57,5                    |
| 46000                   | 9,97 | 252                     | 50,2                    |
| 46000                   | 10,8 | 233                     | 46,4                    |

## B2C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10200                   | 6,21 | 89,9                    | 80,6                    |
| 10200                   | 6,80 | 82,0                    | 73,5                    |
| 10200                   | 7,92 | 70,4                    | 63,2                    |
| 10200                   | 8,75 | 63,7                    | 57,1                    |
| 10200                   | 9,49 | 58,8                    | 52,7                    |
| 10200                   | 10,9 | 51,0                    | 45,8                    |
| 10200                   | 12,5 | 44,5                    | 39,9                    |
| 10200                   | 13,5 | 41,2                    | 36,9                    |

## B2C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 20300                   | 6,14 | 180                     | 81,5                    |
| 20300                   | 6,73 | 164                     | 74,3                    |
| 20300                   | 7,83 | 141                     | 63,9                    |
| 20300                   | 8,65 | 128                     | 57,8                    |
| 20300                   | 9,94 | 111                     | 50,3                    |
| 20300                   | 10,8 | 102                     | 46,3                    |
| 20300                   | 12,4 | 89,3                    | 40,4                    |
| 20300                   | 13,4 | 82,6                    | 37,4                    |

## B2C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 32400                   | 6,27 | 282                     | 79,7                    |
| 32400                   | 6,88 | 257                     | 72,7                    |
| 32400                   | 8,00 | 221                     | 62,5                    |
| 32400                   | 8,84 | 200                     | 56,5                    |
| 32400                   | 10,2 | 174                     | 49,2                    |
| 32400                   | 11,0 | 160                     | 45,3                    |
| 32400                   | 12,7 | 139                     | 39,5                    |
| 32400                   | 13,7 | 129                     | 36,5                    |

## B2C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 50100                   | 6,23 | 439                     | 80,3                    |
| 51900                   | 7,04 | 402                     | 71,1                    |
| 53800                   | 8,01 | 366                     | 62,5                    |
| 55600                   | 8,95 | 339                     | 55,9                    |
| 56500                   | 10,2 | 303                     | 49,2                    |
| 56500                   | 11,1 | 279                     | 45,2                    |
| 56500                   | 12,7 | 243                     | 39,5                    |
| 56500                   | 13,7 | 225                     | 36,5                    |

## 20.6 BC GEAR REDUCER - 500 rpm

B2C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 58400                   | 4,97 | 642                     | 101                     |
| 59300                   | 5,61 | 576                     | 89,1                    |
| 62900                   | 6,39 | 537                     | 78,3                    |
| 64700                   | 7,14 | 494                     | 70,0                    |
| 68200                   | 8,11 | 458                     | 61,7                    |
| 69100                   | 8,82 | 427                     | 56,7                    |
| 69100                   | 10,1 | 373                     | 49,5                    |
| 69100                   | 10,9 | 345                     | 45,8                    |

B2C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 72600                   | 6,16 | 643                     | 81,2                    |
| 74400                   | 6,96 | 583                     | 71,9                    |
| 78000                   | 7,92 | 537                     | 63,2                    |
| 80600                   | 8,85 | 497                     | 56,5                    |
| 84200                   | 10,0 | 457                     | 49,8                    |
| 86100                   | 10,9 | 429                     | 45,8                    |
| 86100                   | 12,5 | 375                     | 39,9                    |
| 86100                   | 13,5 | 347                     | 36,9                    |

## 20.6 BC GEAR REDUCER - 500 rpm

## B3C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 8010                    | 12,7 | 35,1                    | 39,4                    |
| 8350                    | 14,0 | 33,3                    | 35,8                    |
| 8950                    | 15,8 | 31,5                    | 31,6                    |
| 9630                    | 17,4 | 30,8                    | 28,7                    |
| 9880                    | 19,6 | 28,0                    | 25,5                    |
| 9880                    | 22,0 | 25,1                    | 22,8                    |
| 9880                    | 25,4 | 21,7                    | 19,7                    |
| 9880                    | 27,9 | 19,7                    | 17,9                    |
| 9880                    | 30,2 | 18,2                    | 16,5                    |
| 9880                    | 34,8 | 15,8                    | 14,4                    |
| 9880                    | 39,6 | 13,9                    | 12,6                    |
| 9880                    | 43,1 | 12,8                    | 11,6                    |
| 9880                    | 49,1 | 11,2                    | 10,2                    |
| 9880                    | 55,2 | 9,97                    | 9,05                    |
| 9710                    | 60,9 | 8,88                    | 8,21                    |
| 9370                    | 69,4 | 7,52                    | 7,20                    |

## B3C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 14500                   | 12,4 | 64,9                    | 40,2                    |
| 15500                   | 13,5 | 63,9                    | 37,0                    |
| 16900                   | 16,3 | 57,7                    | 30,7                    |
| 18000                   | 17,7 | 56,6                    | 28,3                    |
| 18500                   | 19,9 | 51,6                    | 25,1                    |
| 18500                   | 22,1 | 46,5                    | 22,6                    |
| 18500                   | 25,4 | 40,5                    | 19,6                    |
| 18500                   | 28,1 | 36,6                    | 17,8                    |
| 18500                   | 30,5 | 33,8                    | 16,4                    |
| 18500                   | 35,1 | 29,3                    | 14,2                    |
| 18500                   | 39,9 | 25,8                    | 12,5                    |
| 18500                   | 43,5 | 23,7                    | 11,5                    |
| 18500                   | 49,6 | 20,8                    | 10,1                    |
| 18500                   | 55,7 | 18,5                    | 8,97                    |
| 18200                   | 61,4 | 16,5                    | 8,14                    |
| 17000                   | 70,0 | 13,6                    | 7,14                    |

## B3C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23900                   | 12,6 | 106                     | 39,8                    |
| 25100                   | 14,1 | 99,0                    | 35,4                    |
| 26400                   | 16,0 | 92,2                    | 31,3                    |
| 28900                   | 18,0 | 89,6                    | 27,8                    |
| 30400                   | 20,3 | 83,6                    | 24,7                    |
| 30400                   | 22,2 | 76,3                    | 22,5                    |
| 30400                   | 25,8 | 65,6                    | 19,3                    |
| 30400                   | 28,6 | 59,3                    | 17,5                    |
| 30400                   | 31,0 | 54,7                    | 16,1                    |
| 30400                   | 35,7 | 47,5                    | 14,0                    |
| 30400                   | 40,9 | 41,4                    | 12,2                    |
| 30400                   | 44,2 | 38,3                    | 11,3                    |
| 30400                   | 50,3 | 33,7                    | 9,93                    |
| 30400                   | 56,6 | 29,9                    | 8,84                    |
| 30400                   | 62,4 | 27,2                    | 8,01                    |
| 29000                   | 71,1 | 22,7                    | 7,03                    |

## B3C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 10200                   | 15,8 | 36,0                    | 31,6                    |
| 10700                   | 17,3 | 34,5                    | 28,9                    |
| 11200                   | 19,7 | 31,8                    | 25,3                    |
| 12100                   | 21,6 | 31,2                    | 23,2                    |
| 13200                   | 24,3 | 30,2                    | 20,5                    |
| 13200                   | 27,2 | 27,0                    | 18,4                    |
| 13200                   | 31,5 | 23,3                    | 15,9                    |
| 13200                   | 34,6 | 21,3                    | 14,5                    |
| 13200                   | 37,5 | 19,6                    | 13,3                    |
| 13200                   | 43,2 | 17,0                    | 11,6                    |
| 13200                   | 49,0 | 15,0                    | 10,2                    |
| 13200                   | 53,5 | 13,8                    | 9,35                    |
| 13200                   | 60,9 | 12,1                    | 8,21                    |
| 13200                   | 68,5 | 10,7                    | 7,30                    |
| 11900                   | 75,5 | 8,80                    | 6,62                    |
| 11900                   | 86,0 | 7,72                    | 5,81                    |

## B3C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18300                   | 15,8 | 64,7                    | 31,7                    |
| 19700                   | 17,0 | 64,3                    | 29,3                    |
| 21300                   | 20,6 | 57,5                    | 24,2                    |
| 22600                   | 22,3 | 56,4                    | 22,4                    |
| 23200                   | 25,2 | 51,3                    | 19,9                    |
| 23200                   | 27,9 | 46,2                    | 17,9                    |
| 23200                   | 32,1 | 40,2                    | 15,6                    |
| 23200                   | 35,5 | 36,4                    | 14,1                    |
| 23200                   | 38,5 | 33,6                    | 13,0                    |
| 23200                   | 44,3 | 29,1                    | 11,3                    |
| 23200                   | 50,3 | 25,7                    | 9,94                    |
| 23200                   | 54,9 | 23,5                    | 9,11                    |
| 23200                   | 62,5 | 20,7                    | 8,00                    |
| 23200                   | 70,3 | 18,4                    | 7,12                    |
| 22900                   | 77,5 | 16,5                    | 6,45                    |
| 21500                   | 88,3 | 13,5                    | 5,66                    |

## B3C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30300                   | 15,7 | 108                     | 31,9                    |
| 32000                   | 17,7 | 100                     | 28,2                    |
| 33500                   | 19,9 | 93,5                    | 25,1                    |
| 35600                   | 22,5 | 88,1                    | 22,2                    |
| 37300                   | 25,4 | 81,8                    | 19,7                    |
| 37300                   | 27,8 | 74,7                    | 18,0                    |
| 37300                   | 32,4 | 64,2                    | 15,4                    |
| 37300                   | 35,8 | 58,0                    | 14,0                    |
| 37300                   | 38,8 | 53,5                    | 12,9                    |
| 37300                   | 44,7 | 46,5                    | 11,2                    |
| 37300                   | 51,3 | 40,5                    | 9,75                    |
| 37300                   | 55,4 | 37,5                    | 9,02                    |
| 37300                   | 63,1 | 32,9                    | 7,92                    |
| 37300                   | 71,0 | 29,3                    | 7,05                    |
| 37300                   | 78,2 | 26,6                    | 6,39                    |
| 36600                   | 89,1 | 22,9                    | 5,61                    |

## 20.6 BC GEAR REDUCER - 500 rpm

## B3C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 44600                   | 12,3 | 202                     | 40,5                    |
| 48300                   | 13,8 | 195                     | 36,2                    |
| 51000                   | 15,5 | 183                     | 32,2                    |
| 52800                   | 17,4 | 169                     | 28,7                    |
| 54100                   | 19,7 | 153                     | 25,3                    |
| 54100                   | 21,6 | 139                     | 23,1                    |
| 54100                   | 25,2 | 120                     | 19,9                    |
| 54100                   | 27,8 | 108                     | 18,0                    |
| 54100                   | 32,0 | 94,2                    | 15,6                    |
| 54100                   | 34,8 | 86,7                    | 14,4                    |
| 54100                   | 39,9 | 75,6                    | 12,5                    |
| 54100                   | 43,1 | 70,0                    | 11,6                    |
| 54100                   | 49,1 | 61,4                    | 10,2                    |
| 54100                   | 55,2 | 54,6                    | 9,07                    |
| 54100                   | 60,8 | 49,6                    | 8,22                    |
| 51100                   | 69,3 | 41,1                    | 7,22                    |

## B3C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 67700                   | 12,5 | 302                     | 40,1                    |
| 69500                   | 13,7 | 282                     | 36,4                    |
| 71400                   | 16,4 | 243                     | 30,6                    |
| 73900                   | 18,0 | 229                     | 27,8                    |
| 77300                   | 20,3 | 212                     | 24,7                    |
| 77300                   | 22,2 | 194                     | 22,5                    |
| 77300                   | 25,9 | 166                     | 19,3                    |
| 77300                   | 28,6 | 151                     | 17,5                    |
| 77300                   | 32,8 | 131                     | 15,2                    |
| 77300                   | 35,7 | 121                     | 14,0                    |
| 77300                   | 40,9 | 105                     | 12,2                    |
| 77300                   | 44,2 | 97,3                    | 11,3                    |
| 77300                   | 50,4 | 85,4                    | 9,92                    |
| 77300                   | 56,6 | 76,0                    | 8,83                    |
| 65800                   | 62,4 | 58,7                    | 8,02                    |
| 77300                   | 62,4 | 68,9                    | 8,01                    |
| 65800                   | 70,1 | 52,2                    | 7,13                    |
| 77300                   | 71,2 | 60,5                    | 7,03                    |
| 65800                   | 77,3 | 47,4                    | 6,47                    |
| 63900                   | 88,1 | 40,4                    | 5,68                    |

## B3C 346

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 56500                   | 15,9 | 198                     | 31,5                    |
| 59200                   | 17,6 | 188                     | 28,5                    |
| 61900                   | 20,0 | 173                     | 25,0                    |
| 64400                   | 22,1 | 162                     | 22,6                    |
| 65800                   | 25,1 | 146                     | 19,9                    |
| 65800                   | 27,5 | 133                     | 18,2                    |
| 65800                   | 32,0 | 114                     | 15,6                    |
| 65800                   | 35,4 | 104                     | 14,1                    |
| 65800                   | 40,7 | 90,1                    | 12,3                    |
| 65800                   | 44,2 | 82,9                    | 11,3                    |
| 65800                   | 50,7 | 72,3                    | 9,87                    |
| 65800                   | 54,8 | 66,9                    | 9,13                    |

## B3C 406

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 84700                   | 15,6 | 303                     | 32,2                    |
| 86900                   | 17,0 | 285                     | 29,4                    |
| 89500                   | 20,4 | 245                     | 24,5                    |
| 92000                   | 22,3 | 230                     | 22,4                    |
| 96300                   | 25,1 | 213                     | 19,9                    |
| 96300                   | 27,5 | 195                     | 18,2                    |
| 96300                   | 32,1 | 167                     | 15,6                    |
| 96300                   | 35,4 | 151                     | 14,1                    |
| 96300                   | 40,7 | 132                     | 12,3                    |
| 96300                   | 44,3 | 121                     | 11,3                    |
| 96300                   | 50,7 | 106                     | 9,85                    |
| 96300                   | 54,8 | 97,8                    | 9,12                    |
| 96300                   | 62,4 | 85,9                    | 8,01                    |
| 96300                   | 70,2 | 76,4                    | 7,12                    |
| 96300                   | 77,4 | 69,3                    | 6,46                    |
| 96300                   | 88,2 | 60,8                    | 5,67                    |

## 20.6 BC GEAR REDUCER - 500 rpm

## B4C 176

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 9880                    | 77,6 | 7,25                    | 6,44                    |
| 9880                    | 86,7 | 6,49                    | 5,77                    |
| 9880                    | 100  | 5,60                    | 4,98                    |
| 9880                    | 110  | 5,11                    | 4,54                    |
| 9880                    | 119  | 4,71                    | 4,19                    |
| 9880                    | 138  | 4,09                    | 3,63                    |
| 9880                    | 156  | 3,60                    | 3,20                    |
| 9880                    | 170  | 3,30                    | 2,93                    |
| 9880                    | 194  | 2,90                    | 2,58                    |
| 9880                    | 218  | 2,58                    | 2,29                    |
| 9880                    | 241  | 2,34                    | 2,08                    |
| 9880                    | 274  | 2,05                    | 1,82                    |
| 9540                    | 302  | 1,80                    | 1,65                    |

## B4C 216

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 18500                   | 79,3 | 13,3                    | 6,31                    |
| 18500                   | 88,6 | 11,9                    | 5,64                    |
| 18500                   | 103  | 10,3                    | 4,87                    |
| 18500                   | 112  | 9,35                    | 4,44                    |
| 18500                   | 122  | 8,62                    | 4,10                    |
| 18500                   | 141  | 7,49                    | 3,56                    |
| 18500                   | 160  | 6,59                    | 3,13                    |
| 18500                   | 174  | 6,04                    | 2,87                    |
| 18500                   | 198  | 5,31                    | 2,52                    |
| 18500                   | 223  | 4,72                    | 2,24                    |
| 18500                   | 246  | 4,28                    | 2,03                    |
| 18500                   | 280  | 3,76                    | 1,79                    |
| 17500                   | 309  | 3,22                    | 1,62                    |

## B4C 266

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 30400                   | 79,5 | 21,8                    | 6,29                    |
| 30400                   | 88,8 | 19,5                    | 5,63                    |
| 30400                   | 103  | 16,8                    | 4,86                    |
| 30400                   | 113  | 15,3                    | 4,43                    |
| 30400                   | 122  | 14,1                    | 4,09                    |
| 30400                   | 141  | 12,3                    | 3,55                    |
| 30400                   | 160  | 10,8                    | 3,12                    |
| 30400                   | 175  | 9,91                    | 2,86                    |
| 30400                   | 199  | 8,70                    | 2,51                    |
| 30400                   | 224  | 7,74                    | 2,24                    |
| 30400                   | 246  | 7,02                    | 2,03                    |
| 30100                   | 281  | 6,09                    | 1,78                    |
| 29000                   | 310  | 5,33                    | 1,62                    |

## B4C 196

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 13200                   | 96,2 | 7,81                    | 5,20                    |
| 13200                   | 107  | 6,99                    | 4,65                    |
| 13200                   | 124  | 6,04                    | 4,02                    |
| 13200                   | 136  | 5,51                    | 3,66                    |
| 13200                   | 148  | 5,08                    | 3,38                    |
| 13200                   | 171  | 4,41                    | 2,93                    |
| 13200                   | 194  | 3,88                    | 2,58                    |
| 13200                   | 211  | 3,56                    | 2,37                    |
| 13200                   | 241  | 3,12                    | 2,08                    |
| 13200                   | 270  | 2,78                    | 1,85                    |
| 13200                   | 298  | 2,52                    | 1,68                    |
| 13200                   | 340  | 2,21                    | 1,47                    |
| 12400                   | 374  | 1,88                    | 1,34                    |

## B4C 246

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 23200                   | 99,9 | 13,2                    | 5,00                    |
| 23200                   | 112  | 11,8                    | 4,48                    |
| 23200                   | 129  | 10,2                    | 3,87                    |
| 23200                   | 142  | 9,30                    | 3,52                    |
| 23200                   | 154  | 8,57                    | 3,25                    |
| 23200                   | 177  | 7,44                    | 2,82                    |
| 23200                   | 201  | 6,55                    | 2,48                    |
| 23200                   | 220  | 6,01                    | 2,28                    |
| 23200                   | 250  | 5,28                    | 2,00                    |
| 23200                   | 281  | 4,69                    | 1,78                    |
| 23200                   | 310  | 4,26                    | 1,61                    |
| 22600                   | 353  | 3,64                    | 1,42                    |
| 21700                   | 389  | 3,18                    | 1,28                    |

## B4C 276

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 37700                   | 99,7 | 21,5                    | 5,02                    |
| 37700                   | 111  | 19,2                    | 4,49                    |
| 37700                   | 129  | 16,6                    | 3,88                    |
| 37700                   | 141  | 15,2                    | 3,53                    |
| 37700                   | 153  | 14,0                    | 3,26                    |
| 37700                   | 177  | 12,1                    | 2,83                    |
| 37700                   | 201  | 10,7                    | 2,49                    |
| 37700                   | 219  | 9,79                    | 2,28                    |
| 37700                   | 249  | 8,60                    | 2,01                    |
| 37700                   | 280  | 7,65                    | 1,78                    |
| 37700                   | 309  | 6,94                    | 1,62                    |
| 37700                   | 352  | 6,09                    | 1,42                    |
| 36600                   | 388  | 5,37                    | 1,29                    |

## 20.6 BC GEAR REDUCER - 500 rpm

## B4C 316

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 52500                   | 80,9 | 36,9                    | 6,18                    |
| 52500                   | 89,9 | 33,2                    | 5,56                    |
| 52500                   | 103  | 28,9                    | 4,84                    |
| 52500                   | 114  | 26,2                    | 4,38                    |
| 52500                   | 124  | 24,1                    | 4,04                    |
| 52500                   | 143  | 21,0                    | 3,51                    |
| 52500                   | 162  | 18,4                    | 3,09                    |
| 52500                   | 177  | 16,9                    | 2,83                    |
| 52500                   | 201  | 14,8                    | 2,49                    |
| 52500                   | 226  | 13,2                    | 2,21                    |
| 52500                   | 249  | 12,0                    | 2,01                    |
| 52500                   | 284  | 10,5                    | 1,76                    |
| 51100                   | 313  | 9,29                    | 1,60                    |

## B4C 396

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|------|-------------------------|-------------------------|
| 77300                   | 82,1 | 53,6                    | 6,09                    |
| 77300                   | 90,0 | 48,9                    | 5,55                    |
| 77300                   | 105  | 42,0                    | 4,77                    |
| 77300                   | 116  | 38,0                    | 4,32                    |
| 77300                   | 126  | 35,0                    | 3,98                    |
| 77300                   | 145  | 30,4                    | 3,46                    |
| 77300                   | 166  | 26,5                    | 3,02                    |
| 77300                   | 179  | 24,5                    | 2,79                    |
| 77300                   | 204  | 21,6                    | 2,45                    |
| 77300                   | 230  | 19,1                    | 2,17                    |
| 77300                   | 253  | 17,4                    | 1,98                    |
| 77300                   | 288  | 15,3                    | 1,73                    |
| 77300                   | 318  | 13,8                    | 1,57                    |

## B4C 346

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 66500                   | 103 | 36,7                    | 4,86                    |
| 66500                   | 114 | 33,1                    | 4,38                    |
| 66500                   | 131 | 28,8                    | 3,81                    |
| 66500                   | 145 | 26,1                    | 3,45                    |
| 66500                   | 157 | 24,0                    | 3,18                    |
| 66500                   | 181 | 20,9                    | 2,76                    |
| 66500                   | 206 | 18,4                    | 2,43                    |
| 66500                   | 225 | 16,8                    | 2,23                    |
| 66500                   | 256 | 14,8                    | 1,96                    |
| 66500                   | 287 | 13,2                    | 1,74                    |
| 66500                   | 317 | 11,9                    | 1,58                    |
| 66500                   | 361 | 10,5                    | 1,38                    |
| 63900                   | 398 | 9,14                    | 1,26                    |

## B4C 406

| Mn <sub>2</sub><br>[Nm] | i   | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] |
|-------------------------|-----|-------------------------|-------------------------|
| 96300                   | 102 | 53,8                    | 4,91                    |
| 96300                   | 112 | 49,1                    | 4,48                    |
| 96300                   | 130 | 42,2                    | 3,85                    |
| 96300                   | 143 | 38,2                    | 3,48                    |
| 96300                   | 156 | 35,2                    | 3,21                    |
| 96300                   | 179 | 30,6                    | 2,79                    |
| 96300                   | 205 | 26,7                    | 2,43                    |
| 96300                   | 222 | 24,7                    | 2,25                    |
| 96300                   | 253 | 21,7                    | 1,98                    |
| 96300                   | 284 | 19,3                    | 1,76                    |
| 96300                   | 313 | 17,5                    | 1,60                    |
| 96300                   | 357 | 15,3                    | 1,40                    |
| 96300                   | 394 | 13,9                    | 1,27                    |





**PBZ**



**PBH**



**PBC**

Pay special attention to the installation conditions as these are the principal cause of damage and downtime. When choosing the motor, consider the mounting position and presence, below the motor itself, of parts, things or materials which may be damaged by oil leaks, however limited in amount. The unit can only be mounted in the mounting position indicated on the nameplate: a different mounting position must be authorized by MOTOVARIO. Unless expressly requested, gear reducers are supplied dry, and it is the customer's responsibility to top up with oil up to the correct level. This should be done with the unit in the selected mounting position (using a filter with 25 µm grain) paying attention not to damage the seal when refitting it (or when smearing it with fresh sealing compound). If necessary, top up with oil of the same type up to correct level (see table LUBRICANTS RECOMMENDED BY MOTOVARIO). In case of unavailability, please contact MOTOVARIO TECHNICAL SERVICE. For possible use of different oil (after checking with the MOTOVARIO TECHNICAL SERVICE), replace completely and, in case of synthetic oil, only after washing the inside of the gear reducer. If you are using pressure-fed lubrication, fill the oil circuit and check oil level after gear reducer has been running for a short period. If there is an oil leak, find the cause before restoring the lubricant level. Do not dump the lubricant in the environment, adopt all the necessary environmental safety measures, dispose of the lubricant in compliance with the current regulations.

**Before the commissioning of the unit, carry out the following operations:**

- Check the nameplate data of the unit and/or electric motor;
- Make sure the equipment supplied corresponds to the equipment ordered;
- Fixing to the structure of the machine must be stable, vibration-free. The structure shall not be subject to torsional movements, must ensure a continuity of transmission of any electrical and electrostatic discharges. Otherwise provide a grounding system, via a cable securely attached to the mounting areas, making sure to remove any paint in the contact area and using conductors of adequate cross section;
- For fixing use the fixing screws of minimum 8.8 quality and be careful not to buckle the casings due to improper fixing, making sure that the support surface is coplanar to the fixing surface;
- Do not install the unit in mounting positions other than those stated in the order, since different positions provide different positions of the loading, unloading and oil level plugs, in addition to a different amount of lubricant;
- Check the position of the level plug. If the casing is provided with a hole with closed plug symmetric with respect to the level plug itself, if necessary, for level visibility, reverse their positions. Check the accessibility to oil loading/unloading plugs.
- Check the correct quantity of oil, according to the mounting position required. If the oil level of the unit is restored, do it according to the plug diagram and use oil of the same type indicated on the label.
- Replace, if any, the closing plug with the vent plug provided in the supplied kit, in the suitable mounting position indicated in the relevant drawings.
- Check for any leakage of lubricant;
- Eliminate, if possible, any traces of dirt from the shafts and from the areas around the sealing rings;
- Lubricate the contact surfaces to prevent oxidation or seizure;
- Check the static seals and the bolted joints;
- Do not install the unit in an environment with fumes or abrasive and/or corrosive dust;
- Install all the protections designed for the rotary organs so as to ensure the system safety according to the current rules;
- Check the correct rotation direction of the output shaft of the unit;
- In case of shaft mounting configuration it is recommended to use the torque arms that can be supplied by MOTOVARIO, specially designed;
- Ensure proper cooling of the motor through a good flow of air from the fan side;
- Avoid solar radiation or other heat sources, the cooling air temperature must never exceed 40 °C;
- Check that the assembly of the various parts (pulleys, sprockets, couplings, etc.) on shafts is performed by using the proper threaded holes or any other systems able to ensure a correct operation without risking damage to the bearings or the outer parts of the units.

For the operating fields with temperatures below 0 °C, please consider the following:

- Be sure to avoid shock loading as cast-iron may become brittle at temperatures below -15 °C.
- Right after start-up, the oil will be thick and this may lead to lubrication issues; dry-run the unit for several minutes.

If the temperature is lower than -30 °C or higher than 60 °C use special mixture seal rings.

Change the oil as specified in table OIL CHANGE INTERVAL; first bring gear reducer to a surface temperature lower than 40 °C (this will make it easier to drain oil, when you take all necessary precautions to avoid scalding).

- Locate the loading and unloading caps (the loading cap can match the vent cap or the dipstick); place a container of suitable capacity under the gear reducer at the unloading cap;
- Unscrew the loading and unloading caps paying attention to progressively reduce any internal overpressure;
- Completely drain the oil and collect it in the underlying container;
- Replace the seal of the unloading cap and tighten it again by applying the appropriate tightening torque (see table "OIL CAPS TIGHTENING TORQUE");
- Fill the gear reducer with new oil until the level reaches the centre line of the indicator cap or the top notch on the dipstick;
- Replace the seal of the loading cap and tighten it again by applying the appropriate tightening torque (see table "OIL CAPS TIGHTENING TORQUE");

- After about 30 minutes check the correctness of the level (if necessary, provide to its restoration) and any oil leaks. Clean the surface of the gear reducer with materials that do not generate electrostatic discharges;
- Dispose of used oil in accordance with current regulations.

Table OIL CHANGE INTERVAL

| Oil type      | Oil temperature [°C] |         |         |
|---------------|----------------------|---------|---------|
|               | < 65°                | 80°     | 95°     |
| Mineral oil   | 8000 h               | 4000 h  | 2000 h  |
| Synthetic oil | 25000 h              | 18000 h | 12500 h |

Table of OIL PLUGS TIGHTENING TORQUE  
with aluminum gasket and hexagonal wrench

| Plug     | Torque [Nm] |
|----------|-------------|
| GAS 3/8" | 30          |
| GAS 1/2" | 60          |
| GAS 3/4" | 70          |
| GAS 1"   | 70          |

Table of OIL PLUGS TIGHTENING TORQUE  
with aluminum gasket and allen key

| Plug     | Torque [Nm] |
|----------|-------------|
| GAS 3/8" | 20          |
| GAS 1/2" | 30          |
| GAS 3/4" | 40          |
| GAS 1"   | 50          |

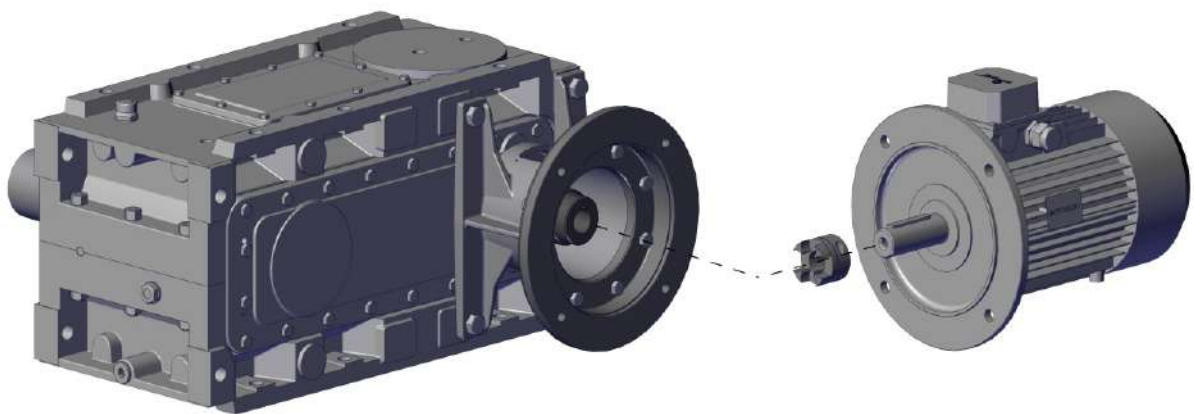
| Plug              | PZ - BZ               |
|-------------------|-----------------------|
| GAS 3/8"          | 179 - 199             |
| GAS 3/4"          | 219 - 249 - 269 - 279 |
| GAS 1" - GAS 3/4" | 319 - 349 - 399 - 409 |

| Plug     | PH - BH         |
|----------|-----------------|
| GAS 1/2" | 180 - 200       |
| GAS 3/4" | 225 - 250 - 280 |
| GAS 1"   | 355             |

| Plug | PC - BC   |
|------|-----------|
| M24  | 176 - 406 |

**Assembling motor on PAM flange**

If the unit is supplied without motor, it is necessary to follow these recommendation to ensure the correct assembly of the electric motor. Check that the tolerances for the motor shaft and flange correspond to the "standard". Carefully clean the shaft, spigot and surfaces of the flange removing traces of paint and dirt, and confirm the key is fitted correctly. Fit the half coupling to the motor shaft (see picture) taking care to ensure the motor shaft and bearings are not damaged by avoiding excessive force and where necessary using assembly equipment. Place the couplings elastic element onto the motor half coupling and position the motor up to the gear reducer ensuring the coupling element is aligned with the driven half coupling. Complete the assembly using the fixing bolts. Key-ways with tightened tolerances.



## 22.1 SYMBOLS AND FORMULAS

### 22.1.1 Symbols

| Physical dimension                                                                 | Symbol           | Symbol units of measure | Input           | Output            |
|------------------------------------------------------------------------------------|------------------|-------------------------|-----------------|-------------------|
| Power                                                                              | P                | [kW]                    | P <sub>1</sub>  | P <sub>2</sub>    |
| Requested power                                                                    | Pr               | [kW]                    | Pr <sub>1</sub> | Pr <sub>2</sub>   |
| Nominal power                                                                      | Pn               | [kW]                    | Pn <sub>1</sub> | Pn <sub>2</sub>   |
| Nominal thermal power                                                              | Pth              | [kW]                    |                 |                   |
| Torque                                                                             | M                | [Nm]                    | M <sub>1</sub>  | M <sub>2</sub>    |
| Nominal torque                                                                     | Mn               | [Nm]                    |                 | Mn <sub>2</sub>   |
| Peak torque                                                                        | M <sub>max</sub> | [Nm]                    |                 | M <sub>2max</sub> |
| Requested torque                                                                   | Mr               | [Nm]                    | Mr <sub>1</sub> | Mr <sub>2</sub>   |
| Speed                                                                              | n                | [rpm]                   | n <sub>1</sub>  | n <sub>2</sub>    |
| Load                                                                               | F                | [N]                     |                 |                   |
| Radial load                                                                        | Fr               | [N]                     | Fr <sub>1</sub> | Fr <sub>2</sub>   |
| Axial load                                                                         | Fa               | [N]                     | Fa <sub>1</sub> | Fa <sub>2</sub>   |
| Reduction ratio                                                                    | i                |                         |                 |                   |
| Nominal Reduction ratio                                                            | i <sub>n</sub>   |                         |                 |                   |
| Efficiency                                                                         | η                |                         |                 |                   |
| Service factor                                                                     | f <sub>s</sub>   |                         |                 |                   |
| Correction service factor to account for type of load and daily operating hours    | f <sub>sa</sub>  |                         |                 |                   |
| Correction service factor to account for number of starts per hours                | f <sub>sb</sub>  |                         |                 |                   |
| Correction service factor to account for type of motor                             | f <sub>sc</sub>  |                         |                 |                   |
| Correction thermal factor to account for ambient temperature and run-to-rest ratio | f <sub>ta</sub>  |                         |                 |                   |
| Correction thermal factor to account for cooling systems                           | f <sub>tb</sub>  |                         |                 |                   |
| Correction factor to account for ambient and operating temperature                 | f <sub>tc</sub>  |                         |                 |                   |
| Correction factor to account for airflow speed around gear reducer                 | f <sub>tv</sub>  |                         |                 |                   |
| Correction factor to account for input speed n <sub>1</sub>                        | f <sub>tn</sub>  |                         |                 |                   |
| Correction thermal factor to account for cooling coil                              | f <sub>ts</sub>  |                         |                 |                   |
| Additional thermal capacity<br>Water/Oil and Air/Oil                               | Pta              | [kW]                    |                 |                   |
| Correction factor to account for mounting position                                 | Fmp              |                         |                 |                   |
| Static                                                                             | s                |                         |                 |                   |
| Dynamic                                                                            | d                |                         |                 |                   |
| Calculated                                                                         | c                |                         |                 |                   |
| Maximum                                                                            | max              |                         |                 |                   |
| Minimum                                                                            | min              |                         |                 |                   |
| Moment of inertia                                                                  | J                | [kgm <sup>2</sup> ]     | J <sub>1</sub>  | J <sub>2</sub>    |
| Ambient temperature                                                                | T <sub>amb</sub> | [°C]                    |                 |                   |
| Surface temperature of gear reducer                                                | T <sub>s</sub>   | [°C]                    |                 |                   |
| Oil temperature                                                                    | T <sub>o</sub>   | [°C]                    |                 |                   |
| Dimension                                                                          |                  | [mm]                    |                 |                   |

## 22.1 SYMBOLS AND FORMULAS

## 22.1.2 Formulas

| GEAR REDUCER                                                                                                      |                                                    |                       |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------|
| Starting or stopping time                                                                                         | $t = v / a$                                        | [s]                   |
| Velocity in rotary motion                                                                                         | $v = \pi * d * n / 60$<br>$v = \omega * r$         | [m/s]                 |
| Speed velocity<br>Angular velocity                                                                                | $n = 60 * v / (\pi * d)$<br>$\omega = v / r$       | [rpm]<br>[rad/s]      |
| Acceleration or deceleration                                                                                      | $a = v / t$                                        | [m/s <sup>2</sup> ]   |
| Angular acceleration                                                                                              | $\alpha = n / (9,55 * t)$<br>$\alpha = \omega / t$ | [rad/s <sup>2</sup> ] |
| Starting or stopping distance (according to acceleration)                                                         | $s = a * t^2 / 2$                                  | [m]                   |
| Horizontal translation force                                                                                      | $F = \mu * m * g$                                  | [N]                   |
| Vertical translation force (lifting)                                                                              | $F = m * g$                                        |                       |
| Inclined plane translation force                                                                                  | $F = m * g (\mu * \cos\beta + \sin\beta)$          |                       |
| m= mass [kg]; g= gravitational acceleration [m/s <sup>2</sup> ]; μ= friction coefficient; β= angle of inclination |                                                    |                       |
| Moment of inertia                                                                                                 | $J = m * v^2 / \omega^2$                           | [kgm <sup>2</sup> ]   |
| Torque                                                                                                            | $M = F * d / 2$<br>$M = J * \omega / t$            | [Nm]                  |

| MOTOR and GEARMOTOR                                |                                                         |       |
|----------------------------------------------------|---------------------------------------------------------|-------|
| Starting time                                      | $t_a = (J_{ext} + J_m) * n_n / 9,55 + (M_{peak} - M_r)$ | [s]   |
| Braking time                                       | $t_s = (J_{ext} + J_m) * n_n / 9,55 + (M_{peak} + M_r)$ | [s]   |
| Motor rotation angle during starting               | $\varphi = n_n * t_a / 19,1$                            | [rad] |
| Motor rotation angle during braking                | $\varphi = n_n * t_s / 19,1$                            | [rad] |
| Power available at the shaft of single phase motor | $P = V * I * \eta * \cos\omega$                         | [W]   |
| Power available at the shaft of three phase motor  | $P = 1,73 * V * I * \eta * \cos\omega$                  | [W]   |

| RUNNING at 60Hz                                                                                                                                                     |                                                               |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------|
| Speed velocity at 60Hz                                                                                                                                              | $n_{60Hz} = 1,2 * n_{50Hz}$                                   | [rpm] |
| Power at 60Hz                                                                                                                                                       | $P_{1\ 60Hz} = P_{1\ 50Hz} * V_{60Hz} / V_{50Hz}$             | [kW]  |
| If input voltage at 60 Hz ( $V_{60Hz}$ ) corresponds to winding voltage at 50 Hz ( $V_{50Hz}$ ), power doesn't change<br>i.e. $P_{1\ 60Hz} = P_{1\ 50Hz}$           |                                                               |       |
| If input voltage at 60 Hz ( $V_{60Hz}$ ) is 20% higher than winding voltage at 50 Hz ( $V_{50Hz}$ ), power increases by 20%<br>i.e. $P_{1\ 60Hz} = 1,2 P_{1\ 50Hz}$ |                                                               |       |
| Torque at 60Hz                                                                                                                                                      | $M_{60Hz} = M_{50Hz} * P_{1\ 60Hz} / (1,2 * P_{1\ 50Hz})$     | [Nm]  |
| Service factor at 60Hz                                                                                                                                              | $f.s_{60Hz} = f.s_{50Hz} * 1,175 * P_{1\ 50Hz} / P_{1\ 60Hz}$ | -     |

**ATTENTION!**

The revised data and information, shown in this technical catalogue, replaces the data of the previous editions. Old data is now obsolete. All technical data, dimensions, weights in this catalogue are subject to changes without warning. Illustrations are not binding. You can find the above mentioned data and information on our site [www.motovario.com](http://www.motovario.com); please periodically consult the technical documentation on the web site to be always updated about possible modifications of performances and characteristics of the product.

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