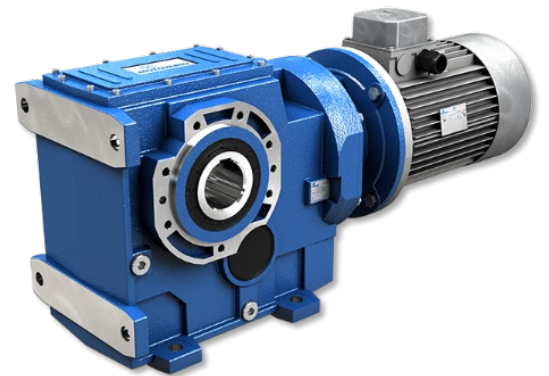


# TECHNICAL CATALOGUE



## HELICAL BEVEL GEARED MOTORS

STANDARD **IEC**



## 1. GENERAL INFORMATION

|            |                                   |          |
|------------|-----------------------------------|----------|
| <b>1.1</b> | <b>SYMBOLS AND FORMULAS</b> ..... | <b>4</b> |
| 1.1.1      | Symbols .....                     | 4        |
| 1.1.2      | Formulas .....                    | 5        |
| <b>1.2</b> | <b>PRODUCT SELECTION</b> .....    | <b>6</b> |
| <b>1.3</b> | <b>SERVICE FACTOR</b> .....       | <b>7</b> |
| <b>1.4</b> | <b>INSTALLATION</b> .....         | <b>8</b> |

## 2. PRODUCT INFORMATION

|             |  |           |
|-------------|--|-----------|
| <b>2.1</b>  | <b>DESIGN FEATURES</b> .....           | <b>9</b>  |
| <b>2.2</b>  | <b>TYOLOGY</b> .....                   | <b>10</b> |
| 2.2.1       | Designation .....                      | 10        |
| 2.2.2       | Versions .....                         | 11        |
| 2.2.3       | Modularity .....                       | 15        |
| <b>2.3</b>  | <b>MOUNTING POSITIONS</b> .....        | <b>17</b> |
| 2.3.1       | Mounting positions .....               | 17        |
| 2.3.2       | Position of terminal box .....         | 17        |
| <b>2.4</b>  | <b>THERMAL POWER</b> .....             | <b>18</b> |
| 2.4.1       | Information .....                      | 18        |
| 2.4.2       | Verification .....                     | 18        |
| <b>2.5</b>  | <b>DIRECTION OF ROTATION</b> .....     | <b>19</b> |
| <b>2.6</b>  | <b>CRITICAL APPLICATIONS</b> .....     | <b>20</b> |
| 2.6.1       | Critical applications .....            | 20        |
| 2.6.2       | Information .....                      | 20        |
| <b>2.7</b>  | <b>MOTOR FLANGE AVAILABILITY</b> ..... | <b>21</b> |
| 2.7.1       | BA Motor flange availability .....     | 21        |
| 2.7.2       | B Motor flange availability .....      | 22        |
| <b>2.8</b>  | <b>OUTPUT SHAFT BEARINGS</b> .....     | <b>25</b> |
| <b>2.9</b>  | <b>OVERHUNG LOAD</b> .....             | <b>26</b> |
| 2.9.1       | Information .....                      | 26        |
| 2.9.2       | Input .....                            | 26        |
| 2.9.3       | Output .....                           | 27        |
| <b>2.10</b> | <b>LUBRICATION</b> .....               | <b>28</b> |

|             |                                 |           |
|-------------|---------------------------------|-----------|
| 2.10.1      | Information .....               | 28        |
| 2.10.2      | Lubricants .....                | 28        |
| 2.10.3      | Special lubricants .....        | 29        |
| 2.10.4      | Quantity .....                  | 30        |
| <b>2.11</b> | <b>MOMENTS OF INERTIA .....</b> | <b>31</b> |

### 3. DIMENSIONS

|            |  |           |
|------------|--|-----------|
| <b>3.1</b> | <b>REDUCERS/GEARED MOTORS .....</b>                                    | <b>32</b> |
| 3.1.1      | BA.2 .....   | 32        |
| 3.1.2      | BA.3 .....   | 33        |
| 3.1.3      | CBA.2 .....  | 34        |
| 3.1.4      | CBA.3 .....  | 35        |
| 3.1.5      | IBA.2 .....  | 36        |
| 3.1.6      | IBA.3 .....  | 37        |
| 3.1.7      | B .....  | 38        |
| 3.1.8      | CB .....   | 40        |
| 3.1.9      | IB .....   | 42        |
| <b>3.2</b> | <b>ELECTRIC MOTORS .....</b>   | <b>44</b> |
| 3.2.1      | Electric motors .....  | 44        |
| 3.2.2      | Standard high efficiency (TS), high (TH) and premium (TP) motors ..... | 46        |
| 3.2.3      | Nominal power - [kW] .....   | 47        |
| <b>3.3</b> | <b>WEIGHTS .....</b>   | <b>48</b> |
| <b>3.4</b> | <b>SHAFT END .....</b>   | <b>49</b> |

### 4. ACCESSORIES AND OPTIONS

|            |   |           |
|------------|---|-----------|
| <b>4.1</b> | <b>LOW SPEED SHAFTS .....</b>                 | <b>50</b> |
| <b>4.2</b> | <b>OUTPUT FLANGE .....</b>                    | <b>51</b> |
| 4.2.1      | BA .....                                      | 51        |
| 4.2.2      | B .....                                       | 52        |
| <b>4.3</b> | <b>SHAFT MOUNTING FASTENING .....</b>         | <b>53</b> |
| 4.3.1      | Torque arm: BA Mounting position .....        | 53        |
| 4.3.2      | Torque arm: BA Dimensions .....               | 53        |
| 4.3.3      | Torque arm: B Mounting position .....         | 54        |
| 4.3.4      | Torque arm: B063-083-103-123 Dimensions ..... | 55        |
| 4.3.5      | Torque arm: B143-153-163 Dimensions .....     | 55        |

|     |   |    |
|-----|---|----|
| 4.4 | OUTPUT SHAFT COVER .....                    | 56 |
| 4.5 | BACKSTOP DEVICE .....                       | 57 |
| 4.6 | OUTPUT SHAFT WITH SHRINK DISC .....         | 58 |
| 4.7 | REINFORCED OIL SEALS FOR OUTPUT SHAFT ..... | 59 |
| 4.8 | ASSEMBLING/DISASSEMBLING KIT .....          | 60 |
| 4.9 | MACHINE AXIS .....                          | 61 |

## 5. PERFORMANCES

|     |                                      |     |
|-----|--------------------------------------|-----|
| 5.1 | B/BA GEARED MOTORS (50Hz) .....      | 62  |
| 5.2 | IB/IBA GEAR REDUCER - 1750 rpm ..... | 146 |
| 5.3 | IB/IBA GEAR REDUCER - 1400 rpm ..... | 154 |
| 5.4 | IB/IBA GEAR REDUCER - 1140 rpm ..... | 162 |
| 5.5 | IB/IBA GEAR REDUCER - 900 rpm .....  | 170 |
| 5.6 | IB/IBA GEAR REDUCER - 700 rpm .....  | 178 |
| 5.7 | IB/IBA GEAR REDUCER - 500 rpm .....  | 186 |

## 6. SALES CONDITIONS

|     |                        |     |
|-----|------------------------|-----|
| 6.1 | SALES CONDITIONS ..... | 194 |
|-----|------------------------|-----|

## 1.1.1 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> |
| Torque              | M                | [Nm]                    | M <sub>1</sub>  | M <sub>2</sub>  |
| Nominal torque      | Mn               | [Nm]                    |                 | Mn <sub>2</sub> |
| Requested torque    | Mr               | [Nm]                    | Mr <sub>1</sub> | Mr <sub>2</sub> |
| Speed               | n                | [rpm]                   | n <sub>1</sub>  | n <sub>2</sub>  |
| Force               | 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                |                         |                 |                 |
| Dynamic efficiency  | η <sub>d</sub>   |                         |                 |                 |
| Service factor      | f.s.             |                         |                 |                 |
| Static              | s                |                         |                 |                 |
| Dynamic             | d                |                         |                 |                 |
| Calculated          | c                |                         |                 |                 |
| Maximum             | max              |                         |                 |                 |
| Minimum             | min              |                         |                 |                 |
| Moment of inertia   | J                | [kgm <sup>2</sup> ]     | J <sub>1</sub>  |                 |
| Ambient temperature | T <sub>amb</sub> | [°C]                    |                 |                 |
| Dimension           |                  | [mm]                    |                 |                 |

## 1.1.2 Formulas

| 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 according to a starting / stopping time  | $a = v / t$  | [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 / deceleration or angular velocity)                | $s = a * t^2 / 2$<br>$s = v * t / 2$               | [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= gravity 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 <sub>60Hz</sub> ) corresponds to winding voltage at 50 Hz (V <sub>50Hz</sub> ), power doesn't change<br>$P_{1\ 60Hz} = P_{1\ 50Hz}$           |   |       |
| If input voltage at 60 Hz (V <sub>60Hz</sub> ) is 20% higher than winding voltage at 50 Hz (V <sub>50Hz</sub> ), power increases by 20%<br>$P_{1\ 60Hz} = 1,2 P_{1\ 50Hz}$ |   |       |
| Torque at 60Hz   | $M_{60Hz} = M_{50Hz} * P_{1\ 60Hz} / (1,2 * P_{1\ 50Hz})$     | [Nm]  |
| Service factor at 60Hz   | $f.s_{60Hz} = f.s_{50Hz} * 1,175 * P_{1\ 50Hz} / P_{1\ 60Hz}$ | -     |

For correctly selecting a gear reducer or geared motor, several essential pieces of data are required:

- A. The rotational input speed to the gear reducer ( $n_1$ ) and the rotational output speed ( $n_2$ ). Through these two values it is possible to calculate the reduction ratio ( $i$ ) of the gear reducer using the following formula:  $i = n_1/n_2$
- B. The torque required by the application ( $Mr_2$ ).

The geared motor or gear reducer can be selected once this data is known.

This guide helps you to select the right product in just a few steps:

#### Geared motor selection

1. Determine the application's actual service factor (**s.f.**). This parameter depends on the type of load of the powered machine, the number of starts per hour and the hours of operation (refer to the "Service factor" paragraph).
2. Calculate the input power  $Pr_1$  using the required torque value  $Mr_2$ , the speed  $n_2$  and dynamic efficiency value.  $Pr_1 = (Mr_2 * n_2) / (9550 * \eta_d)$ . The dynamic efficiency value depends on the type of gear reducer and on the number of gear reduction stages. (To calculate the efficiency value see its page).
3. Consult the geared motor performance tables and identify a normalised power value  $Pn_1$  exceeding the required power  $Pr_1$ , such that:  $Pn_1 \geq Pr_1$
4. Once the suitable nominal power has been identified, select the geared motor capable of generating the rotational speed closest to the desired  $n_2$  value and with service factor s.f. greater or equal to that required by the application.

In the geared motor selection tables the combinations include 2-pole, 4-pole and 6-pole motors powered at 50Hz.

#### Gear reducer selection

1. Determine the application's service factor (**s.f.**) (consult to the "Service factor" paragraph on its page) .
2. Calculate the reduction ratio  $i$  from the requested output speed  $n_2$  and from the input speed  $n_1$ .  $i = n_1/n_2$
3. Calculate the torque  $M_{c_2}$  for selecting the gear reducer through the torque required by the application  $Mr_2$  and the service factor s.f.:  $M_{c_2} = Mr_2 * (s.f.)$
4. Consult the Gear Reducer Performance tables looking for the reducer that, with the reduction ratio closer to the calculated one, has a nominal torque  $Mn_2$  so that:  $Mn_2 \geq M_{c_2}$

#### Checks

Once the gear reducer or geared motor has been selected, the following checks should be performed:

##### A. Thermal power

The gear reducer's thermal power must be equal to or greater than the installed mechanical power, or the power required by the application according to the indications contained in the section (refer to the "Thermal power" paragraph).

##### B. Maximum torque

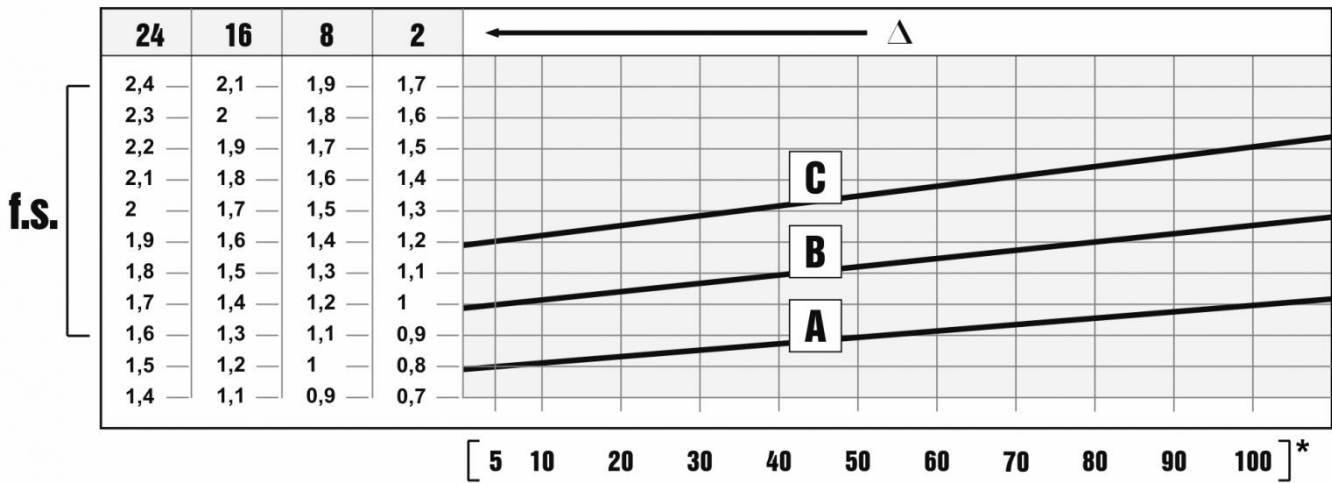
Generally, the maximum torque (peak instantaneous load) that can be applied to the gear reducer must not exceed 200% of the nominal torque  $Mn_2$  (ATEX -  $M_{2max}$ ).

##### C. Radial loads

1. Verify that the radial loads acting on the input and/or output shafts are within with the values indicated in the catalogue. If they exceed these values, increase the size of the gear reducer or modify the external load capacity. During the checking phase, it is important to remember that the values indicated in the catalogue refer to loads acting on the mid-point of the shaft protrusion, therefore, if the load is applied to a different position, appropriate formulas must be used to calculate the admissible load in the desired position (refer to the "Radial loads" paragraph).
2. If accessory output shafts are present, make sure that the applied load is compatible with shaft size. If help is needed: contact MOTOVARIO TECHNICAL SERVICE.

D. If an electric motor is going to be fitted to the selected gear reducer, check for its applicability by referring to the configuration table (see paragraph "Motor flange availability"). From IEC 180 motors, verify if necessary to support the motor with feet. In case of need please contact MOTOVARIO TECHNICAL SERVICE.





The service factor (f.s.) depends on the operating conditions the gear reducer is subjected to. The parameters that need to be taken into consideration to select the most adequate service factor correctly comprise:

- type of load of the operated machine : A - B - C
- length of daily operating time: hours/day ( $\Delta$ )
- start-up frequency: starts/hour (\*)

**LOAD:**

- **A** - uniform =  $f_a \leq 0,3$
- **B** - moderate shocks =  $f_a \leq 3$
- **C** - heavy shocks =  $f_a \leq 10$

$f_a = J_e/J_m$

- $J_e$  [ $\text{kgm}^2$ ] moment of reduced external inertia at the drive-shaft
- $J_m$  [ $\text{kgm}^2$ ] moment of inertia of motor

If  $f_a > 10$  call MOTOVARIO TECHNICAL SERVICE.

- A. Screw feeders for light materials, fans, assembly lines, conveyor belts for light materials, small mixers, lifts, cleaning machines, fillers, control machines.
- B. Winding devices, woodworking machine feeders, goods lifts, balancers, threading machines, medium mixers, conveyor belts for heavy materials, winches, sliding doors, fertilizer scrapers, packing machines, concrete mixers, crane mechanisms, milling cutters, folding machines, gear pumps.
- C. Mixers for heavy materials, shears, presses, centrifuges, rotating supports, winches and lifts for heavy materials, grinding lathes, stone mills, bucket elevators, drilling machines, hammer mills, cam presses, folding machines, turntables, tumbling barrels, vibrators, shredders.

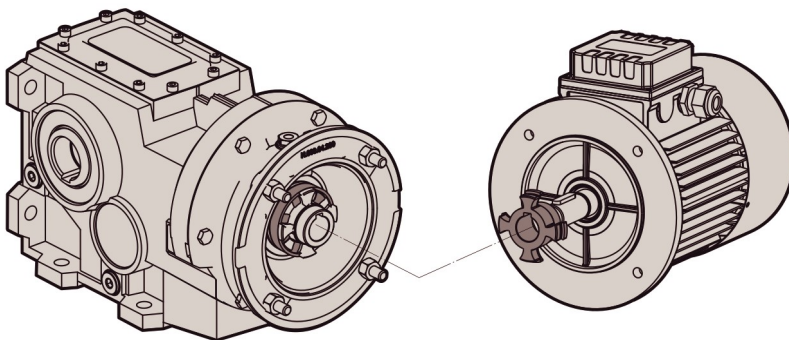
To install the gear reducer it is necessary to note the following recommendations:

- Check the correct direction of rotation of the gear reducer output shaft before fitting the unit to the machine.
- In the case of particularly lengthy periods of storage (4/6 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommended to change it since the rubber could stick to the shaft or may even have lost the elasticity it needs to function properly.
- Whenever possible, protect the gear reducer against solar radiation and bad weather.
- Ensure the motor cools correctly by ensuring good passage of air from the fan side.
- In the case of ambient temperatures  $< -5^{\circ}\text{C}$  or  $> +40^{\circ}\text{C}$  call MOTOVARIO TECHNICAL SERVICE.
- The various parts (pulleys, gear wheels, couplings, shafts, etc.) must be mounted on the shafts using special threaded holes or other systems that anyhow ensure correct operation without risking damage to the bearings or external parts of the units. Lubricate the surfaces in contact to avoid seizure or oxidation.
- Painting must definitely not go over rubber parts and the holes on the breather plugs, if any.
- For units equipped with oil plugs, replace the closed plug used for shipping with the special breather plug.
- Check the correct level of the lubricant through the indicator, if there is one.
- Starting must take place gradually, without immediately applying the maximum load.
- When there are parts, objects or materials under the motor drive that can be damaged by even limited spillage of oil, special protection should be fitted.

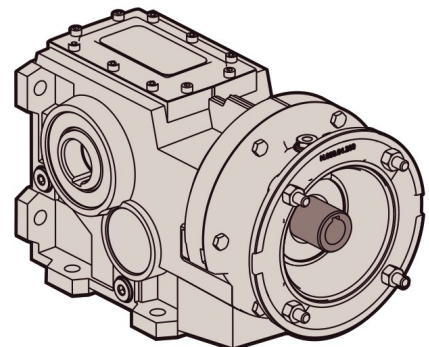
#### Assembling motor on pam flange

When 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/sleeve 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 unit ensuring the coupling element is aligned with the driven half coupling. Complete the assembly using the fixing bolts. Key-ways with tightened tolerances.

Flexible joint



PAM Sleeve



Motovario products are supplied with the following surface treatment features:

#### Die-cast aluminium alloy cases for gears

Die-cast materials undergo the following surface cleaning operations:

- De-burring by means of a mechanically operated shearing system.
- Accurate shot-peening.
- Painting.
- Washing and passivation.

#### Grey-coloured cast-iron cases for gears

- Die-cast materials are always painted.

**Grey-coloured cast-iron inspection cover:** The gear reducer B... series sizes 140, 150, 160 are supplied with grey-coloured cast-iron closing cover and a metal nameplate printed.



#### Painting specifications:

- Orange-peel blue epoxy-polyester RAL 5010. Polyester resin based heat-hardening powders, altered with epoxy resins.

**Mechanical properties:** Tests carried out onto degreased Unichim white lattens (film thickness: 60 microns) comply with the following specifications: adherence (ISO2409).

**Heat resistance:** 24 HOURS AT 150°C.

**Corrosion strength:** ASTM B 117/97 salt fog from 100 to 500 hours depending on the support's preliminary treatment.

#### Performance:

- Loading capacity in accordance with DIN 3990, ISO 6336, AGMA 2101, ISO 10300, DIN 3991, ISO 281, DIN 743

#### Efficiency $\eta$ :

- The efficiency is the ratio between the output power  $P_2$  and the power absorbed by the gear reducer  $P_1$ :  $\eta = P_2/P_1$

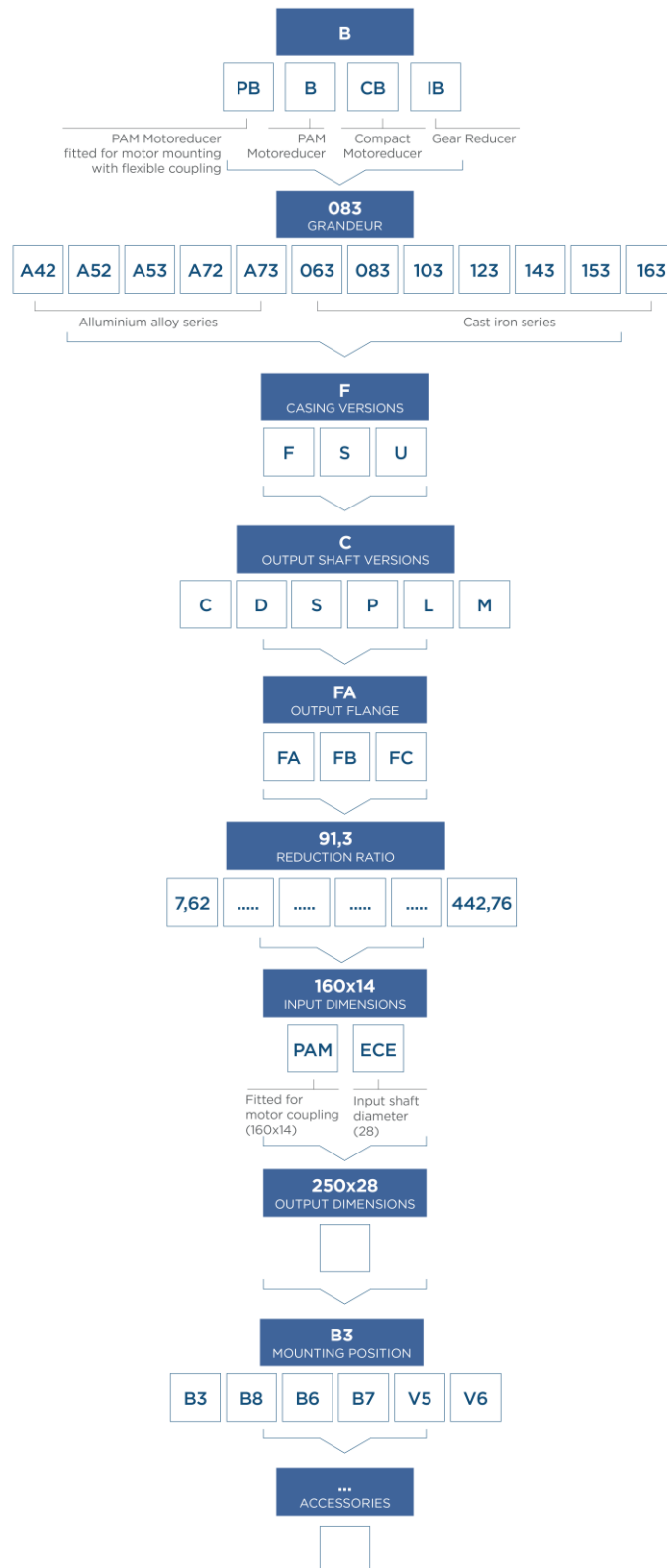
B/BA-range helical bevel gear reducers have an average value equal to:

B..3 stages = 0,9

BA.2 stages = 0,95

BA.3 stages = 0,9

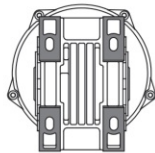
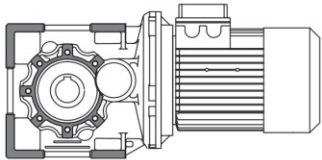
## 2.2.1 Designation



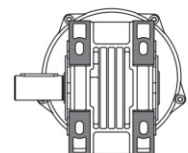
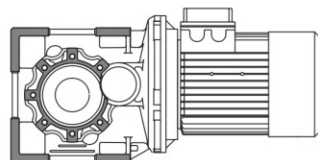
### 2.2.2 Versions

A40-A50-A70

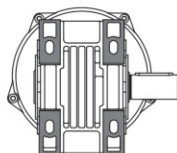
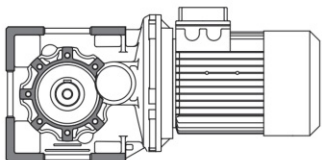
**C** FOOT MOUNTING / HOLLOW SHAFT



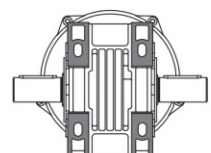
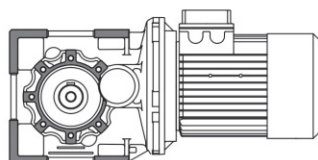
**D** FOOT MOUNTING / D SOLID SHAFT



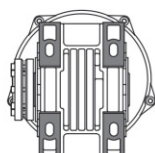
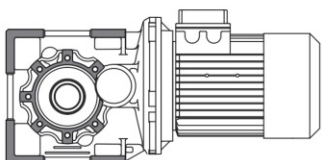
**S** FOOT MOUNTING / S SOLID SHAFT



**P** FOOT MOUNTING / DOUBLE OUTPUT SHAFT



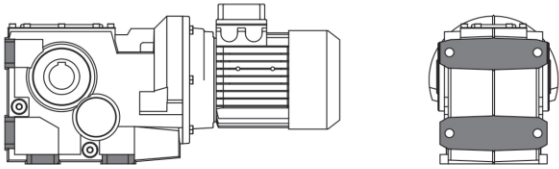
**L** FOOT MOUNTING / SHRINK DISC SHAFT



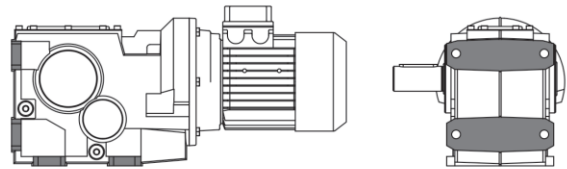
Sizes A42 - A52 - A53 are not available in versions D-S-P.

063 - 083 - 103 - 123

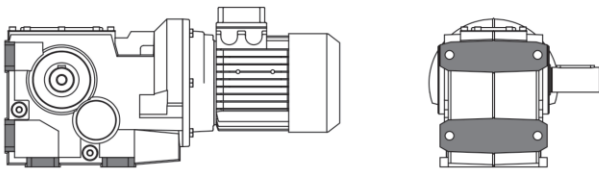
**FC FOOT MOUNTING / HOLLOW SHAFT**



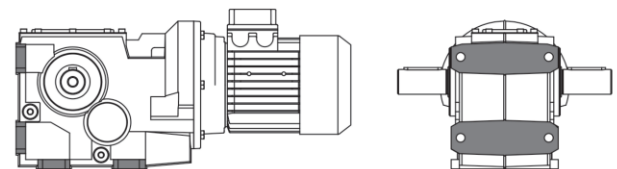
**FD FOOT MOUNTING / D SOLID SHAFT**



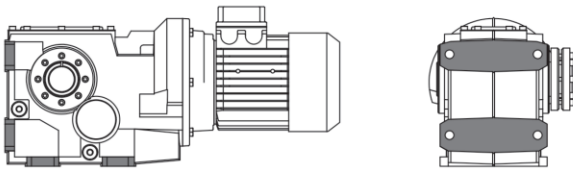
**FS FOOT MOUNTING / S SOLID SHAFT**



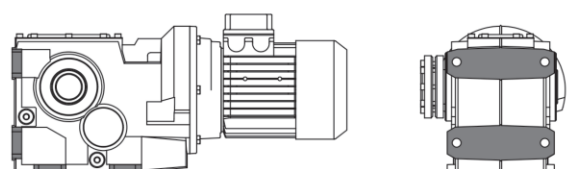
**FP FOOT MOUNTING / DOUBLE OUTPUT SHAFT**



**FL FOOT MOUNTING / SHRINK DISC SHAFT**

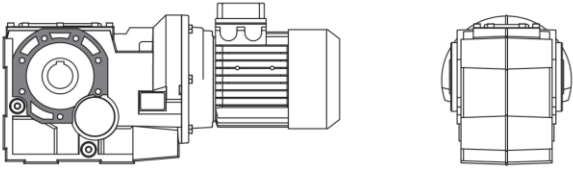


**FM FOOT MOUNTING / SHRINK DISC SHAFT**

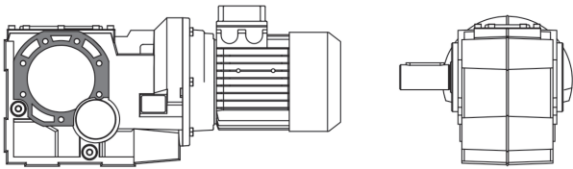


063 - 083 - 103 - 123

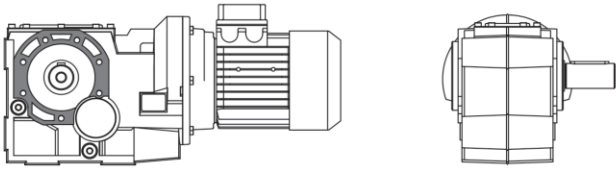
SC FLANGE MOUNTING / HOLLOW SHAFT



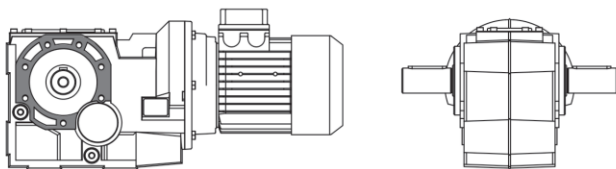
SD FLANGE MOUNTING / D SOLID SHAFT



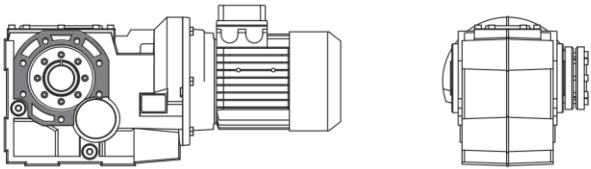
SS FLANGE MOUNTING / S SOLID SHAFT



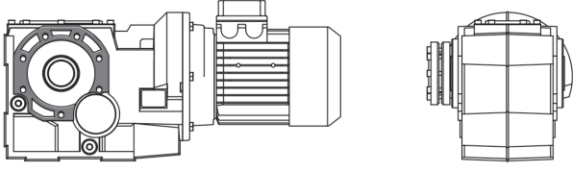
SP FLANGE MOUNTING / DOUBLE OUTPUT SHAFT



SL FLANGE MOUNTING / HOLLOW SHAFT

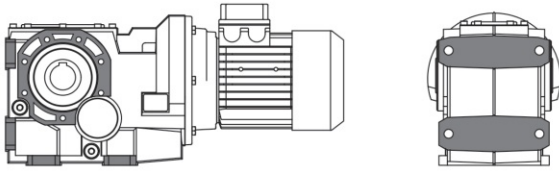


SM FLANGE MOUNTING / D SOLID SHAFT

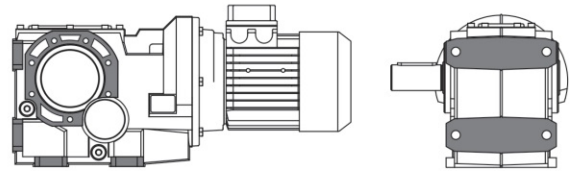


063 - 083 - 103 - 123 - 143 - 153 - 163

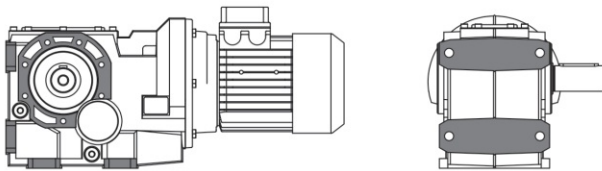
**UC FOOT-FLANGE MOUNTING / HOLLOW SHAFT**



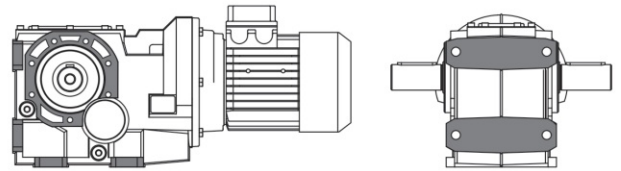
**UD FOOT-FLANGE MOUNTING / D SOLID SHAFT**



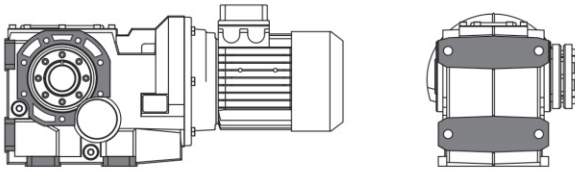
**US FOOT-FLANGE MOUNTING / S SOLID SHAFT**



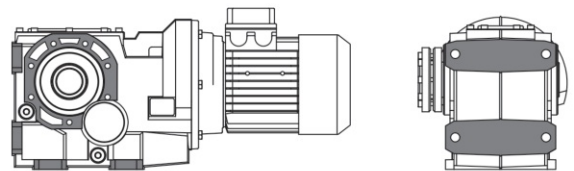
**UP FOOT-FLANGE MOUNTING / DOUBLE OUTPUT SHAF**



**UL FOOT-FLANGE MOUNTING / SHRINK DISC SHAFT**



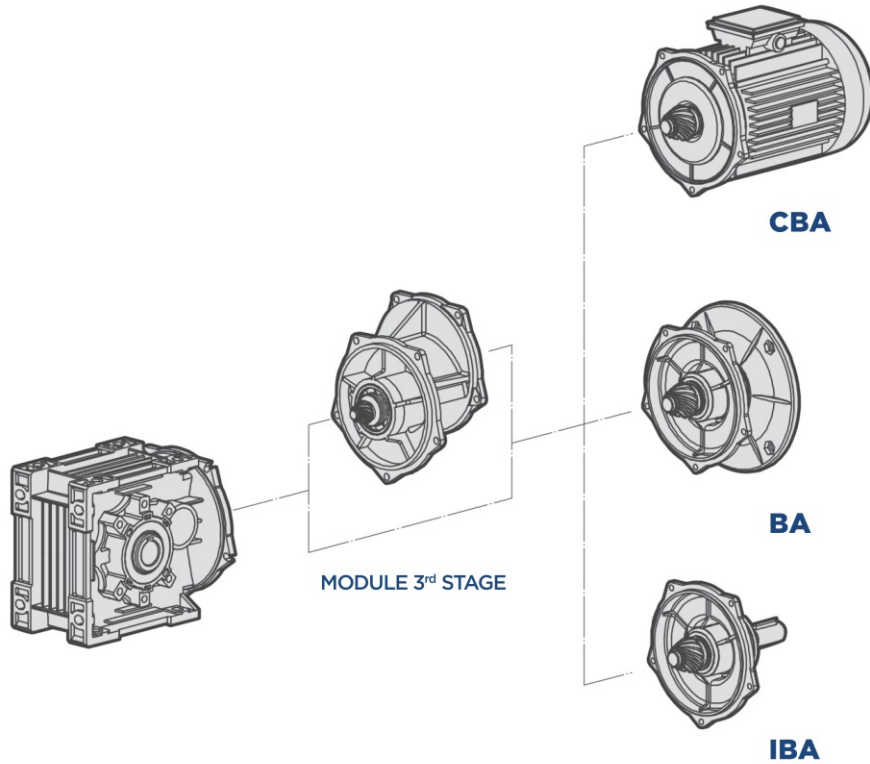
**UM FOOT-FLANGE MOUNTING / SHRINK DISC SHAFT**





### 2.2.3 Modularity

#### BA ALUMINIUM ALLOY SERIES



#### **CBA**

Compact electric motor versions

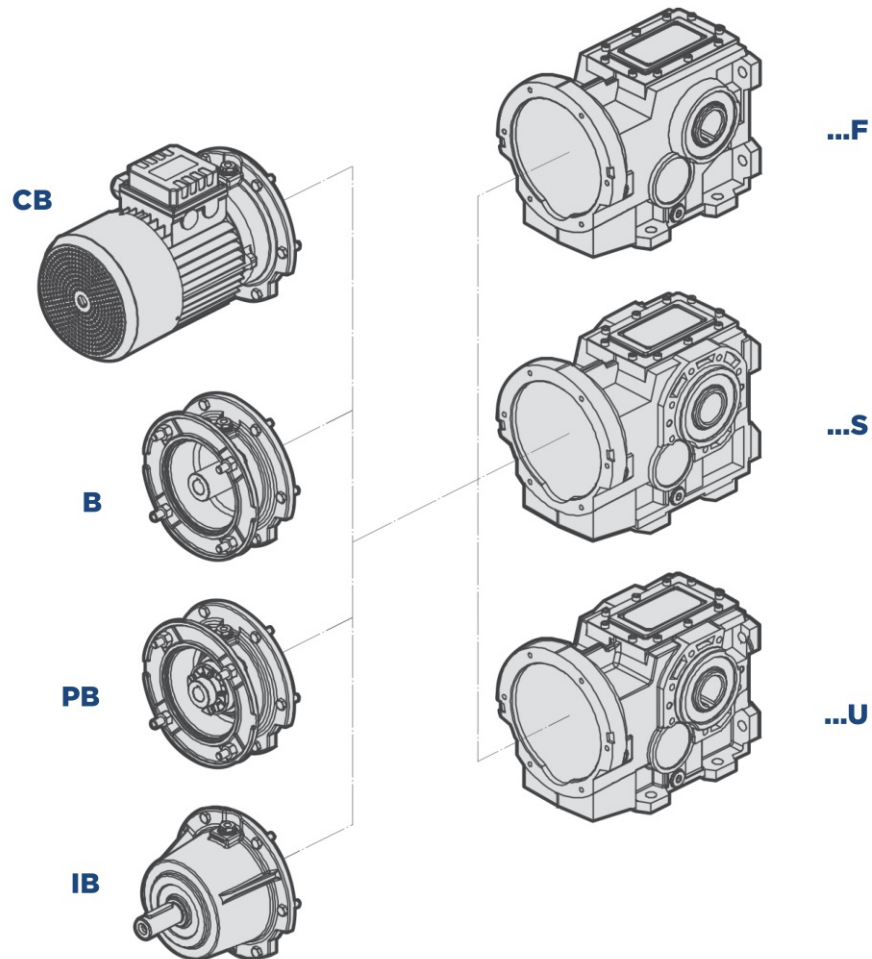
#### **BA**

Fitted for motor coupling version (PAM)

#### **IBA**

Input shaft versions

B GREY CAST IRON SERIES



**CB**  
Compact electric motor versions

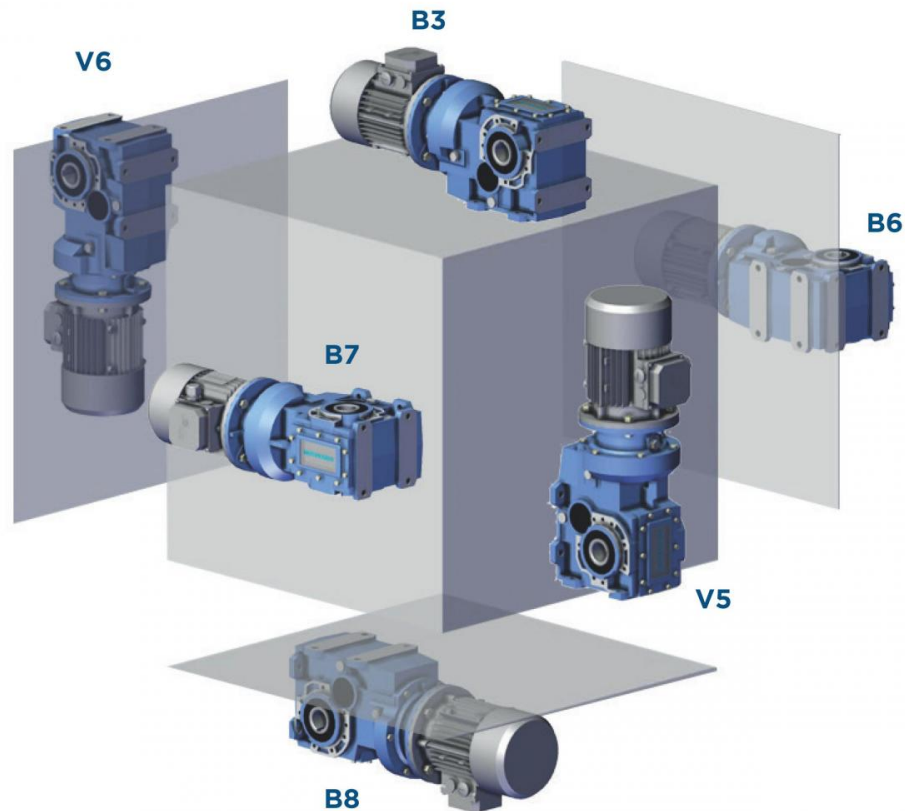
**PB**  
Fitted for motor mounting  
with flexible coupling

**B**  
Fitted for motor coupling version  
(PAM)

**IB**  
Input shaft versions

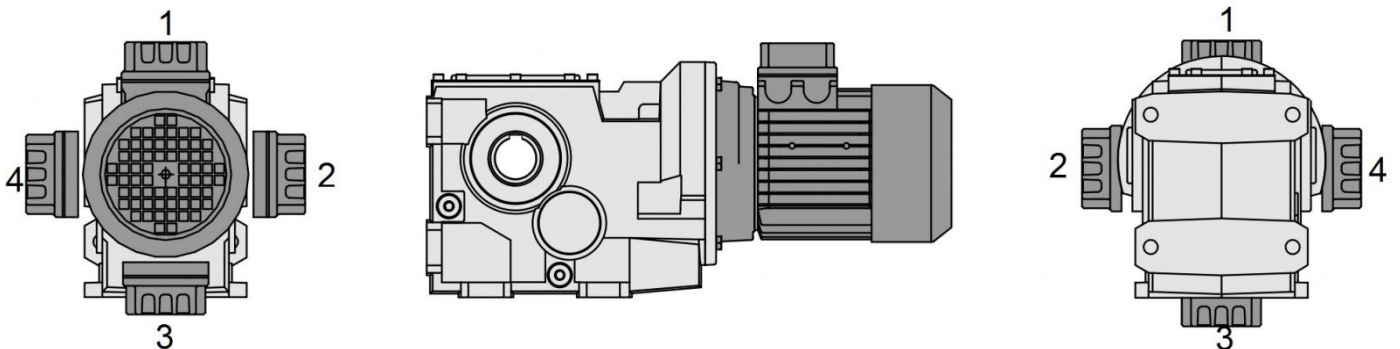
### 2.3.1 Mounting positions

The mounting position of the gear unit identifies its space orientation. B3 mounting position, as from a technical point of view, ensures lower oil splash, better lubrication and less heating.



### 2.3.2 Position of terminal box

Unless otherwise specified when ordering, the gear reducer is supplied with terminal box in position 1.



2.4.1 Information

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  $T_{amb}=25^{\circ}C$
- sea level altitude
- air speed around the gear reducer  $\geq 1$ m/s
- absence of external radial and/or axial loads

| n <sub>1</sub> = 1500rpm |          |
|--------------------------|----------|
|                          | Pth [kW] |
| B063                     | 10,5     |
| B083                     | 11       |
| B103                     | 12,5     |
| B123                     | 19       |
| B143                     | 22,5     |
| B153                     | 38       |
| B163                     | 55       |

A correct lubrication and a proper running condition of the gearbox are guaranteed only applying an input power not exceeding Pth (at the above reference conditions) (T oil max=95°C).

NOTE: For the BA series it is not necessary to check the thermal power.

2.4.2 Verification

Application check

Except for continuous operating times below two hours and successive pauses capable of bringing the gear reducer back to ambient temperature, for each application it is peremptory to verify the gear reducer’s thermal limit according to the following formula:  $P_1 < P_{th} * F_c * F_v * F_a$ , where:

- P<sub>1</sub> = input power to the gear reducer [kW]
- P<sub>th</sub> = thermal power at the reference conditions [kW] (see above table)
- F<sub>c</sub> = ambient and operating temperature correction factor
- F<sub>v</sub> = ventilation correction factor
- F<sub>a</sub> = altitude correction factor

The correction factors refer to different operating conditions compared to the reference conditions, and are provided by the following ISO14179 tables:

| Ambient temperature °C | F <sub>c</sub> | Duty per hour of operation % |      |      |      |    |
|------------------------|----------------|------------------------------|------|------|------|----|
|                        |                | 100                          | 80   | 70   | 40   | 20 |
| 10                     | 1,15           | 1,21                         | 1,32 | 1,55 | 2,07 |    |
| 18                     | 1,07           | 1,12                         | 1,23 | 1,44 | 1,93 |    |
| 25                     | 1,00           | 1,05                         | 1,15 | 1,35 | 1,80 |    |
| 30                     | 0,93           | 0,98                         | 1,07 | 1,26 | 1,67 |    |
| 40                     | 0,83           | 0,87                         | 0,95 | 1,12 | 1,49 |    |
| 43                     | 0,75           | 0,79                         | 0,86 | 1,01 | 1,35 |    |
| 50                     | 0,67           | 0,70                         | 0,77 | 0,90 | 1,21 |    |

| Altitude (m) | F <sub>a</sub> |
|--------------|----------------|
| 0*           | 1              |
| 750          | 0,95           |
| 1500         | 0,9            |
| 2250         | 0,85           |
| 3000         | 0,81           |

| Ventilation correction factor                        | F <sub>v</sub> |
|--|----------------|
| 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            |
| Installazione all'aperto (>3,7 m/s)                  | 1.9            |

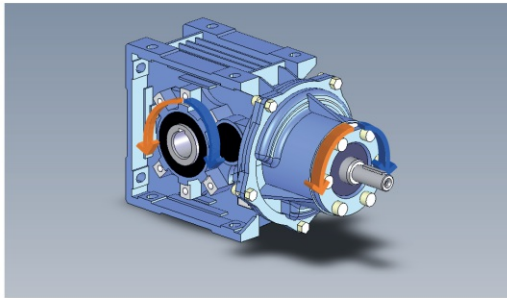
\*Sea level

In case of operation at input speeds exceeding 2000 rpm, or ambient temperatures greater than 40°C, it is advisable to contact out technical department.

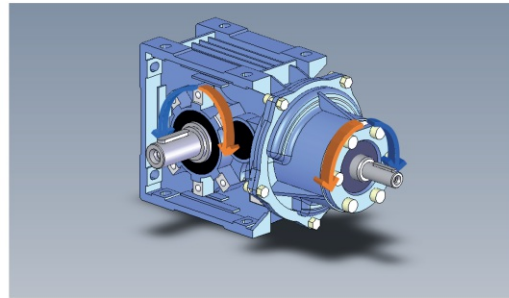
Helical bevel reduction units are supplied as “standard” with rotation as shown in the diagram. On request, the direction of rotation of low speed shaft can be reversed; in this case, it is necessary to specify “opposite rotation to catalogue” when ordering. The “opposite rotation to catalogue” is not possible for sizes BA42 - BA52 - BA53.

### DIRECTION OF ROTATION - HIGH SPEED SHAFT

#### B-CB-IB A42-A52-A72

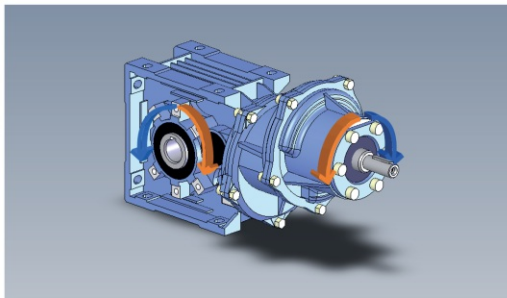


VERSIONS C-D-P-L

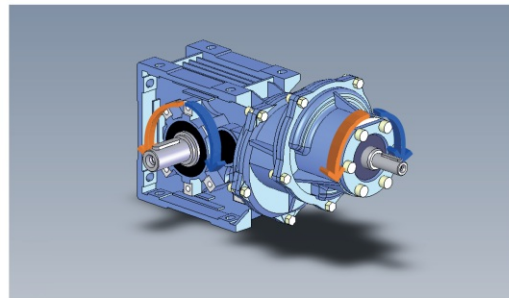


VERSION S

#### B-CB-IB A53-A73

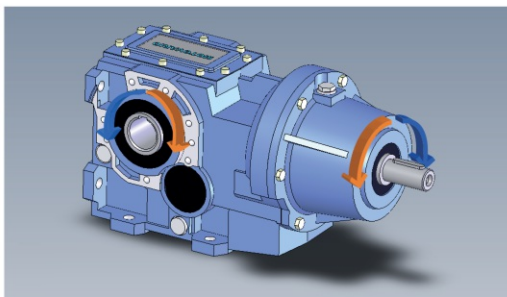


VERSIONS C-D-P-L

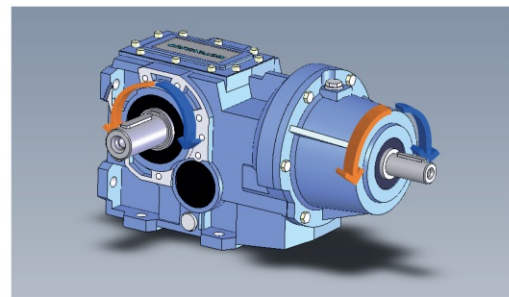


VERSION S

#### B-PB-CB-IB 063-163



VERSIONS C-D-P-L



VERSION S-M

## 2.6.1 Critical applications

| B                | A40 | A50 | A70 |
|------------------|-----|-----|-----|
| 2000 < n1 < 3000 | ✓   | ✓   | ✓   |
| V6               | B   | B   | B   |
| n1 > 3000        | B   | B   | B   |
| ...L : B6 - B7   | B   | B   | B   |

| B                | 060 | 080 | 100 | 125 | 140 | 150 | 160 |
|------------------|-----|-----|-----|-----|-----|-----|-----|
| 2000 < n1 < 3000 | ✓   | ✓   | ✓   | B   | B   | B   | B   |
| V6               | B   | B   | B   | B   | B   | B   | B   |
| n1 > 3000        | B   | B   | B   | B   | A   | A   | A   |
| ...L : B6 - B7   | B   | B   | B   | B   | B   | B   | B   |

✓ Verified application

A Application not recommended

B Check the application and/or call MOTOVARIO TECHNICAL SERVICE.

The shrink disc is designed only to transmit the output torque.

In case of mounting position with radial and/or axial loads, please contact MOTOVARIO TECHNICAL SERVICE.

## 2.6.2 Information

The performance given in the catalogue correspond to mounting position B3 or similar, when the first stage is not entirely immersed in oil. For other mounting positions and/or particular input speeds, refer to the tables that highlight different critical situations for each size of gear reducer. It is also necessary to take due consideration of and carefully assess the following applications by calling MOTOVARIO TECHNICAL SERVICE:

- To avoid the use as multiplier.
- Use in services that could be hazardous for people if the gear reducer fails.
- Applications with especially high inertia.
- Use as a lifting winch.
- Applications with high dynamic strain on the case of the gear reducer.
- In places with  $T_{amb}$  under  $-5^{\circ}\text{C}$  or over  $40^{\circ}\text{C}$ .
- Use in chemically aggressive environments.
- Use in a salty environment.
- Mounting positions not envisaged in the catalogue.
- Use in radioactive environments.
- Use in environments pressures other than atmospheric pressure.

Avoid applications where even partial immersion of the reducer is required.

In the presence of overloading due to full load, braking, shocks or other static and dynamic causes, please verify that the peak torque is less than  $2 \cdot Mn_2$ .

### 2.7.1 BA Motor flange availability

**B10** = Compact electric motor versions.

These tables report all possible dimensions. Please verify service factor.

|               | i               | 063 | 071 | 080 | 090 | 100 | 112 |
|---------------|-----------------|-----|-----|-----|-----|-----|-----|
| <b>CB A42</b> | 7,62 ÷ 64,13    | B10 | B10 | B10 |     |     |     |
| <b>CB A42</b> | 78,17           | B10 | B10 |     |     |     |     |
| <b>CB A52</b> | 7,91 ÷ 31,63    | B10 | B10 | B10 | B10 |     |     |
| <b>CB A52</b> | 35,1 ÷ 64,87    | B10 | B10 | B10 |     |     |     |
| <b>CB A52</b> | 79,07           | B10 | B10 |     |     |     |     |
| <b>CB A53</b> | 73,7 ÷ 172,53   | B10 | B10 | B10 | B10 |     |     |
| <b>CB A53</b> | 197,11 ÷ 342,65 | B10 | B10 |     |     |     |     |
| <b>CB A72</b> | 8,36 ÷ 22,19    |     |     |     | B10 | B10 | B10 |
| <b>CB A72</b> | 27,45 ÷ 40,87   |     |     | B10 | B10 | B10 | B10 |
| <b>CB A72</b> | 45,64 ÷ 67,96   |     |     | B10 | B10 |     |     |
| <b>CB A73</b> | 43,89 ÷ 222,93  | B10 | B10 | B10 | B10 |     |     |
| <b>CB A73</b> | 260,2 ÷ 442,76  | B10 | B10 |     |     |     |     |

|             | i               | 063 | 071    | 080      | 090    | 100    | 112    |
|-------------|-----------------|-----|--------|----------|--------|--------|--------|
| <b>BA42</b> | 7,62 ÷ 64,13    | B5  | B5-B14 | B5 - B14 |        |        |        |
| <b>BA42</b> | 78,17           | B5  | B5-B14 |          |        |        |        |
| <b>BA52</b> | 7,91 ÷ 31,63    | B5  | B5-B14 | B5-B14   | B5-B14 |        |        |
| <b>BA52</b> | 35,1 ÷ 64,87    | B5  | B5-B14 | B5-B14   |        |        |        |
| <b>BA52</b> | 79,07           | B5  | B5-B14 |          |        |        |        |
| <b>BA53</b> | 73,7 ÷ 172,53   | B5  | B5-B14 | B5-B14   | B5-B14 |        |        |
| <b>BA53</b> | 197,11 ÷ 342,65 | B5  | B5-B14 |          |        |        |        |
| <b>BA72</b> | 8,36 ÷ 22,19    |     |        |          | B5-B14 | B5-B14 | B5-B14 |
| <b>BA72</b> | 27,45 ÷ 40,87   |     |        | B5-B14   | B5-B14 | B5-B14 | B5-B14 |
| <b>BA72</b> | 45,64 ÷ 67,96   |     |        | B5-B14   | B5-B14 |        |        |
| <b>BA73</b> | 43,89 ÷ 222,93  | B5  | B5-B14 | B5-B14   | B5-B14 |        |        |
| <b>BA73</b> | 260,2 ÷ 442,76  | B5  | B5-B14 |          |        |        |        |

## 2.7.2 B Motor flange availability

**B11** = Compact electric motor versions.

These tables report all possible dimensions. Please verify service factor.

\*For motor size 063 the PB version does not exist.

| CB - B - PB 063 |        |        |        |        |         |
|-----------------|--------|--------|--------|--------|---------|
| i               | *063   | 071    | 080    | 090    | 100-112 |
| 5,71            |        |        | B5-B11 | B5-B11 | B5-B11  |
| 6,88            |        |        | B5-B11 | B5-B11 | B5-B11  |
| 7,32            |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 9,16            |        |        | B5-B11 | B5-B11 | B5-B11  |
| 10,26           |        |        | B5-B11 | B5-B11 | B5-B11  |
| 11,03           |        |        | B5-B11 | B5-B11 | B5-B11  |
| 12,35           |        |        | B5-B11 | B5-B11 | B5-B11  |
| 13,15           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 15,18           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 17,00           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 22,39           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 26,09           |        |        | B5-B11 | B5-B11 | B5-B11  |
| 28,03           |        |        | B5-B11 | B5-B11 | B5-B11  |
| 33,43           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 38,58           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 43,22           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 50,81           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 56,93           |        | B5-B11 | B5-B11 | B5-B11 | B5-B11  |
| 69,16           | B5-B11 | B5-B11 | B5-B11 | B5-B11 |         |
| 77,48           | B5-B11 | B5-B11 | B5-B11 | B5-B11 |         |
| 90,33           | B5-B11 | B5-B11 | B5-B11 |        |         |
| 101,20          | B5-B11 | B5-B11 | B5-B11 |        |         |
| 111,74          | B5-B11 | B5-B11 | B5-B11 |        |         |
| 124,20          | B5-B11 | B5-B11 | B5-B11 |        |         |
| 139,15          | B5-B11 | B5-B11 | B5-B11 |        |         |
| 157,42          | B5-B11 | B5-B11 | B5-B11 |        |         |

| CB - B - PB 083 |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|
| i               | 080    | 090    | 100    | 112    | 132    |
| 7,81            | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 8,62            | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 10,49           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 11,59           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 14,43           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 16,60           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 18,32           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 22,82           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 26,71           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 29,50           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 31,80           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 34,49           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 39,60           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 42,95           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 45,44           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 51,19           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 55,52           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 59,96           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 63,74           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 69,14           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 73,14           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 80,76           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 92,19           | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |
| 100,57          | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |
| 105,29          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |
| 116,25          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |
| 126,76          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |
| 144,77          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |



## 2.7 MOTOR FLANGE AVAILABILITY

| CB - B - PB 103 |        |        |        |        |        |     |
|-----------------|--------|--------|--------|--------|--------|-----|
| i               | 080    | 090    | 100    | 112    | 132    | 160 |
| 8,13            | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 8,97            | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 10,92           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 12,05           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 14,99           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 17,27           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 19,06           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 23,70           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 26,51           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 30,55           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5  |
| 33,07           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 35,87           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 41,12           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 44,61           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 47,28           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 50,24           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 53,02           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 58,50           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 64,89           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 68,58           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 72,76           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 78,92           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 83,66           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 92,31           | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 105,44          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |     |
| 114,80          | B5-B11 | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |
| 120,42          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |     |
| 132,87          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |     |
| 144,69          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |     |
| 165,25          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |        |     |

| CB - B - PB 123 |        |        |        |        |     |     |
|-----------------|--------|--------|--------|--------|-----|-----|
| i               | 090    | 100    | 112    | 132    | 160 | 180 |
| 7,97            |        |        |        | B5-B11 | B5  | B5  |
| 9,62            |        |        |        | B5-B11 | B5  | B5  |
| 10,33           |        |        |        | B5-B11 | B5  | B5  |
| 12,48           |        |        |        | B5-B11 | B5  | B5  |
| 13,84           |        |        |        | B5-B11 | B5  | B5  |
| 15,38           |        |        |        | B5-B11 | B5  | B5  |
| 18,58           |        |        |        | B5-B11 | B5  | B5  |
| 20,61           |        |        |        | B5-B11 | B5  | B5  |
| 22,78           |        |        |        | B5-B11 | B5  | B5  |
| 25,89           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 27,51           |        |        |        | B5-B11 | B5  | B5  |
| 30,79           |        |        |        | B5-B11 | B5  | B5  |
| 31,26           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 34,68           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 40,53           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 44,89           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 49,80           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 54,30           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 59,36           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 62,59           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 69,43           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 74,42           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 80,04           | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |
| 89,87           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 99,70           |        | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |
| 106,65          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |
| 119,60          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |
| 129,96          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |
| 144,43          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |
| 160,23          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |
| 180,40          | B5-B11 | B5-B11 | B5-B11 | B5-B11 |     |     |

## 2.7 MOTOR FLANGE AVAILABILITY

| CB - B - PB 143 |        |        |        |     |     |     |
|-----------------|--------|--------|--------|-----|-----|-----|
| i               | 100    | 112    | 132    | 160 | 180 | 200 |
| 10,84           |        |        | B5-B11 | B5  | B5  | B5  |
| 11,87           |        |        | B5-B11 | B5  | B5  | B5  |
| 14,49           |        |        | B5-B11 | B5  | B5  | B5  |
| 17,04           |        |        | B5-B11 | B5  | B5  | B5  |
| 18,66           |        |        | B5-B11 | B5  | B5  | B5  |
| 21,00           |        |        | B5-B11 | B5  | B5  | B5  |
| 22,77           |        |        | B5-B11 | B5  | B5  | B5  |
| 25,63           |        |        | B5-B11 | B5  | B5  | B5  |
| 27,44           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 30,05           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 33,01           |        |        | B5-B11 | B5  | B5  | B5  |
| 36,67           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 40,29           |        |        | B5-B11 | B5  | B5  | B5  |
| 44,16           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 48,35           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 53,16           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 54,63           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 59,02           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 64,88           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 70,43           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 77,12           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 85,54           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  | B5  |
| 94,13           | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 105,83          | B5-B11 | B5-B11 | B5-B11 |     |     |     |
| 111,94          | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 124,62          | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 136,44          | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 149,59          | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 166,53          | B5-B11 | B5-B11 | B5-B11 | B5  | B5  |     |
| 187,24          | B5-B11 | B5-B11 | B5-B11 |     |     |     |

| CB - B - PB 153 |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|
| i               | 132 | 160 | 180 | 200 | 225 |
| 10,49           |     | B5  | B5  | B5  | B5  |
| 12,64           |     | B5  | B5  | B5  | B5  |
| 14,01           |     | B5  | B5  | B5  | B5  |
| 15,40           |     | B5  | B5  | B5  | B5  |
| 18,56           |     | B5  | B5  | B5  | B5  |
| 20,56           |     | B5  | B5  | B5  | B5  |
| 23,86           |     | B5  | B5  | B5  | B5  |
| 25,19           | B5  | B5  | B5  | B5  | B5  |
| 28,23           | B5  | B5  | B5  | B5  | B5  |
| 30,35           | B5  | B5  | B5  | B5  | B5  |
| 33,63           | B5  | B5  | B5  | B5  | B5  |
| 35,02           |     | B5  | B5  | B5  | B5  |
| 38,81           |     | B5  | B5  | B5  | B5  |
| 42,30           | B5  | B5  | B5  | B5  | B5  |
| 47,53           | B5  | B5  | B5  | B5  | B5  |
| 50,56           | B5  | B5  | B5  | B5  | B5  |
| 54,64           | B5  | B5  | B5  | B5  | B5  |
| 57,27           | B5  | B5  | B5  | B5  | B5  |
| 60,92           | B5  | B5  | B5  | B5  | B5  |
| 63,47           | B5  | B5  | B5  | B5  | B5  |
| 71,10           | B5  | B5  | B5  |     |     |
| 77,22           | B5  | B5  | B5  | B5  | B5  |
| 83,90           | B5  | B5  | B5  |     |     |
| 87,70           | B5  | B5  | B5  |     |     |
| 93,05           | B5  | B5  | B5  | B5  | B5  |
| 103,12          | B5  | B5  | B5  | B5  | B5  |
| 123,90          | B5  | B5  | B5  |     |     |
| 134,30          | B5  | B5  | B5  |     |     |
| 149,30          | B5  | B5  | B5  |     |     |
| 165,40          | B5  | B5  | B5  |     |     |

| CB - B - PB 163 |     |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|-----|
| i               | 160 | 180 | 200 | 225 | 250 | 280 |
| 8,89            |     | B5  | B5  | B5  | B5  | B5  |
| 10,58           |     | B5  | B5  | B5  | B5  | B5  |
| 11,87           |     | B5  | B5  | B5  | B5  | B5  |
| 12,81           |     | B5  | B5  | B5  | B5  | B5  |
| 14,08           |     | B5  | B5  | B5  | B5  | B5  |
| 15,52           |     | B5  | B5  | B5  | B5  | B5  |
| 16,39           |     | B5  | B5  | B5  | B5  | B5  |
| 18,02           | B5  | B5  | B5  | B5  | B5  | B5  |
| 19,96           | B5  | B5  | B5  | B5  | B5  |     |
| 21,94           | B5  | B5  | B5  | B5  | B5  | B5  |
| 24,17           | B5  | B5  | B5  | B5  | B5  | B5  |
| 26,58           | B5  | B5  | B5  | B5  | B5  | B5  |
| 28,80           | B5  | B5  | B5  | B5  | B5  |     |
| 30,92           | B5  | B5  | B5  | B5  | B5  | B5  |
| 34,25           | B5  | B5  | B5  | B5  | B5  |     |
| 37,66           | B5  | B5  | B5  | B5  | B5  |     |
| 40,65           | B5  | B5  | B5  | B5  | B5  |     |
| 45,09           | B5  | B5  | B5  | B5  | B5  |     |
| 51,00           | B5  | B5  | B5  | B5  | B5  |     |
| 53,63           | B5  | B5  | B5  | B5  | B5  |     |
| 58,97           | B5  | B5  | B5  | B5  | B5  |     |
| 69,78           | B5  | B5  | B5  | B5  |     |     |
| 76,72           | B5  | B5  | B5  |     |     |     |
| 87,54           | B5  | B5  | B5  |     |     |     |
| 96,25           | B5  | B5  | B5  |     |     |     |
| 103,93          | B5  | B5  | B5  |     |     |     |
| 114,27          | B5  | B5  |     |     |     |     |
| 126,29          | B5  | B5  |     |     |     |     |
| 138,85          | B5  | B5  |     |     |     |     |
| 154,83          | B5  | B5  |     |     |     |     |

## 2.8 OUTPUT SHAFT BEARINGS

| BA           |       | BA40     |            | BA50     |            | BA70     |            |
|--------------|-------|----------|------------|----------|------------|----------|------------|
| Versions (*) |       | Standard | On request | Standard | On request | Standard | On request |
| U            | C     | 1        | /          | 1        | /          | 1        | /          |
|              | D/S/P | /        | /          | /        | /          | 1        | /          |
|              | L/M   | 1        | /          | 1        | /          | 1        | /          |

(\*) N.B. sizes A42 - A52 - A53 are not available in versions D-S-P.

| B        |       | B060     |            | B080     |            | B100/125 |            | B140/150/160 |            |
|----------|-------|----------|------------|----------|------------|----------|------------|--------------|------------|
| Versions |       | Standard | On request | Standard | On request | Standard | On request | Standard     | On request |
| U        | C     | 2        | /          | 2 (Ø40)  | 1 (Ø45)    | 2        | /          | 2            | /          |
|          | D/S/P | 2        | /          | 2        | /          | 2        | /          | 2            | /          |
|          | L/M   | 1        | /          | 1        | /          | 1        | /          | 2            | /          |
| F/S      | C     | 1        | 2          | 1        | 2          | 1        | 2          | /            | /          |
|          | D/S/P | 2        | /          | 2        | /          | 2        | /          | /            | /          |
|          | L/M   | 1        | /          | 1        | /          | 1        | /          | /            | /          |

1 - Ball Bearing

2 - Roller bearings

/ - Not available

2.9.1 Information

The value of the admissible radial load [N] is given in the tables relating to the performance of the gear reducer at issue. It is related to the load applied on the centre line of the shaft and in the most unfavourable conditions of angle of application and direction of rotation. The maximum admissible axial loads are 1/5 of the value of the given radial load when they are applied in combination with the radial load. The tables relating to the output shafts give the maximum admissible value. This value must never be exceeded since it relates to the strength of the case. Particular conditions of radial load higher than the limits of the catalogue may occur. In this case, call our Technical Service and provide details on the application: direction of the load, direction of rotation of the shaft, type of service. In case of double extension shafts with radial load applied on both ends, the max. admissible radial loads must be defined according to the specific running conditions, in this case call our Technical Service. The radial load on the shaft is calculated with the following formula:

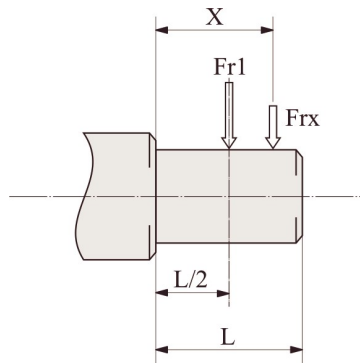
$$Fr_e = (2000 \cdot M \cdot fz) / D \leq Fr_1 \text{ or } Fr_2$$

- **Fr<sub>e</sub>** [N] Resulting radial load
- **M** [Nm] Torque on the shaft
- **D** [mm] Diameter of the transmission member mounted on the shaft
- **Fr<sub>1</sub>-Fr<sub>2</sub>** [N] Value of the maximum admitted radial load (see relative tables)
- **fz** = 1,1 gear pinion - 1,4 chain wheel - 1,7 v-pulley - 2,5 flat pulley

2.9.2 Input

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load Fr<sub>1</sub> with the following 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



| IB                       | A42 A52 A53 A73 | A72 |
|--------------------------|-----------------|-----|
| a                        | 84              | 89  |
| b                        | 64              | 69  |
| Fr <sub>1</sub> max (**) | 500             | 830 |

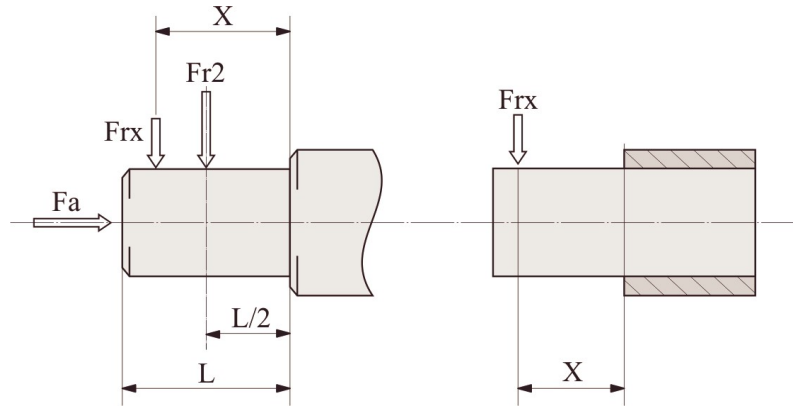
| IB                       | 063  | 083  | 103  | 123  | 143  | 153   | 163   |
|--------------------------|------|------|------|------|------|-------|-------|
| a                        | 105  | 137  | 137  | 175  | 175  | 225   | 221   |
| b                        | 80   | 108  | 108  | 135  | 135  | 170   | 166   |
| Fr <sub>1</sub> max (**) | 2200 | 2500 | 3200 | 4200 | 7000 | 10000 | 12000 |

(\*\*Fr<sub>1</sub> max) Max admissible value of the reducer in static conditions and/or for limited operations. For continuous overhung loads please check the values on the performances tables calculated according to the casing, the shaft and bearings.

2.9.3 Output

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 following 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



| B                  | A42  | A52 A53 | A72 A73 |
|--------------------|------|---------|---------|
| a                  | 105  | 119     | 145     |
| b                  | 85   | 94      | 116     |
| D-S-P (Fr2 max **) | -    | -       | 10000   |
| C (Fr2 max **)     | 4000 | 4000    | 5500    |

| B                  | 063   | 083   | 103   | 123   | 143   | 153   | 163   |
|--------------------|-------|-------|-------|-------|-------|-------|-------|
| a                  | 129   | 190   | 225   | 262   | 306   | 348   | 468   |
| b                  | 100   | 150   | 175   | 202   | 236   | 278   | 363   |
| D-S-P (Fr2 max **) | 12000 | 18000 | 22000 | 30000 | 40000 | 65000 | 80000 |
| C (Fr2 max **)     | 8000  | 12000 | 15000 | 20000 | 40000 | 65000 | 65000 |

(\*\*Fr2 max) Max admissible value of the reducer in static conditions and/or for limited operations. For continuous overhung loads please check the values on the performances tables calculated according to the casing, the shaft and bearings.

### 2.10.1 Information

In cases of ambient temperatures not envisaged in the table, call our Technical Service. In the case of temperatures under  $-30^{\circ}\text{C}$  or over  $60^{\circ}\text{C}$  it is necessary to use oil seals with special properties. For operating ranges with temperatures under  $0^{\circ}\text{C}$  it is necessary to consider the following:

1. The motors need to be suitable for operation at the envisaged ambient temperature.
2. The power of the electric motor needs to be adequate for exceeding the higher starting torques required.
3. In case of cast-iron gear reducers, pay attention to impact loads since cast iron may have problems of fragility at temperatures under  $-15^{\circ}\text{C}$ .
4. During the early stages of service, problems of lubrication may arise due to the high level of viscosity taken on by the oil and so it is wise to have a few minutes of rotation under no load.

Oil (NON Atex products) must be changed after approx. 10000 hours/2 years of operation; this time varies based on the type of service and on the environment inside which the gear reducer is installed. Units not featuring any oil plug are life-lubricated, and therefore maintenance-free.

### 2.10.2 Lubricants

Specifications of lubricants recommended by Motovario.

The units **B063 ÷ 123** are supplied with ENI BLASIA 220 oil, unless otherwise specified by the client.

The units **B143 ÷ 163** are supplied without lubricant.

|                                       | <b>B063 ÷ 163</b>                 |                                    | <b>BA42 ÷ A72/3</b>                 |
|---------------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
|                                       | <b>Mineral oil</b>                |                                    | <b>Mineral oil</b>                  |
| <b>T<sub>amb</sub> °C<br/>ISO/SAE</b> | <b>(-5) ÷ (+40)<br/>ISO VG220</b> | <b>(-15) ÷ (+25)<br/>ISO VG150</b> | <b>(-5) ÷ (+40)<br/>SAE 85W-140</b> |
| <b>ENI</b>                            | BLASIA 220                        | BLASIA 150                         | ROTRA MP (85W-140)                  |
| <b>SHELL</b>                          | OMALA S2 G 220                    | OMALA S2 G 150                     | SPIRAX S2 A 85W-140                 |
| <b>KLUBER</b>                         | Kluberoil GEM 1-220N              | Kluberoil GEM 1-150N               | Klubersynth GH 6-460                |
| <b>MOBIL</b>                          | MOBILGEAR 600 XP220               | MOBILGEAR 600 XP150                | -                                   |
| <b>CASTROL</b>                        | ALPHA SP 220                      | ALPHA SP 150                       | -                                   |
| <b>BP</b>                             | ENERGOL GR-XP220                  | ENERGOL GR-XP150                   | -                                   |

## 2.10.3 Special lubricants

|        | $T_{amb}^{\circ C}$ | Polyglycol synthetic oil                |
|--------|---------------------|---|
| ENI    | (-30) ÷ (+30)       | Blasia S 150 (ISO VG150)                |
|        | (-20) ÷ (+40)       | Blasia S 220 (ISO VG220)                |
| MOBIL  | (-45) ÷ (+0)        | SCH 624 (ISO VG32)                      |
|        | (-40) ÷ (+5)        | SCH 626 (ISO VG68)                      |
| KLUBER | (-40) ÷ (+5)        | Klubersynth GH 6-32 (ISO VG32)          |
|        | (-35) ÷ 10)         | Klubersynth GH 6-80 (ISO VG80)          |
|        | (-30) ÷ (+40)       | Klubersynth GH 6-150 (ISO VG150)        |
|        | (-25) ÷ (+40)       | Klubersynth GH 6-220 (ISO VG220)        |
|        | (-15) ÷ (+50)       | Klubersynth GH 6-460 (ISO VG460)        |
|        | (-10) ÷ (+70)       | Klubersynth GH 6-680 (ISO VG680)        |
|        | $T_{amb}^{\circ C}$ | Polyglycol synthetic oil for food grade |
| KLUBER | (-30) ÷ (+15)       | Klubersynth UH1-6 100 (ISO VG100)       |
|        | (-25) ÷ (+40)       | Klubersynth UH1-6 220 (ISO VG220)       |
|        | (-15) ÷ (+40)       | Klubersynth UH1-6 320 (ISO VG320)       |
|        | (-15) ÷ (+50)       | Klubersynth UH1-6 460 (ISO VG460)       |
|        | (-10) ÷ (+50)       | Klubersynth UH1-6 680 (ISO VG680)       |

If 'special' lubricant is required please contact for Technical Assistance.

## 2.10.4 Quantity

- For the reduction units B series it is always necessary to specify the mounting position.
- The reduction units BA.. series with 2, 3 stages and B060, are supplied complete with lubricant, have no oil plugs and need no maintenance.
- The gear reducer B series sizes 080, 100 are supplied complete with lubricant and are fitted with oil plugs to suit any mounting position included in the catalogue.
- The gear reducer B series sizes 140, 150, 160 have no lubricant and are fitted with oil plugs to suit any mounting position included in the catalogue. The oil filling can be done on request, in this case it is recommended, after installation, to replace the closed plug used for transportation with the supplied breather plug. When the reduction unit is supplied without lubricant, it is provided with a label to be filled.

It is recommended, after installation, to replace the closed plug used for transportation with the supplied breather plug. Oil quantity in the table (litres -) are indicative; for a proper use you will have to refer to the level plug or the dipstick. Any level difference could depend on construction tolerances, but also by the placement of the unit or by the mounting surface at the customer's premises. It is appropriate to check and, if necessary, restores the level when the units are installed.

| B     | A42  | A52  | A53  | A72 | A73  |
|-------|------|------|------|-----|------|
| B3    |      |      |      |     |      |
| B8    |      |      |      |     |      |
| B6/B7 | 0,33 | 0,42 | 0,63 | 1   | 1,21 |
| V5    |      |      |      |     |      |
| V6    |      |      |      |     |      |

| CB    | A42  | A52  | A53  | A72 | A73  |
|-------|------|------|------|-----|------|
| B3    |      |      |      |     |      |
| B8    |      |      |      |     |      |
| B6/B7 | 0,33 | 0,42 | 0,55 | 1   | 1,13 |
| V5    |      |      |      |     |      |
| V6    |      |      |      |     |      |

| B-CB | 063 | 083 | 103 | 123 | 143  | 153  | 163  |
|------|-----|-----|-----|-----|------|------|------|
| B3   | 1,2 | 2,5 | 3,7 | 5,7 | 11,1 | 19   | 33   |
| B8   | 1,5 | 2,8 | 4,2 | 7,9 | 13   | 17,5 | 42,8 |
| B6   | 1,5 | 3,5 | 6   | 8,5 | 14,5 | 26   | 43   |
| B7   | 1,5 | 2,8 | 3,9 | 7,3 | 11,8 | 19   | 30   |
| V5   | 2,1 | 3,7 | 7   | 9,9 | 18,5 | 32,5 | 54,5 |
| V6   | 1,3 | 2,6 | 4,5 | 6,7 | 10,8 | 16,5 | 37,3 |



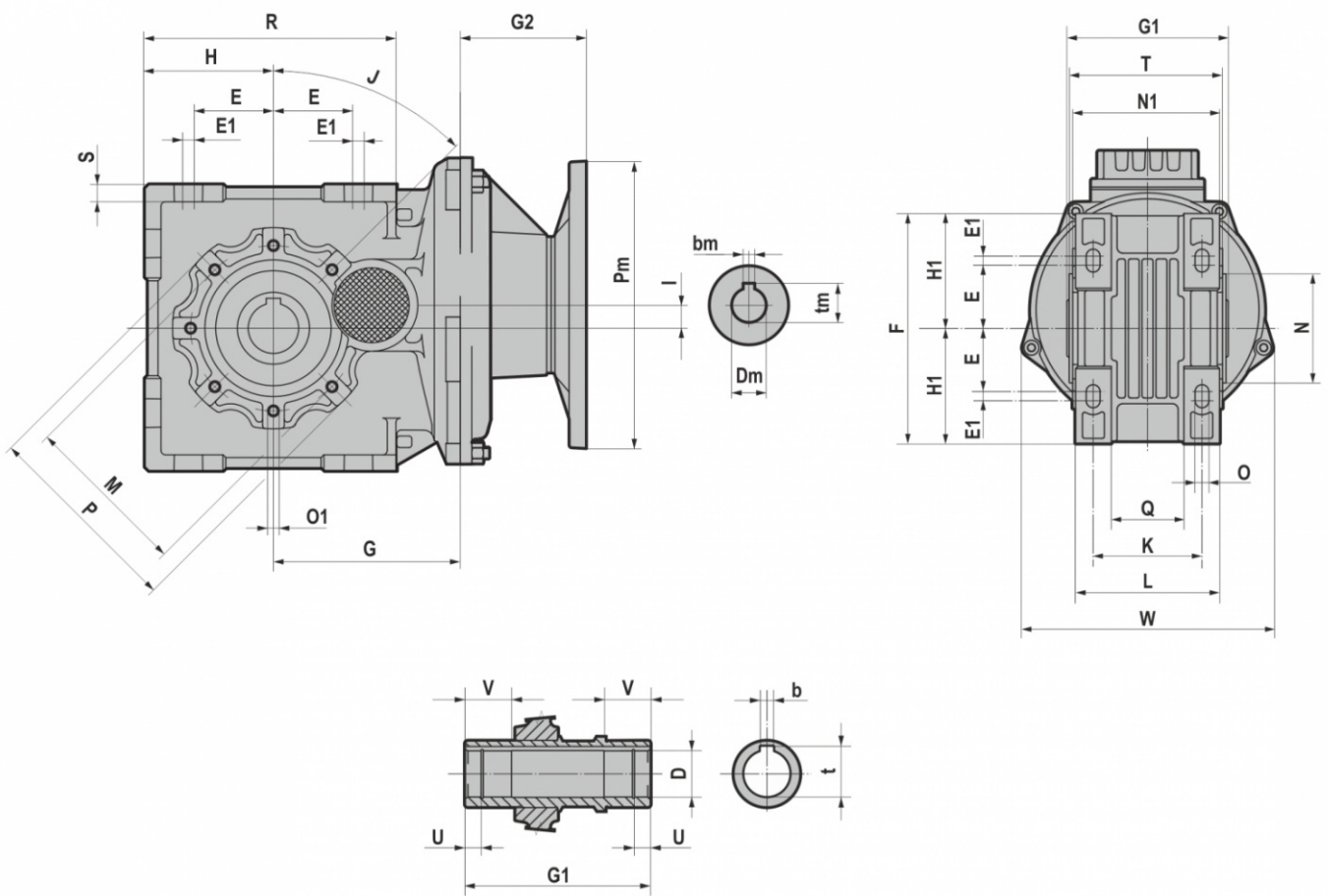
## 2.11 MOMENTS OF INERTIA

The following values of  $J_1$  moment of inertia are only estimated, referred to the maximum calculated, and to the gearbox input side.

| BA-2/3  | $J_1$ [Kg*m <sup>2</sup> ] |
|---------|----------------------------|
| A42     | 0,0001                     |
| A52/A53 | 0,0001                     |
| A72/A73 | 0,0003                     |

| B   | $J_1$ [Kg*m <sup>2</sup> ] |
|-----|----------------------------|
| 063 | 0,0001                     |
| 083 | 0,0003                     |
| 103 | 0,0007                     |
| 123 | 0,0010                     |
| 143 | 0,0023                     |
| 153 | 0,0035                     |
| 163 | 0,0093                     |

3.1.1 BA.2



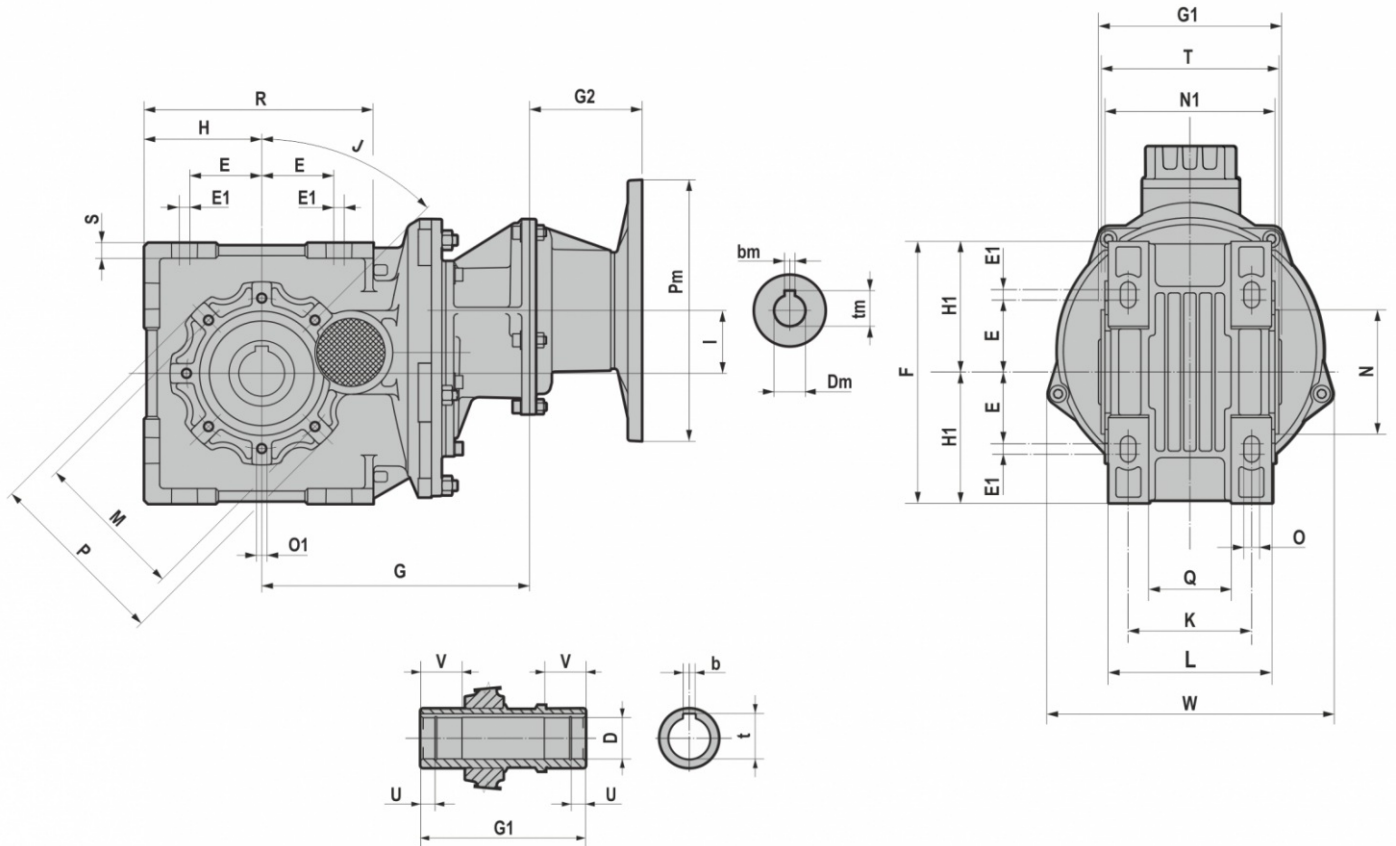
|      | DH7 | b  | t    | U  | V  | E  | E1 | F   | G     | G1  | H  | H1  | I   | J  | K    | L   | M   | N  | N1  | O  | O1        | P   | Q  | R     | S  | T   | W   |
|------|-----|----|------|----|----|----|----|-----|-------|-----|----|-----|-----|----|------|-----|-----|----|-----|----|-----------|-----|----|-------|----|-----|-----|
| BA42 | 20  | 6  | 22,8 | /  | 30 | 45 | /  | 130 | 95    | 100 | 65 | 65  | 8   | 45 | 73,5 | 90  | 85  | 70 | 92  | 9  | M8x12 n.4 | 100 | 45 | 127,5 | 8  | 97  | 152 |
| BA52 | 25  | 8  | 28,3 | /  | 30 | 55 | /  | 160 | 98    | 112 | 80 | 80  | 4,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153   | 10 | 108 | 152 |
|      | 28  | 8  | 31,1 | /  | 30 | 55 | /  | 160 | 98    | 112 | 80 | 80  | 4,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153   | 10 | 108 | 152 |
| BA72 | 35  | 10 | 38,3 | 12 | 35 | 55 | 8  | 200 | 129,5 | 140 | 90 | 100 | 16  | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175   | 12 | 136 | 218 |
|      | 30  | 8  | 33,3 | 12 | 35 | 55 | 8  | 200 | 129,5 | 140 | 90 | 100 | 16  | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175   | 12 | 136 | 218 |

| IEC     | Pm x Dm |         | G2        |      |
|---------|---------|---------|-----------|------|
|         | Pm x Dm | Pm x Dm | BA42-BA52 | BA72 |
| 063     | 140x11  | 090x11  | 55        | /    |
| 071     | 160x14  | 105x14  | 55        | /    |
| 080     | 200x19  | 120x19  | 86        | 87,5 |
| 090     | 200x24  | 140x24  | 86        | 87,5 |
| 100-112 | 250x28  | 160x28  | /         | 87,5 |

| B5  | Pm  | Dm | bm | tm   |
|-----|-----|----|----|------|
| 063 | 140 | 11 | 4  | 12,8 |
| 071 | 160 | 14 | 5  | 16,3 |
| 080 | 200 | 19 | 6  | 21,8 |
| 090 | 200 | 24 | 8  | 27,3 |
| 100 | 250 | 28 | 8  | 31,3 |
| 112 | 250 | 28 | 8  | 31,3 |

| B14 | Pm  | Dm | bm | tm   |
|-----|-----|----|----|------|
| 071 | 105 | 14 | 5  | 16,3 |
| 080 | 120 | 19 | 6  | 21,8 |
| 090 | 140 | 24 | 8  | 27,3 |
| 100 | 160 | 28 | 8  | 31,3 |
| 112 | 160 | 28 | 8  | 31,3 |

## 3.1.2 BA.3



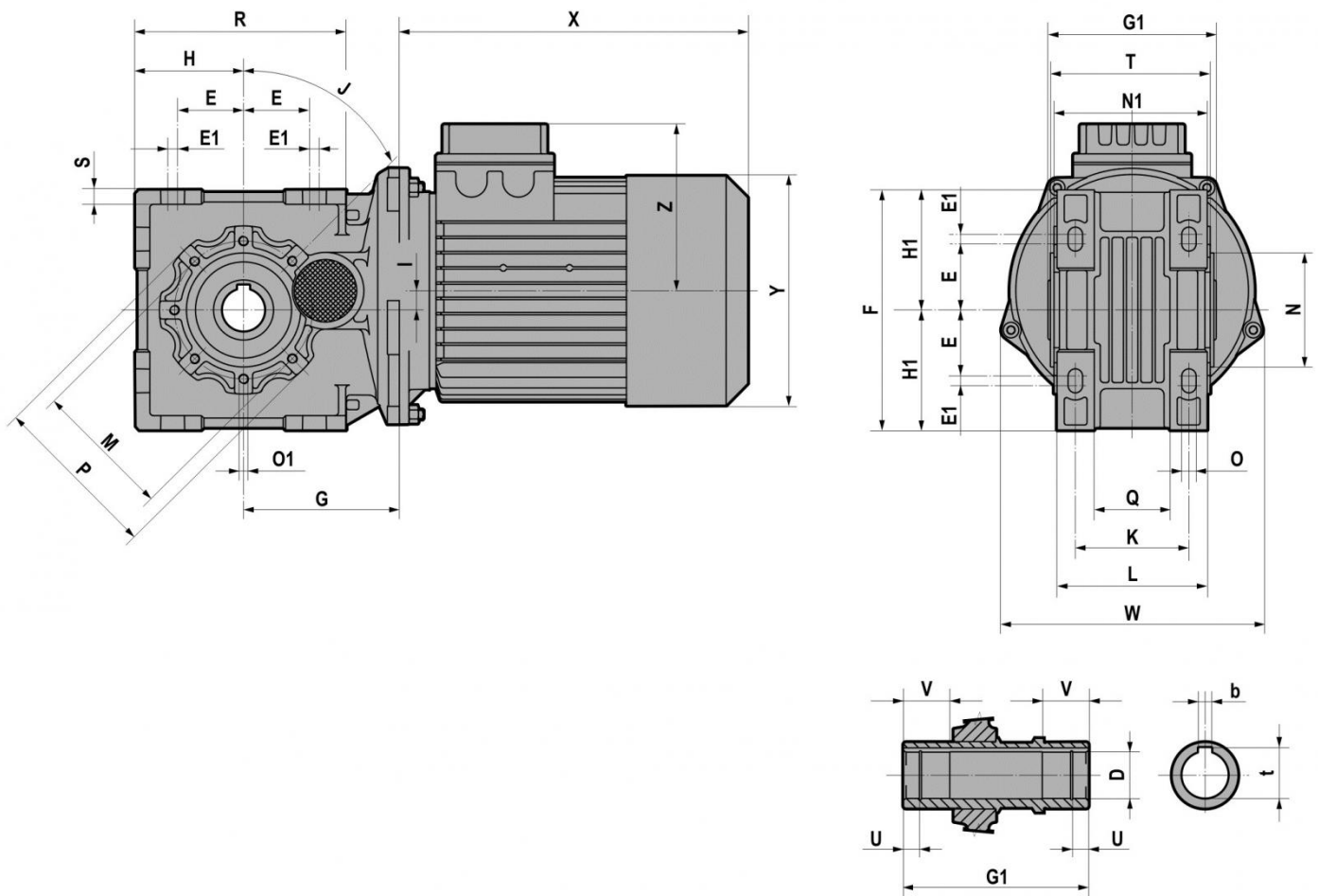
|      | DH7 | b  | t    | U  | V  | E  | E1 | F   | G     | G1  | H  | H1  | I    | J  | K    | L   | M   | N  | N1  | O  | O1        | P   | Q  | R   | S  | T   | W   |
|------|-----|----|------|----|----|----|----|-----|-------|-----|----|-----|------|----|------|-----|-----|----|-----|----|-----------|-----|----|-----|----|-----|-----|
| BA53 | 25  | 8  | 28,3 | /  | 30 | 55 | /  | 160 | 162   | 112 | 80 | 80  | 36,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153 | 10 | 108 | 152 |
|      | 28  | 8  | 31,1 |    |    |    |    |     |       |     |    |     |      |    |      |     |     |    |     |    |           |     |    |     |    |     |     |
| BA73 | 35  | 10 | 38,3 | 12 | 35 | 55 | 8  | 200 | 204,5 | 140 | 90 | 100 | 48   | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175 | 12 | 136 | 218 |
|      | 30  | 8  | 33,3 |    |    |    |    |     |       |     |    |     |      |    |      |     |     |    |     |    |           |     |    |     |    |     |     |

| IEC | Pm x Dm | Pm x Dm | G2        |
|-----|---------|---------|-----------|
|     |         |         | BA53-BA73 |
| 063 | 140X11  | 090x11  | 55        |
| 071 | 160X14  | 105x14  | 55        |
| 080 | 200X19  | 120x19  | 86        |
| 090 | 200X24  | 140x24  | 86        |

| B5  | Pm  | Dm | bm | tm   |
|-----|-----|----|----|------|
| 063 | 140 | 11 | 4  | 12,8 |
| 071 | 160 | 14 | 5  | 16,3 |
| 080 | 200 | 19 | 6  | 21,8 |
| 090 | 200 | 24 | 8  | 27,3 |

| B14 | Pm  | Dm | bm | tm   |
|-----|-----|----|----|------|
| 071 | 105 | 14 | 5  | 16,3 |
| 080 | 120 | 19 | 6  | 21,8 |
| 090 | 140 | 24 | 8  | 27,3 |

3.1.3 CBA.2



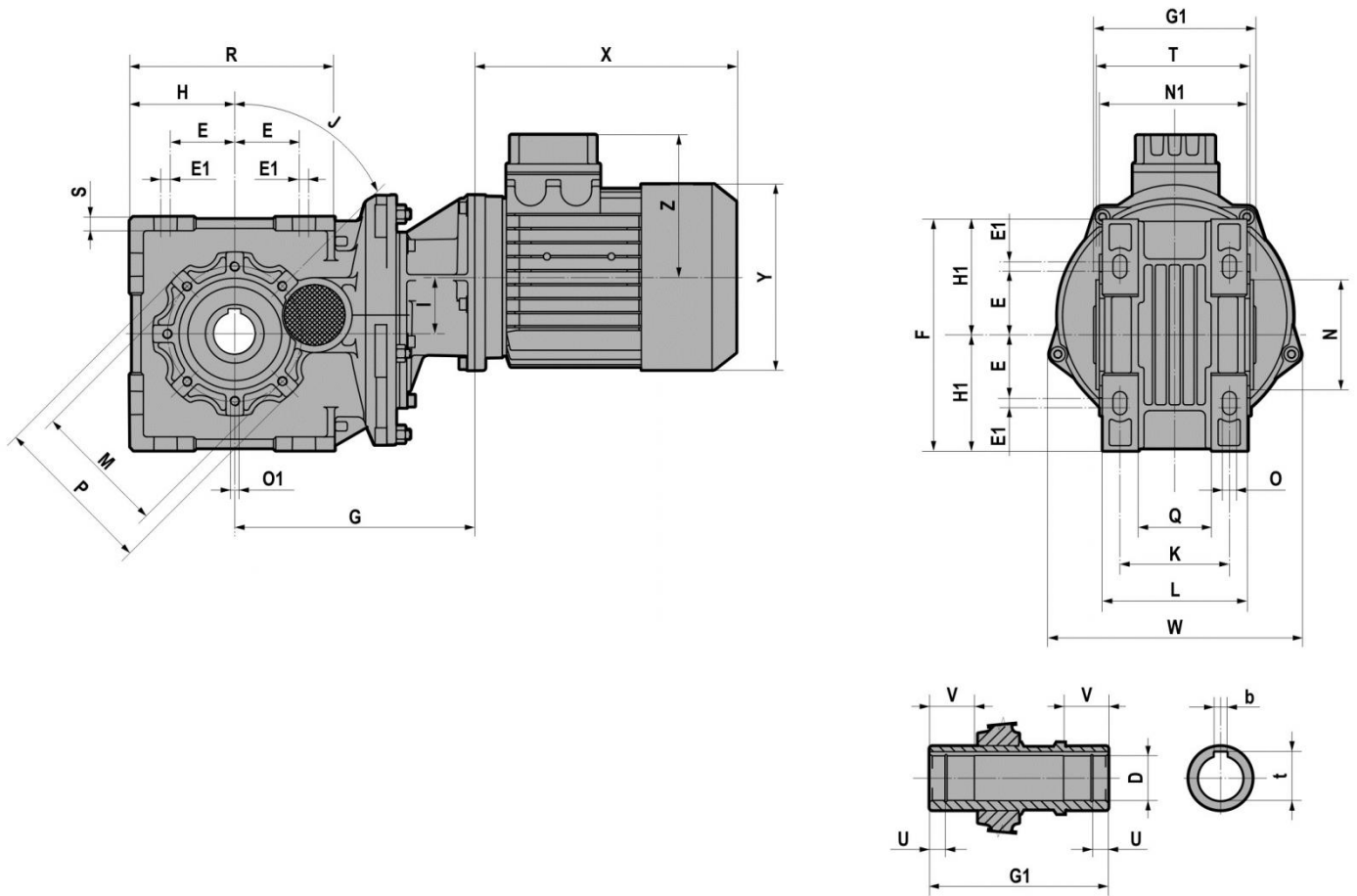
|       | D  | H7 | b    | t  | U  | V  | E | E1  | F     | G   | G1 | H   | H1  | I  | J    | K   | L   | M  | N   | N1 | O         | O1  | P  | Q     | R  | S   | T   | W |
|-------|----|----|------|----|----|----|---|-----|-------|-----|----|-----|-----|----|------|-----|-----|----|-----|----|-----------|-----|----|-------|----|-----|-----|---|
| CBA42 | 20 | 6  | 22,8 | /  | 30 | 45 | / | 130 | 95    | 100 | 65 | 65  | 8   | 45 | 73,5 | 90  | 85  | 70 | 92  | 9  | M8x12 n.4 | 100 | 45 | 127,5 | 8  | 97  | 152 |   |
|       | 25 | 8  | 28,3 | /  | 30 | 55 | / | 160 | 98    | 112 | 80 | 80  | 4,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153   | 10 | 108 | 152 |   |
| CBA52 | 28 | 8  | 31,1 | /  | 30 | 55 | / | 160 | 98    | 112 | 80 | 80  | 4,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153   | 10 | 108 | 152 |   |
|       | 35 | 10 | 38,3 | 12 | 35 | 55 | 8 | 200 | 129,5 | 140 | 90 | 100 | 16  | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175   | 12 | 136 | 218 |   |
| CBA72 | 30 | 8  | 33,3 |    |    |    |   |     |       |     |    |     |     |    |      |     |     |    |     |    |           |     |    |       |    |     |     |   |

|                |   | T (IE1 - IE2 - IE3) |     |               |               |               |     |               |
|----------------|---|---------------------|-----|---------------|---------------|---------------|-----|---------------|
|                |   | O63                 | O71 | O80           | O90S          | O90L          | 100 | 112           |
| CBA42<br>CBA52 | X | 180                 | 205 | 223<br>*(246) | 237<br>*(270) | 262<br>*(295) | /   | /             |
|                | Y | 121                 | 139 | 158           | 173           | 173           | /   | /             |
|                | Z | 104                 | 112 | 122           | 130           | 130           | /   | /             |
| CBA72          | X | /                   | /   | 218<br>*(241) | 232<br>*(265) | 257<br>*(290) | 290 | 302<br>*(326) |
|                | Y | /                   | /   | 158           | 173           | 173           | 191 | 211           |
|                | Z | /                   | /   | 122           | 130           | 130           | 139 | 154           |

|                |   | TB (IE1 - IE2 - IE3) |       |               |               |               |     |               |
|----------------|---|----------------------|-------|---------------|---------------|---------------|-----|---------------|
|                |   | O63                  | O71   | O80           | O90S          | O90L          | 100 | 112           |
| CBA42<br>CBA52 | X | 238                  | 270,5 | 294<br>*(317) | 313<br>*(346) | 338<br>*(371) | /   | /             |
|                | Y | 121                  | 139   | 158           | 173           | 173           | /   | /             |
|                | Z | 119                  | 129   | 137           | 157           | 157           | /   | /             |
| CBA72          | X | /                    | /     | 290<br>*(313) | 309<br>*(342) | 334<br>*(367) | 372 | 400<br>*(424) |
|                | Y | /                    | /     | 158           | 173           | 173           | 191 | 211           |
|                | Z | /                    | /     | 137           | 157           | 157           | 168 | 183           |

\*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

3.1.4 CBA.3



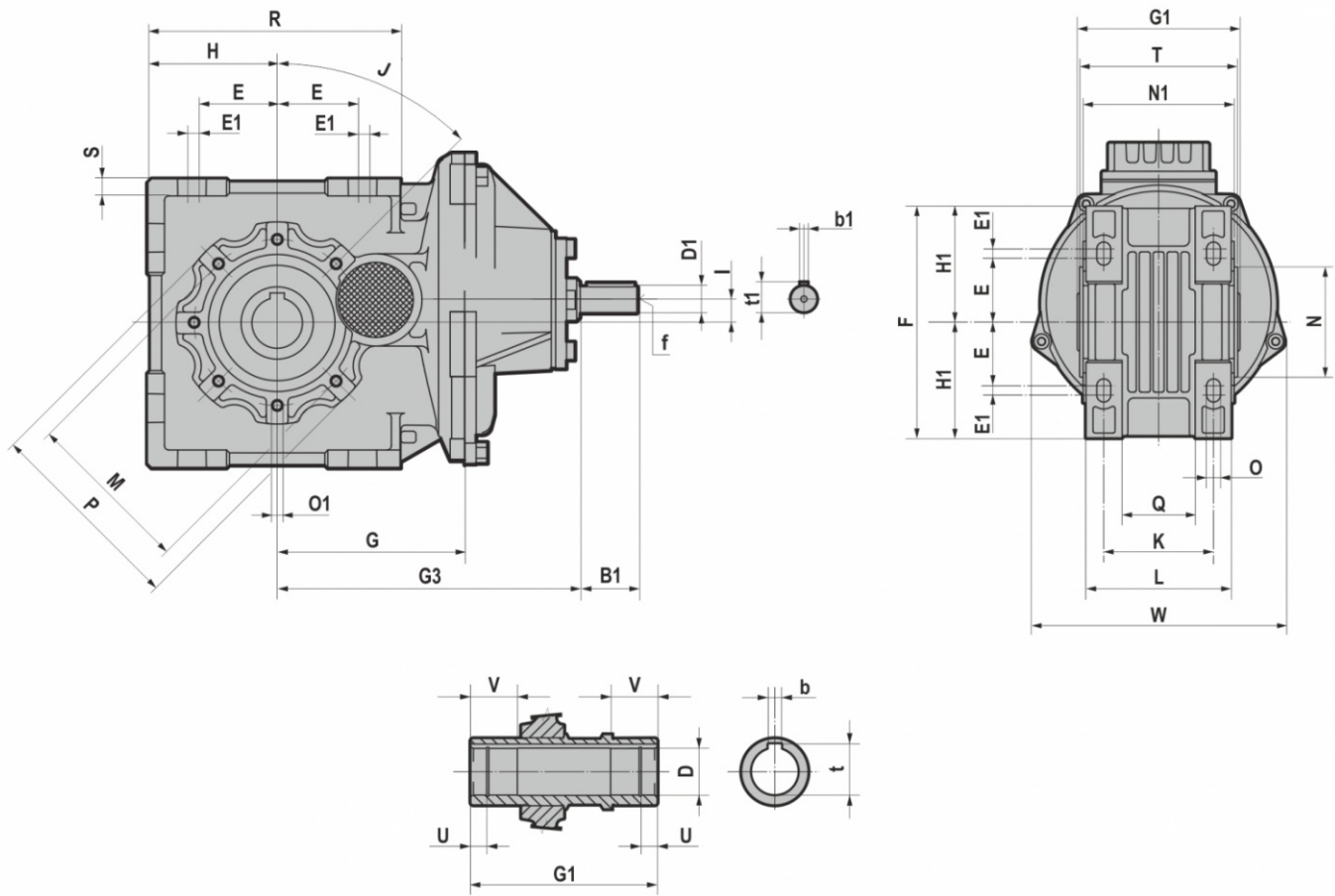
|       | DH7 | b  | t    | U  | V  | E  | E1 | F   | G     | G1  | H  | H1  | I    | J  | K    | L   | M   | N  | N1  | O  | O1        | P   | Q  | R   | S  | T   | W   |
|-------|-----|----|------|----|----|----|----|-----|-------|-----|----|-----|------|----|------|-----|-----|----|-----|----|-----------|-----|----|-----|----|-----|-----|
| CBA53 | 25  | 8  | 28,3 | /  | 30 | 55 | /  | 160 | 162   | 112 | 80 | 80  | 36,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153 | 10 | 108 | 152 |
|       | 28  | 8  | 31,1 |    | 35 | 55 | 8  | 200 | 204,5 | 140 | 90 | 100 | 48   | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175 | 12 | 136 | 218 |
| CBA73 | 35  | 10 | 38,3 | 12 | 35 | 55 | 8  | 200 | 204,5 | 140 | 90 | 100 | 48   | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175 | 12 | 136 | 218 |
|       | 30  | 8  | 33,3 |    | 35 | 55 | 8  | 200 | 204,5 | 140 | 90 | 100 | 48   | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175 | 12 | 136 | 218 |

|                |   | T (IE1 - IE2 - IE3) |     |               |               |               |
|----------------|---|---------------------|-----|---------------|---------------|---------------|
|                |   | O63                 | O71 | O80           | O90S          | O90L          |
| CBA53<br>CBA73 | X | 180                 | 205 | 223<br>*(246) | 237<br>*(270) | 262*<br>(295) |
|                | Y | 121                 | 139 | 158           | 173           | 173           |
|                | Z | 104                 | 112 | 122           | 130           | 130           |

|                |   | TB (IE1 - IE2 - IE3) |       |               |               |               |
|----------------|---|----------------------|-------|---------------|---------------|---------------|
|                |   | O63                  | O71   | O80           | O90S          | O90L          |
| CBA53<br>CBA73 | X | 238                  | 270,5 | 294<br>*(317) | 313<br>*(346) | 338<br>*(371) |
|                | Y | 121                  | 139   | 158           | 173           | 173           |
|                | Z | 119                  | 129   | 137           | 157           | 157           |

\*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

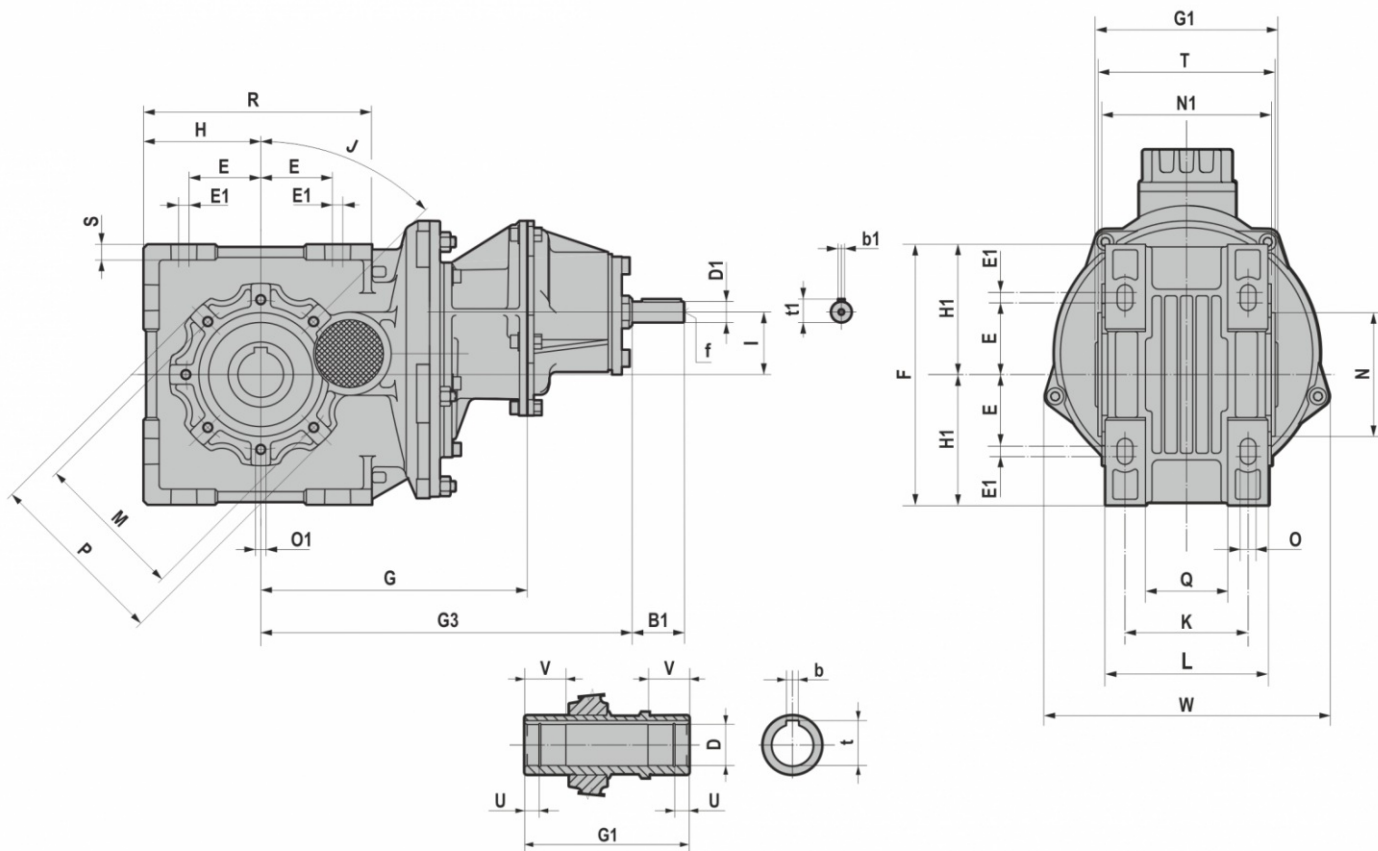
3.1.5 IBA.2



|       | DH7 | b  | t    | U  | V  | E  | E1 | F   | G     | G1  | H  | H1  | I   | J  | K    | L   | M   | N  | N1  | O  | O1        | P   | Q  | R     | S  | T   | W   |
|-------|-----|----|------|----|----|----|----|-----|-------|-----|----|-----|-----|----|------|-----|-----|----|-----|----|-----------|-----|----|-------|----|-----|-----|
| IBA42 | 20  | 6  | 22,8 | /  | 30 | 45 | /  | 130 | 95    | 100 | 65 | 65  | 8   | 45 | 73,5 | 90  | 85  | 70 | 92  | 9  | M8x12 n.4 | 100 | 45 | 127,5 | 8  | 97  | 152 |
| IBA52 | 25  | 8  | 28,3 | /  | 30 | 55 | /  | 160 | 98    | 112 | 80 | 80  | 4,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153   | 10 | 108 | 152 |
|       | 28  | 8  | 31,1 | /  | 30 | 55 | /  | 160 | 98    | 112 | 80 | 80  | 4,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153   | 10 | 108 | 152 |
| IBA72 | 35  | 10 | 38,3 | 12 | 35 | 55 | 8  | 200 | 129,5 | 140 | 90 | 100 | 16  | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175   | 12 | 136 | 218 |
|       | 30  | 8  | 33,3 | 12 | 35 | 55 | 8  | 200 | 129,5 | 140 | 90 | 100 | 16  | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175   | 12 | 136 | 218 |

|       | G3    | D1 | B1 | b1 | t1   | f  |
|-------|-------|----|----|----|------|----|
| IBA42 | 175,5 | 16 | 40 | 5  | 18   | M6 |
| IBA52 | 179   | 16 | 40 | 5  | 18   | M6 |
| IBA72 | 210   | 19 | 40 | 6  | 21,5 | M6 |

3.1.6 IBA.3

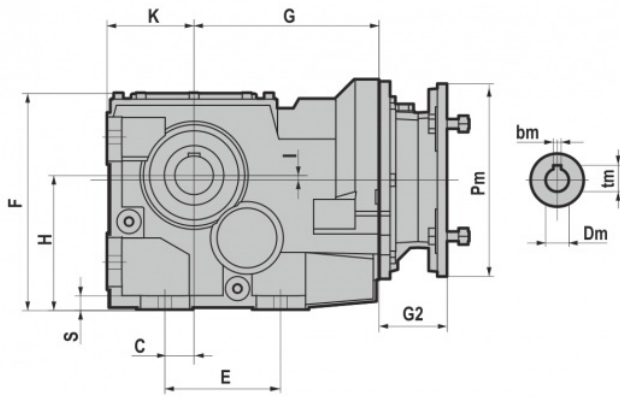


|       | D  | H7 | b    | t  | U  | V  | E | E1  | F     | G   | G1 | H   | H1   | I  | J    | K   | L   | M  | N   | N1 | O         | O1  | P  | Q   | R  | S   | T   | W |
|-------|----|----|------|----|----|----|---|-----|-------|-----|----|-----|------|----|------|-----|-----|----|-----|----|-----------|-----|----|-----|----|-----|-----|---|
| IBA53 | 25 | 8  | 28,3 | /  | 30 | 55 | / | 160 | 162   | 112 | 80 | 80  | 36,2 | 45 | 80   | 100 | 95  | 80 | 102 | 9  | M8x14 n.6 | 110 | 51 | 153 | 10 | 108 | 152 |   |
|       | 28 | 8  | 31,1 |    |    |    |   |     |       |     |    |     |      |    |      |     |     |    |     |    |           |     |    |     |    |     |     |   |
| IBA73 | 35 | 10 | 38,3 | 12 | 35 | 55 | 8 | 200 | 204,5 | 140 | 90 | 100 | 48   | 45 | 94,5 | 125 | 115 | 95 | 130 | 12 | M8x14 n.7 | 136 | 63 | 175 | 12 | 136 | 218 |   |
|       | 30 | 8  | 33,3 |    |    |    |   |     |       |     |    |     |      |    |      |     |     |    |     |    |           |     |    |     |    |     |     |   |

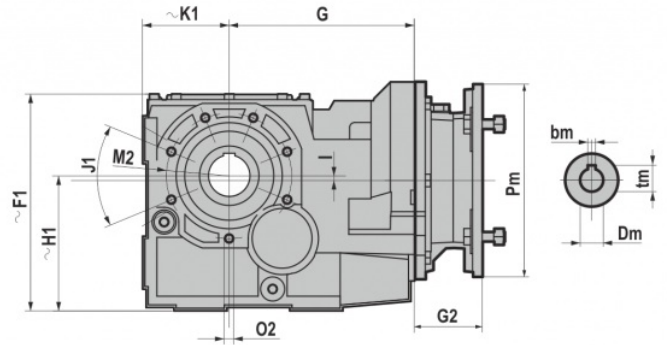
|       | G3    | D1 | B1 | b1 | t1 | f  |
|-------|-------|----|----|----|----|----|
| IBA53 | 242,5 | 16 | 40 | 5  | 18 | M6 |
| IBA73 | 285   | 16 | 40 | 5  | 18 | M6 |

3.1.7 B

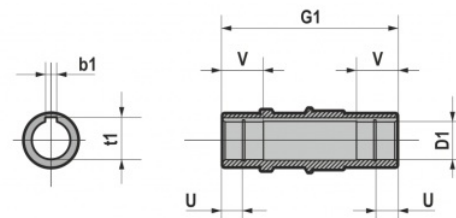
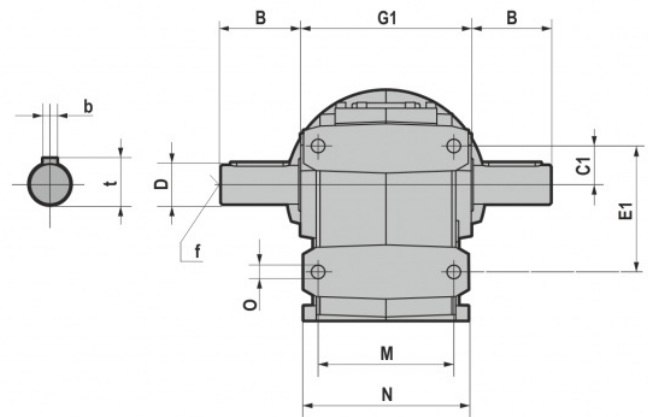
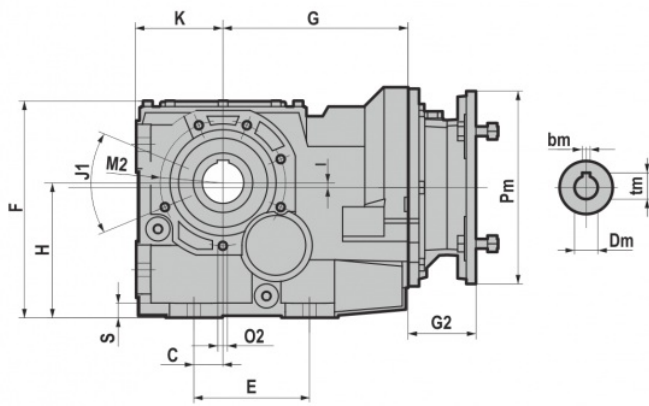
**B...F**



**B...S**



**B...U**





### 3.1 REDUCERS/GEARED MOTORS

|             | D1 H7 | b1 | t1    | U     | V   | B   | D      | b  | t    | f   | C   | C1  | E   | E1  | F   | F1    |
|-------------|-------|----|-------|-------|-----|-----|--------|----|------|-----|-----|-----|-----|-----|-----|-------|
| <b>B063</b> | 35    | 10 | 38,3  | 12    | 35  | 58  | 35 k6  | 10 | 38   | M12 | 30  | 39  | 130 | 126 | 215 | 219,5 |
|             | 40    | 12 | 43,3  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| <b>B083</b> | 40    | 12 | 43,3  | 22,25 | 42  | 80  | 40 k6  | 12 | 43   | M16 | 30  | 40  | 120 | 130 | 225 | 225   |
|             | 45    | 14 | 47,6  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| <b>B103</b> | 45    | 14 | 48,8  | 22,25 | 50  | 100 | 50 k6  | 14 | 53,5 | M16 | 40  | 50  | 150 | 160 | 283 | 283   |
|             | 50    | 14 | 53,8  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| <b>B123</b> | 55    | 16 | 59,3  | 28    | 70  | 120 | 60 m6  | 18 | 64   | M20 | 55  | 78  | 180 | 220 | 341 | 342   |
|             | 60    | 18 | 64,4  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| <b>B143</b> | 70    | 20 | 74,9  | 27,5  | 75  | 140 | 70 m6  | 20 | 74,5 | M20 | 75  | 90  | 240 | 280 | 423 | /     |
| <b>B153</b> | 90    | 25 | 95,4  | 34    | 90  | 170 | 90 m6  | 25 | 95   | M20 | 95  | 110 | 280 | 330 | 498 | /     |
|             | 80    | 22 | 85,4  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| <b>B163</b> | 100   | 28 | 106,4 | 40    | 100 | 210 | 110 m6 | 28 | 116  | M20 | 115 | 155 | 350 | 420 | 615 | /     |

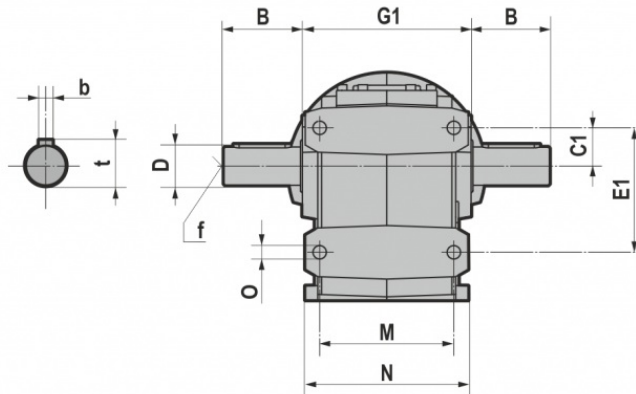
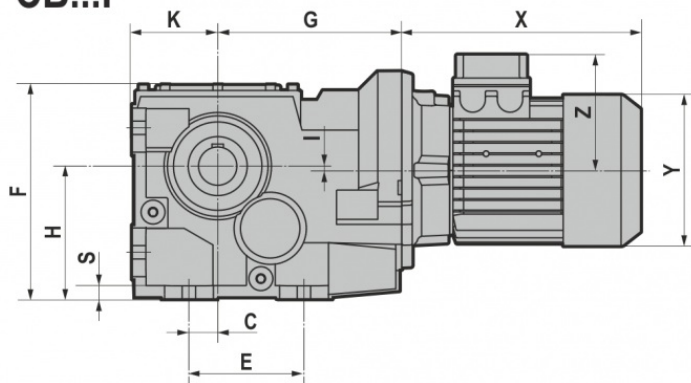
|             | G     | G1  | H   | H1  | I    | K     | K1   | M   | N   | O  | S  | J1 | M2  | O2             |
|-------------|-------|-----|-----|-----|------|-------|------|-----|-----|----|----|----|-----|----------------|
| <b>B063</b> | 174   | 140 | 132 | 137 | 33   | 88    | 92,5 | 104 | 126 | 14 | 12 | 45 | 130 | M10x20 (n.6)   |
| <b>B083</b> | 192   | 180 | 140 | 140 | 5    | 90    | 90   | 140 | 170 | 14 | 15 | 45 | 130 | M10x20 (n.6/7) |
| <b>B103</b> | 213,5 | 210 | 180 | 180 | 25   | 112   | 112  | 165 | 205 | 18 | 18 | 45 | 165 | M12x22 (n.6/7) |
| <b>B123</b> | 246   | 240 | 212 | 213 | 33,5 | 132   | 133  | 180 | 230 | 22 | 22 | 45 | 185 | M14x28 (n.7)   |
| <b>B143</b> | 279   | 300 | 265 | /   | 34   | 160   | /    | 240 | 290 | 22 | 22 | 45 | 200 | M14x30 (n.7)   |
| <b>B153</b> | 353   | 350 | 315 | /   | 35   | 200   | /    | 270 | 330 | 26 | 26 | 45 | 245 | M16x32 (n.7)   |
| <b>B163</b> | 426,5 | 445 | 375 | /   | 47   | 230,5 | /    | 330 | 400 | 38 | 45 | 45 | 298 | M18x40 (n.6)   |

|                |         | G2    |       |       |       |       |       |       |
|----------------|---------|-------|-------|-------|-------|-------|-------|-------|
| IEC            | Pm x Dm | B063  | B083  | B103  | B123  | B143  | B153  | B163  |
| <b>063</b>     | 140x11  | 57    | /     | /     | /     | /     | /     | /     |
| <b>071</b>     | 160x14  | 69,0  | /     | /     | /     | /     | /     | /     |
| <b>080</b>     | 200x19  | 90,0  | 70,0  | 70,0  | /     | /     | /     | /     |
| <b>090</b>     | 200x24  | 90,0  | 70,0  | 70,0  | 60,5  | /     | /     | /     |
| <b>100-112</b> | 250x28  | 105,0 | 85,0  | 85,0  | 75,5  | 75,5  | /     | /     |
| <b>132</b>     | 300x38  | /     | 110,0 | 110,0 | 100,5 | 100,5 | 76,0  | /     |
| <b>160</b>     | 350x42  | /     | /     | 157,5 | 148,0 | 148,0 | 123,5 | /     |
| <b>180</b>     | 350x48  | /     | /     | /     | 148,0 | 148,0 | 123,5 | 109,0 |
| <b>200</b>     | 400x55  | /     | /     | /     | /     | 185,0 | 160,5 | 146,0 |
| <b>225</b>     | 450x60  | /     | /     | /     | /     | /     | 160,5 | 146,0 |
| <b>250</b>     | 550*65  | /     | /     | /     | /     | /     | /     | 175,0 |
| <b>280</b>     | 550*75  | /     | /     | /     | /     | /     | /     | 175,0 |

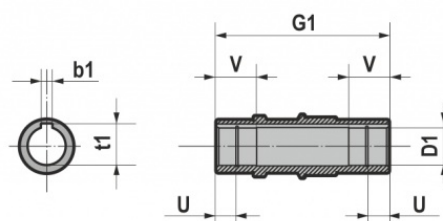
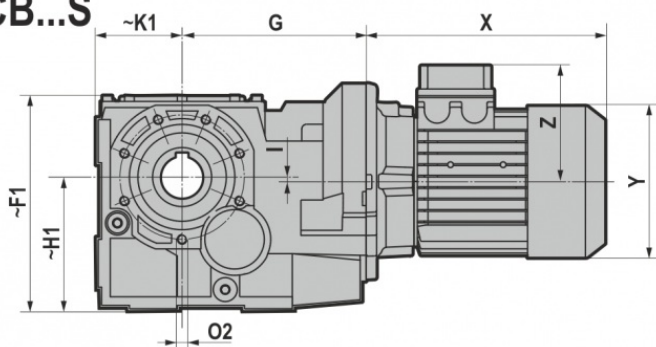
| B5         | Pm  | Dm | bm | tm   |
|------------|-----|----|----|------|
| <b>063</b> | 140 | 11 | 4  | 12,8 |
| <b>071</b> | 160 | 14 | 5  | 16,3 |
| <b>080</b> | 200 | 19 | 6  | 21,8 |
| <b>090</b> | 200 | 24 | 8  | 27,3 |
| <b>100</b> | 250 | 28 | 8  | 31,3 |
| <b>112</b> | 250 | 28 | 8  | 31,3 |
| <b>132</b> | 300 | 38 | 10 | 41,3 |
| <b>160</b> | 350 | 42 | 12 | 45,3 |
| <b>180</b> | 350 | 48 | 14 | 51,8 |
| <b>200</b> | 400 | 55 | 16 | 59,3 |
| <b>225</b> | 450 | 60 | 18 | 64,4 |
| <b>250</b> | 550 | 65 | 18 | 69,4 |
| <b>280</b> | 550 | 75 | 20 | 79,9 |

3.1.8 CB

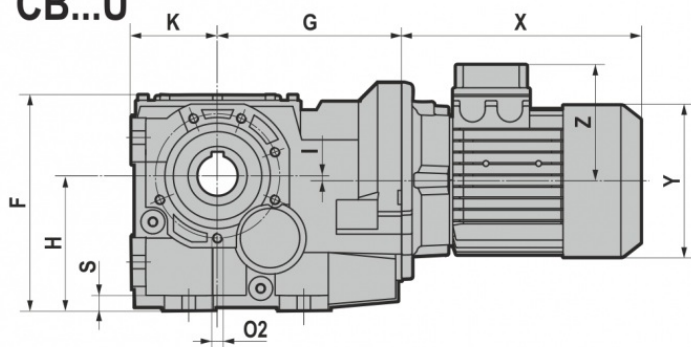
CB...F



CB...S



CB...U



### 3.1 REDUCERS/GEARED MOTORS

|       | D1 H7 | b1 | t1    | U     | V   | B   | D      | b  | t    | f   | C   | C1  | E   | E1  | F   | F1    |
|-------|-------|----|-------|-------|-----|-----|--------|----|------|-----|-----|-----|-----|-----|-----|-------|
| CB063 | 35    | 10 | 38,3  | 12    | 35  | 58  | 35 k6  | 10 | 38   | M12 | 30  | 39  | 130 | 126 | 215 | 219,5 |
|       | 40    | 12 | 43,3  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| CB083 | 40    | 12 | 43,3  | 22,25 | 42  | 80  | 40 k6  | 12 | 43   | M16 | 30  | 40  | 120 | 130 | 225 | 225   |
|       | 45    | 14 | 47,6  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| CB103 | 45    | 14 | 48,8  | 22,25 | 50  | 100 | 50 k6  | 14 | 53,5 | M16 | 40  | 50  | 150 | 160 | 283 | 283   |
|       | 50    | 14 | 53,8  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| CB123 | 55    | 16 | 59,3  | 28    | 70  | 120 | 60 m6  | 18 | 64   | M20 | 55  | 78  | 180 | 220 | 341 | 342   |
|       | 60    | 18 | 64,4  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| CB143 | 70    | 20 | 74,9  | 27,5  | 75  | 140 | 70 m6  | 20 | 74,5 | M20 | 75  | 90  | 240 | 280 | 423 | /     |
| CB153 | 90    | 25 | 95,4  | 34    | 90  | 170 | 90 m6  | 25 | 95   | M20 | 95  | 110 | 280 | 330 | 498 | /     |
|       | 80    | 22 | 85,4  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| CB163 | 100   | 28 | 106,4 | 40    | 100 | 210 | 110 m6 | 28 | 116  | M20 | 115 | 155 | 350 | 420 | 615 | /     |

|       | G     | G1  | H   | H1  | I    | K     | K1   | M   | N   | O  | S  | J1 | M2  | O2             |
|-------|-------|-----|-----|-----|------|-------|------|-----|-----|----|----|----|-----|----------------|
| CB063 | 174   | 140 | 132 | 137 | 33   | 88    | 92,5 | 104 | 126 | 14 | 12 | 45 | 130 | M10x20 (n.6)   |
| CB083 | 192   | 180 | 140 | 140 | 5    | 90    | 90   | 140 | 170 | 14 | 15 | 45 | 130 | M10x20 (n.6/7) |
| CB103 | 213,5 | 210 | 180 | 180 | 25   | 112   | 112  | 165 | 205 | 18 | 18 | 45 | 165 | M12x22 (n.6/7) |
| CB123 | 246   | 240 | 212 | 213 | 33,5 | 132   | 133  | 180 | 230 | 22 | 22 | 45 | 185 | M14x28 (n.7)   |
| CB143 | 279   | 300 | 265 | /   | 34   | 160   | /    | 240 | 290 | 22 | 22 | 45 | 200 | M14x30 (n.7)   |
| CB153 | 353   | 350 | 315 | /   | 35   | 200   | /    | 270 | 330 | 26 | 26 | 45 | 245 | M16x32 (n.7)   |
| CB163 | 426,5 | 445 | 375 | /   | 47   | 230,5 | /    | 330 | 400 | 38 | 45 | 45 | 298 | M18x40 (n.6)   |

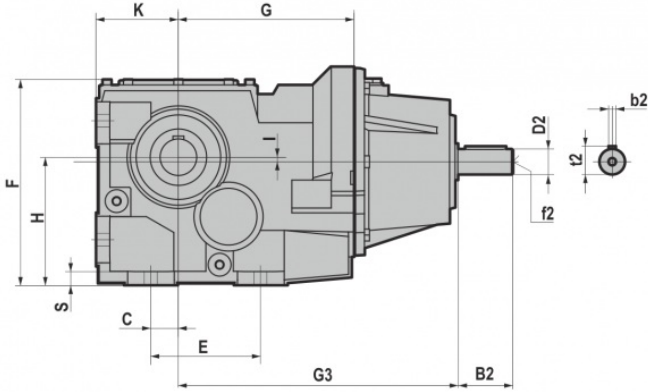
|                |   | T (IE1 - IE2 - IE3) |     |               |               |               |     |               |      |      |
|----------------|---|---------------------|-----|---------------|---------------|---------------|-----|---------------|------|------|
|                |   | O63                 | O71 | O80           | O90S          | O90L          | 100 | 112           | 132S | 132M |
| CB063          | X | 215                 | 241 | 268<br>*(291) | 296<br>*(329) | 321<br>*(354) | 333 | 351<br>*(375) | /    | /    |
|                | Y | 121                 | 139 | 158           | 173           | 173           | 191 | 211           | /    | /    |
|                | Z | 104                 | 112 | 122           | 130           | 130           | 139 | 154           | /    | /    |
| CB083<br>CB103 | X | /                   | 221 | 248<br>*(271) | 276<br>*(309) | 301<br>*(334) | 335 | 356<br>*(380) | 405  | 443  |
|                | Y | /                   | 139 | 158           | 173           | 173           | 191 | 211           | 249  | 249  |
|                | Z | /                   | 112 | 122           | 130           | 130           | 139 | 154           | 194  | 194  |
| CB123<br>CB143 | X | /                   | /   | /             | 267<br>*(300) | 292<br>*(325) | 326 | 347<br>*(371) | 396  | 434  |
|                | Y | /                   | /   | /             | 173           | 173           | 191 | 211           | 249  | 249  |
|                | Z | /                   | /   | /             | 130           | 130           | 139 | 154           | 194  | 194  |

|                |   | TB (IE1 - IE2 - IE3) |     |               |               |               |     |               |      |      |
|----------------|---|----------------------|-----|---------------|---------------|---------------|-----|---------------|------|------|
|                |   | O63                  | O71 | O80           | O90S          | O90L          | 100 | 112           | 132S | 132M |
| CB063          | X | 273                  | 307 | 341<br>*(364) | 373<br>*(406) | 398<br>*(431) | 415 | 448<br>*(472) | /    | /    |
|                | Y | 121                  | 139 | 158           | 173           | 173           | 191 | 211           | /    | /    |
|                | Z | 119                  | 129 | 137           | 157           | 157           | 168 | 183           | /    | /    |
| CB083<br>CB103 | X | /                    | 287 | 321<br>*(344) | 353<br>*(386) | 378<br>*(411) | 417 | 453<br>*(477) | 505  | 547  |
|                | Y | /                    | 139 | 158           | 173           | 173           | 191 | 211           | 249  | 249  |
|                | Z | /                    | 129 | 137           | 157           | 157           | 168 | 183           | 230  | 230  |
| CB123<br>CB143 | X | /                    | /   | /             | 343<br>*(376) | 368<br>*(401) | 407 | 443<br>*(467) | 495  | 537  |
|                | Y | /                    | /   | /             | 173           | 173           | 191 | 211           | 249  | 249  |
|                | Z | /                    | /   | /             | 157           | 157           | 168 | 183           | 230  | 230  |

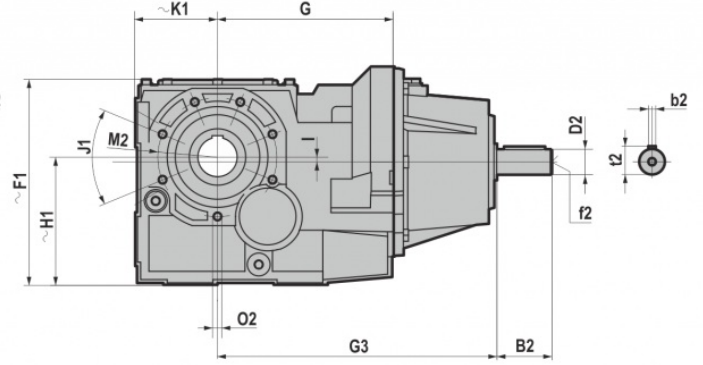
\*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

3.1.9 IB

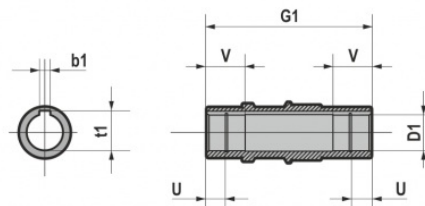
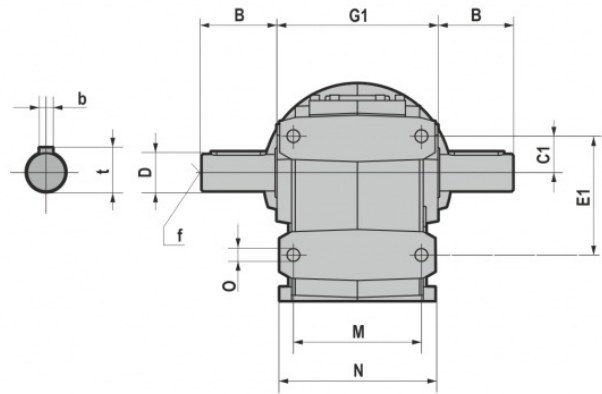
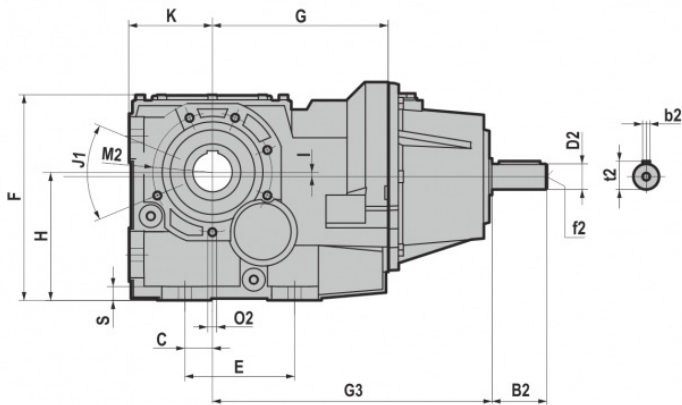
IB...F



IB...S



IB...U



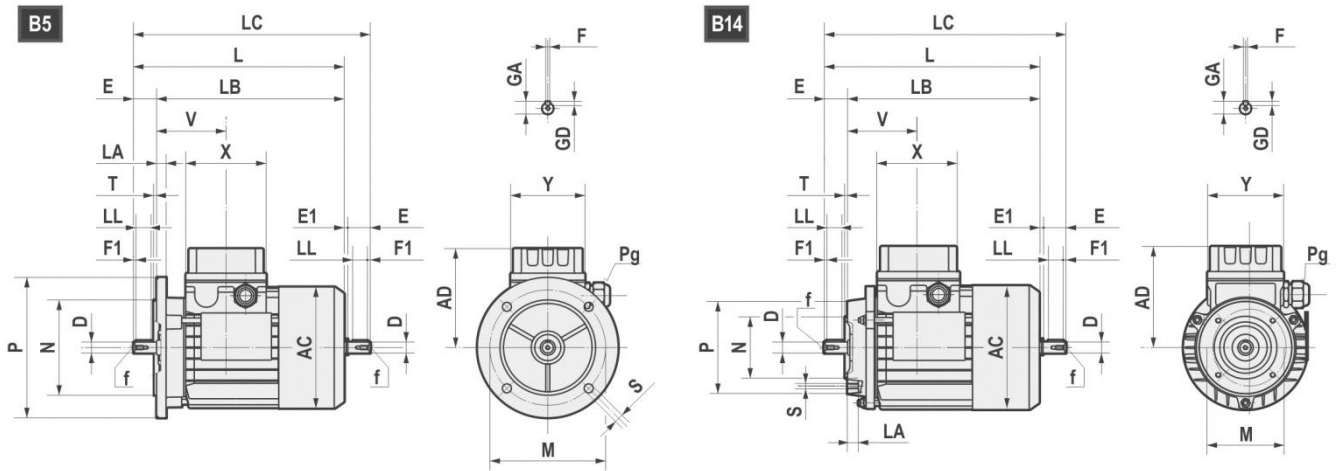
## 3.1 REDUCERS/GEARED MOTORS

|       | D1 H7 | b1 | t1    | U     | V   | B   | D      | b  | t    | f   | C   | C1  | E   | E1  | F   | F1    |
|-------|-------|----|-------|-------|-----|-----|--------|----|------|-----|-----|-----|-----|-----|-----|-------|
| IB063 | 35    | 10 | 38,3  | 12    | 35  | 58  | 35 k6  | 10 | 38   | M12 | 30  | 39  | 130 | 126 | 215 | 219,5 |
|       | 40    | 12 | 43,3  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| IB083 | 40    | 12 | 43,3  | 22,25 | 42  | 80  | 40 k6  | 12 | 43   | M16 | 30  | 40  | 120 | 130 | 225 | 225   |
|       | 45    | 14 | 47,6  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| IB103 | 45    | 14 | 48,8  | 22,25 | 50  | 100 | 50 k6  | 14 | 53,5 | M16 | 40  | 50  | 150 | 160 | 283 | 283   |
|       | 50    | 14 | 53,8  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| IB123 | 55    | 16 | 59,3  | 28    | 70  | 120 | 60 m6  | 18 | 64   | M20 | 55  | 78  | 180 | 220 | 341 | 342   |
|       | 60    | 18 | 64,4  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| IB143 | 70    | 20 | 74,9  | 27,5  | 75  | 140 | 70 m6  | 20 | 74,5 | M20 | 75  | 90  | 240 | 280 | 423 | /     |
| IB153 | 90    | 25 | 95,4  | 34    | 90  | 170 | 90 m6  | 25 | 95   | M20 | 95  | 110 | 280 | 330 | 498 | /     |
|       | 80    | 22 | 85,4  |       |     |     |        |    |      |     |     |     |     |     |     |       |
| IB163 | 100   | 28 | 106,4 | 40    | 100 | 210 | 110 m6 | 28 | 116  | M20 | 115 | 155 | 350 | 420 | 615 | /     |

|       | G     | G1  | H   | H1  | I    | K     | K1   | M   | N   | O  | S  | J1 | M2  | O2             |
|-------|-------|-----|-----|-----|------|-------|------|-----|-----|----|----|----|-----|----------------|
| IB063 | 174   | 140 | 132 | 137 | 33   | 88    | 92,5 | 104 | 126 | 14 | 12 | 45 | 130 | M10x20 (n.6)   |
| IB083 | 192   | 180 | 140 | 140 | 5    | 90    | 90   | 140 | 170 | 14 | 15 | 45 | 130 | M10x20 (n.6/7) |
| IB103 | 213,5 | 210 | 180 | 180 | 25   | 112   | 112  | 165 | 205 | 18 | 18 | 45 | 165 | M12x22 (n.6/7) |
| IB123 | 246   | 240 | 212 | 213 | 33,5 | 132   | 133  | 180 | 230 | 22 | 22 | 45 | 185 | M14x28 (n.7)   |
| IB143 | 279   | 300 | 265 | /   | 34   | 160   | /    | 240 | 290 | 22 | 22 | 45 | 200 | M14x30 (n.7)   |
| IB153 | 353   | 350 | 315 | /   | 35   | 200   | /    | 270 | 330 | 26 | 26 | 45 | 245 | M16x32 (n.7)   |
| IB163 | 426,5 | 445 | 375 | /   | 47   | 230,5 | /    | 330 | 400 | 38 | 45 | 45 | 298 | M18x40 (n.6)   |

|       | G3    | B2  | D2    | b2 | t2   | f2  |
|-------|-------|-----|-------|----|------|-----|
| IB063 | 264   | 50  | 24 j6 | 8  | 27   | M8  |
| IB083 | 305   | 60  | 28 j6 | 8  | 31   | M10 |
| IB103 | 326,5 | 60  | 28 j6 | 8  | 31   | M10 |
| IB123 | 372,5 | 80  | 38 k6 | 10 | 41   | M12 |
| IB143 | 405,5 | 80  | 38 k6 | 10 | 41   | M12 |
| IB153 | 493   | 110 | 42 k6 | 12 | 45   | M16 |
| IB163 | 561,5 | 110 | 48 k6 | 14 | 51,5 | M16 |

## 3.2.1 Electric motors



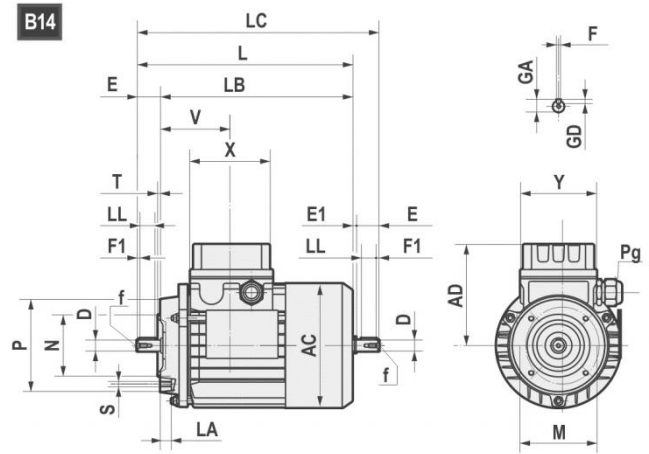
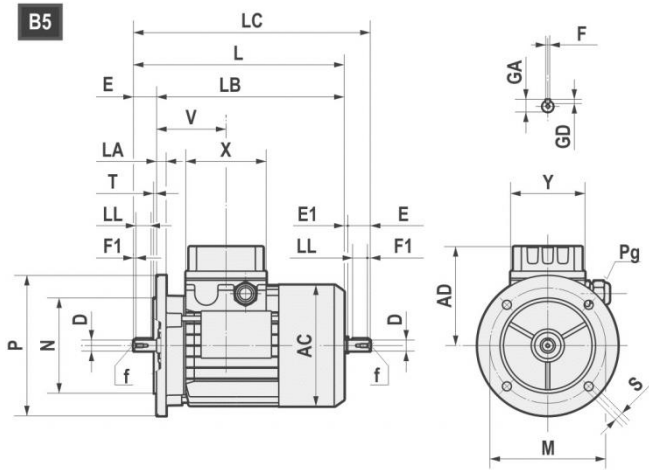
|             | AC  | AD  | L               | LB              | LC              | X   | Y   | V     | D     | E   | E1  | f       | F1  | GA   | F  | GD |
|-------------|-----|-----|-----------------|-----------------|-----------------|-----|-----|-------|-------|-----|-----|---------|-----|------|----|----|
| <b>63</b>   | 121 | 104 | 211             | 188             | 235,5           | 80  | 74  | 69    | 11 j6 | 23  | 1,5 | M4x10   | 2,5 | 12,5 | 4  | 4  |
| <b>71</b>   | 139 | 112 | 238,5           | 208,5           | 271             | 80  | 74  | 74,5  | 14 j6 | 30  | 2,5 | M5x12,5 | 3   | 16   | 5  | 5  |
| <b>80</b>   | 158 | 122 | 272,5<br>*(296) | 232,5<br>*(256) | 314<br>*(337)   | 80  | 74  | 78    | 19 j6 | 40  | 1,5 | M6x16   | 5   | 21,5 | 6  | 6  |
| <b>90S</b>  | 173 | 146 | 298<br>*(331)   | 248<br>*(281)   | 349,5<br>*(381) | 98  | 98  | 89,5  | 24 j6 | 50  | 1,5 | M8x19   | 5   | 27   | 8  | 7  |
| <b>90L</b>  | 173 | 146 | 323<br>*(356)   | 273<br>*(306)   | 374,5<br>*(408) | 98  | 98  | 89,5  | 24 j6 | 50  | 1,5 | M8x19   | 5   | 27   | 8  | 7  |
| <b>100</b>  | 191 | 155 | 368             | 308             | 431,5           | 98  | 98  | 97,5  | 28 j6 | 60  | 3,5 | M10x22  | 7,5 | 31   | 8  | 7  |
| <b>112</b>  | 211 | 170 | 382,5<br>*(408) | 322,5<br>*(348) | 447<br>*(472)   | 98  | 98  | 100   | 28 j6 | 60  | 3,5 | M10x22  | 7,5 | 31   | 8  | 7  |
| <b>132S</b> | 249 | 195 | 452             | 372             | 536,5           | 118 | 118 | 115,5 | 38 k6 | 80  | 4   | M12x28  | 10  | 41   | 10 | 8  |
| <b>132L</b> | 249 | 195 | 490             | 410             | 574,5           | 118 | 118 | 115,5 | 38 k6 | 80  | 4   | M12x28  | 10  | 41   | 10 | 8  |
| <b>160S</b> | 249 | 195 | 520             | 410             | /               | 118 | 118 | 115,5 | 42k6  | 100 | /   | M16x36  | 10  | 45   | 12 | 8  |

\*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

| B5         | M   | N   | P   | LA   | S    | T   |
|------------|-----|-----|-----|------|------|-----|
| <b>63</b>  | 115 | 95  | 140 | 10   | 9    | 3   |
| <b>71</b>  | 130 | 110 | 160 | 10   | 9,5  | 3,5 |
| <b>80</b>  | 165 | 130 | 200 | 12   | 11   | 3,5 |
| <b>90</b>  | 165 | 130 | 200 | 12   | 11   | 3,5 |
| <b>100</b> | 215 | 180 | 250 | 15   | 14   | 4   |
| <b>112</b> | 215 | 180 | 250 | 14,5 | 14   | 4   |
| <b>132</b> | 265 | 230 | 300 | 20   | 14   | 3,5 |
| <b>160</b> | 300 | 250 | 350 | 13   | 18,5 | 3,5 |

| B14        | M   | N   | P   | LA   | S   | T   |
|------------|-----|-----|-----|------|-----|-----|
| <b>63</b>  | 75  | 60  | 90  | 10   | M5  | 2,5 |
| <b>71</b>  | 85  | 70  | 105 | 10,5 | M6  | 2,5 |
| <b>80</b>  | 100 | 80  | 120 | 10,5 | M6  | 3   |
| <b>90</b>  | 115 | 95  | 140 | 11,5 | M8  | 3   |
| <b>100</b> | 130 | 110 | 160 | 15   | M8  | 3,5 |
| <b>112</b> | 130 | 110 | 160 | 11,5 | M8  | 3,5 |
| <b>132</b> | 165 | 130 | 200 | 20,5 | M10 | 3,5 |
| <b>160</b> | 215 | 180 | 250 | -    | M12 | 4   |

# 3.2 ELECTRIC MOTORS



|             |       | AC  | AD  | L    | LB  | X   | D  | E   | f   | GA   | F  | GD | LL  | Pg        |           |
|-------------|-------|-----|-----|------|-----|-----|----|-----|-----|------|----|----|-----|-----------|-----------|
| <b>160M</b> | 2-4-6 | 314 | 251 | 600  | 490 | 158 | 42 | 110 | M16 | 45   | 12 | 8  | 90  | 2-M40x1,5 | 1-M16x1,5 |
| <b>160L</b> | 2-4-6 | 314 | 251 | 645  | 535 | 158 | 42 | 110 | M16 | 45   | 12 | 8  | 90  | 2-M40x1,5 | 1-M16x1,5 |
| <b>180M</b> | 2-4   | 355 | 267 | 680  | 570 | 158 | 48 | 110 | M16 | 51,5 | 14 | 9  | 100 | 2-M40x1,5 | 1-M16x1,5 |
| <b>180L</b> | 4-6   | 355 | 267 | 720  | 610 | 158 | 48 | 110 | M16 | 51,5 | 14 | 9  | 100 | 2-M40x1,5 | 1-M16x1,5 |
| <b>200L</b> | 2-4-6 | 397 | 300 | 785  | 675 | 187 | 55 | 110 | M20 | 59   | 16 | 10 | 100 | 2-M50x1,5 | 1-M16x1,5 |
| <b>225S</b> | 4     | 446 | 325 | 820  | 680 | 187 | 60 | 140 | M20 | 64   | 18 | 11 | 125 | 2-M50x1,5 | 1-M16x1,5 |
| <b>225M</b> | 2     | 446 | 325 | 815  | 705 | 187 | 55 | 110 | M20 | 59   | 16 | 10 | 100 | 2-M50x1,5 | 1-M16x1,5 |
| <b>225M</b> | 4-6   | 446 | 325 | 845  | 705 | 187 | 60 | 140 | M20 | 64   | 18 | 11 | 125 | 2-M50x1,5 | 1-M16x1,5 |
| <b>250M</b> | 2-4-6 | 485 | 360 | 910  | 770 | 238 | 60 | 140 | M20 | 64   | 18 | 11 | 125 | 2-M63x1,5 | 1-M16x1,5 |
| <b>250M</b> | 2-4-6 | 485 | 360 | 910  | 770 | 238 | 65 | 140 | M20 | 69   | 18 | 11 | 125 | 2-M63x1,5 | 1-M16x1,5 |
| <b>280S</b> | 2-4-6 | 547 | 390 | 970  | 830 | 238 | 65 | 140 | M20 | 69   | 18 | 11 | 125 | 2-M63x1,5 | 1-M16x1,5 |
| <b>280S</b> | 2-4-6 | 547 | 390 | 970  | 830 | 238 | 75 | 140 | M20 | 79,5 | 20 | 12 | 125 | 2-M63x1,5 | 1-M16x1,5 |
| <b>280M</b> | 2-4-6 | 547 | 390 | 1025 | 885 | 238 | 65 | 140 | M20 | 69   | 18 | 11 | 125 | 2-M63x1,5 | 1-M16x1,5 |
| <b>280M</b> | 2-4-6 | 547 | 390 | 1025 | 885 | 238 | 75 | 140 | M20 | 79,5 | 20 | 12 | 125 | 2-M63x1,5 | 1-M16x1,5 |

| B5         | M   | N   | P   | LA | S  | T |
|------------|-----|-----|-----|----|----|---|
| <b>160</b> | 300 | 250 | 350 | 13 | 19 | 5 |
| <b>180</b> | 300 | 250 | 350 | 15 | 19 | 5 |
| <b>200</b> | 350 | 300 | 400 | 17 | 19 | 5 |
| <b>225</b> | 400 | 350 | 450 | 20 | 19 | 5 |
| <b>250</b> | 500 | 450 | 550 | 22 | 19 | 5 |
| <b>280</b> | 500 | 450 | 550 | 22 | 19 | 5 |

### 3.2.2 Standard high efficiency (TS), high (TH) and premium (TP) motors

Motovario, three-phase, single polarity motors are available in three different versions (IE1-IE2-IE3) in compliance with standard 60034-30-1 (see table). The efficiency value is calculated according to the method set forth in standard IEC 60034-2-1.

1. IE1: Standard efficiency TS series.
2. IE2: High efficiency TH series
3. IE3: Premium efficiency TP series.

Table of Motovario commercial availability

| NOMINAL POWER [kW]       | POLES     | EFFICIENCY LEVEL |        |        |
|--------------------------|-----------|------------------|--------|--------|
|                          |           | IE1              | IE2    | IE3    |
| $0,09 \leq P_n < 0,75$   | 2 - 4 - 6 | TS-TBS           | -      | -      |
| $0,75 \leq P_n \leq 11$  | 2 - 4     | TBS              | -      | -      |
| $0,75 \leq P_n \leq 5,5$ | 6         | TBS              | TH-TBH | TP-TBP |
| $0,75 \leq P_n \leq 9,2$ | 2 - 4     | -                | TH-TBH | -      |
| $0,75 \leq P_n \leq 7,5$ | 2 - 4     | -                | -      | TP-TBP |
| $7,5 \leq P_n \leq 22$   | 6         | TBS (*)          | -      | TP     |
| $11 \leq P_n \leq 90$    | 4         | -                | -      | TP     |
| $15 \leq P_n \leq 37$    | 2         | TBS (*)          | -      | TP     |
| $15 \leq P_n \leq 55$    | 4         | TBS (*)          | -      | -      |

(\*) Series available on request.



## 3.2.3 Nominal power - [kW]

|       | 63A  | 63B  | 63C  | 71A  | 71B  | 71C  | 80A  |      |      | 80B  |      |      |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Poles | TS   | TS   | TS   | TS   | TS   | TS   | TS   | TH   | TP   | TS   | TH   | TP   |
| 2     | 0,18 | 0,25 | 0,37 | 0,37 | 0,55 | -    | -    | 0,75 | 0,75 | -    | 1,1  | 1,1  |
| 4     | 0,12 | 0,18 | 0,22 | 0,25 | 0,37 | 0,55 | 0,55 | -    | -    | -    | 0,75 | 0,75 |
| 6     | 0,09 | 0,12 | 0,15 | 0,18 | 0,25 | 0,37 | 0,37 | -    | -    | 0,55 | -    | -    |

|       | 90S |      | 90L  |     | 100LR | 100L | 100LA |     | 112MR | 112MS | 112MA | 112M |
|-------|-----|------|------|-----|-------|------|-------|-----|-------|-------|-------|------|
| Poles | TH  | TP   | TH   | TP  | TP    | TP   | TH    | TP  | TP    | TP    | TH    | TP   |
| 2     | 1,5 | 1,5  | 2,2  | 2,2 | -     | 3    | 3     | -   | -     | -     | 4     | 4    |
| 4     | 1,1 | 1,1  | 1,5  | 1,5 | -     | -    | 2,2   | 2,2 | 2,2   | 3     | 4     | 4    |
| 6     | -   | 0,75 | 0,75 | -   | 1,1   | 1,5  | 1,1   | -   | -     | -     | 2,2   | 2,2  |

|       | 112MR | 112MS | 132S | 132SA | 132MS | 132SB | 132M | 132MA |    | 132MB |     |
|-------|-------|-------|------|-------|-------|-------|------|-------|----|-------|-----|
| Poles | TP    | TP    | TP   | TH    | TP    | TH    | TP   | TH    | TP | TH    | TP  |
| 2     | -     | -     | 5,5  | 5,5   | -     | 7,5   | 7,5  | 9,2   | -  | -     | -   |
| 4     | 2,2   | 3     | -    | 5,5   | 5,5   | -     | 7,5  | 7,5   | -  | 9,2   | -   |
| 6     | -     | -     | 3    | 3     | -     | -     | -    | 4     | 4  | 5,5   | 5,5 |

|       | 160M | 160MA | 160MB | 160L | 160LA | 180M | 180L |
|-------|------|-------|-------|------|-------|------|------|
| Poles | TP   | TP    | TP    | TP   | TP    | TP   | TP   |
| 2     | -    | 11    | 15    | 18,5 | -     | 22   | -    |
| 4     | -    | 11    | -     | -    | 15    | 18,5 | 22   |
| 6     | 7,5  | -     | -     | 11   | -     | -    | 15   |

|       | 200L | 200LA | 200LB | 225S | 225M | 250M | 280S | 280M |
|-------|------|-------|-------|------|------|------|------|------|
| Poles | TP   | TP    | TP    | TP   | TP   | TP   | TP   | TP   |
| 2     | -    | 30    | 37    | -    | -    | -    | -    | -    |
| 4     | 30   | -     | -     | 37   | 45   | 55   | 75   | 90   |
| 6     | -    | 18,5  | 22    | -    | -    | -    | -    | -    |

### 3.3 WEIGHTS

The values reported in the tables are referred to the weight of the gearbox with lubricant included.

\*Weight without motor

| * B-PB | 063  | 071  | 080-090 | 100-112 | 132  | 160-180 | 200   | 225   | 250   | 280   |      | IB  | - kg  |
|--------|------|------|---------|---------|------|---------|-------|-------|-------|-------|------|-----|-------|
| A42    | 4,8  | 4,9  | 5,1     | /       | /    | /       | /     | /     | /     | /     | ~ kg | A42 | 4,8   |
| A52    | 5,4  | 5,5  | 5,7     | /       | /    | /       | /     | /     | /     | /     |      | A52 | 5,4   |
| A53    | 7,0  | 7,1  | 8,5     | /       | /    | /       | /     | /     | /     | /     |      | A53 | 8,2   |
| A72    | /    | /    | 15,3    | 15,5    | /    | /       | /     | /     | /     | /     |      | A72 | 15,4  |
| A73    | 14,2 | 14,3 | 15,7    | /       | /    | /       | /     | /     | /     | /     |      | A73 | 15,4  |
| O63    | 20,6 | 21   | 21,6    | 25,9    | /    | /       | /     | /     | /     | /     |      | O63 | 23,7  |
| O83    | /    | /    | 29,3    | 31,3    | 33,8 | /       | /     | /     | /     | /     |      | O83 | 33,1  |
| 103    | /    | /    | 54,8    | 56,8    | 59,5 | 66,2    | /     | /     | /     | /     |      | 103 | 58,8  |
| 123    | /    | /    | 76,6    | 79      | 81,7 | 87,7    | /     | /     | /     | /     |      | 123 | 86,5  |
| 143    | /    | /    | /       | 124     | 127  | 133     | 148   | /     | /     | /     |      | 143 | 132   |
| 153    | /    | /    | /       | /       | 199  | 206,5   | 221   | 223   | /     | /     |      | 153 | 213   |
| 163    | /    | /    | /       | /       | /    | 385,3   | 449,8 | 457,1 | 473,5 | 473,5 |      | 163 | 455,6 |

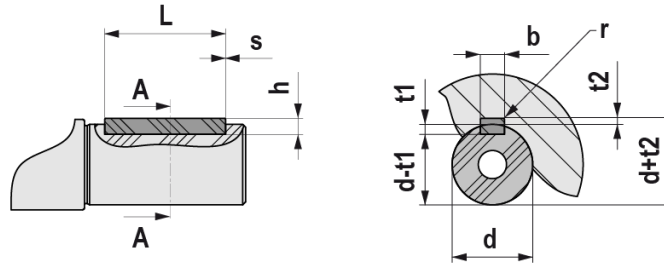
| CB  | TS   |      |      |      |      |      |       |       |       | ~ kg |
|-----|------|------|------|------|------|------|-------|-------|-------|------|
|     | 063  | 071  | 080  | 090S | 090L | 100  | 112   | 132S  | 132M  |      |
| A42 | 7,4  | 9,3  | 13,3 | /    | /    | /    | /     | /     | /     | ~ kg |
| A52 | 8,2  | 10,2 | 14,2 | 16,1 | 18,6 | /    | /     | /     | /     |      |
| A53 | 9,7  | 11,7 | 15,7 | 17,6 | 20,1 | /    | /     | /     | /     |      |
| A72 | /    | /    | 21,6 | 23,6 | 26,1 | 34,6 | 41,6  | /     | /     |      |
| A73 | 16,9 | 18,9 | 22,9 | 24,9 | 27,4 | /    | /     | /     | /     |      |
| O63 | 24,1 | 25   | 29,7 | 33,6 | 35,6 | 41,1 | 52,6  | /     | /     |      |
| O83 | /    | /    | 35,7 | 38,1 | 39,6 | 44,7 | 56,1  | 70,1  | 81,7  |      |
| 103 | /    | /    | 61,4 | 63,8 | 65,3 | 70,4 | 81,8  | 95,8  | 107,4 |      |
| 123 | /    | /    | /    | 85,7 | 86,7 | 92,7 | 102,7 | 117,7 | 126,7 |      |
| 143 | /    | /    | /    | /    | /    | 138  | 148   | 163   | 172   |      |

| CB  | TH   |      |      |       |       |       |       | ~ kg |
|-----|------|------|------|-------|-------|-------|-------|------|
|     | 080  | 090S | 090L | 100   | 112   | 132S  | 132M  |      |
| A42 | 15,0 | /    | /    | /     | /     | /     | /     | ~ kg |
| A52 | 15,9 | 18,4 | 20,6 | /     | /     | /     | /     |      |
| A53 | 17,4 | 19,9 | 22,1 | /     | /     | /     | /     |      |
| A72 | 23,3 | 25,9 | 28,1 | 36,9  | 44,7  | /     | /     |      |
| A73 | 24,6 | 27,2 | 29,4 | /     | /     | /     | /     |      |
| O63 | 31,4 | 35,9 | 37,6 | 43,4  | 55,7  | /     | /     |      |
| O83 | 37,4 | 40,4 | 41,6 | 47,0  | 59,2  | 75,4  | 88,5  |      |
| 103 | 63,1 | 66,1 | 67,3 | 72,7  | 84,9  | 101,1 | 114,2 |      |
| 123 | /    | 88,0 | 88,7 | 95,0  | 105,8 | 123,0 | 133,5 |      |
| 143 | /    | /    | /    | 140,3 | 151,1 | 168,3 | 178,8 |      |

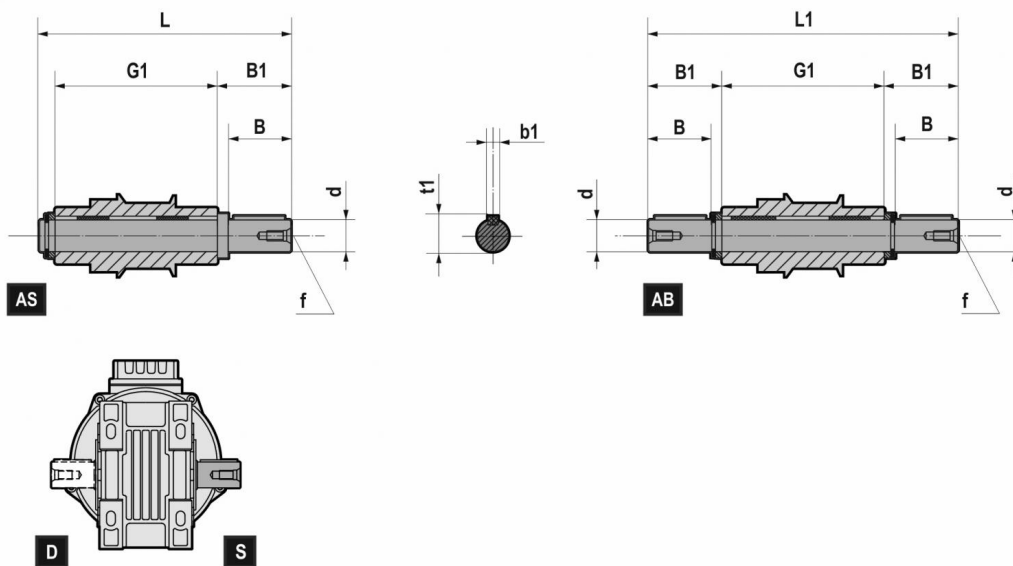
| CB  | TBS  |      |      |      |      |       |       |       |       | ~ kg |
|-----|------|------|------|------|------|-------|-------|-------|-------|------|
|     | 063  | 071  | 080  | 090S | 090L | 100   | 112   | 132S  | 132M  |      |
| A42 | 8,8  | 11,3 | 16,4 | /    | /    | /     | /     | /     | /     | ~ kg |
| A52 | 9,6  | 12,1 | 17,3 | 20,9 | 13,5 | /     | /     | /     | /     |      |
| A53 | 11,1 | 13,6 | 18,8 | 22,4 | 25   | /     | /     | /     | /     |      |
| A72 | /    | /    | 25,6 | 27,1 | 31,6 | 41,6  | 51,6  | /     | /     |      |
| A73 | 18,4 | 20,9 | 26,9 | 28,9 | 32,9 | /     | /     | /     | /     |      |
| O63 | 25,6 | 27,2 | 33,2 | 39,1 | 41,1 | 46,6  | 62,3  | /     | /     |      |
| O83 | /    | /    | 39,2 | 43,6 | 45,1 | 50,2  | 65,8  | 80,3  | 96,3  |      |
| 103 | /    | /    | 64,8 | 69,3 | 70,8 | 75,8  | 91,5  | 106,1 | 122,1 |      |
| 123 | /    | /    | /    | 91,2 | 92,2 | 98,2  | 112,4 | 128   | 141,4 |      |
| 143 | /    | /    | /    | /    | /    | 143,5 | 158   | 173   | 187   |      |

| CB  | TBH  |      |      |       |       |       |       | ~ kg |
|-----|------|------|------|-------|-------|-------|-------|------|
|     | 080  | 090S | 090L | 100   | 112   | 132S  | 132M  |      |
| A42 | 18,1 | /    | /    | /     | /     | /     | /     | ~ kg |
| A52 | 19,0 | 23,2 | 15,5 | /     | /     | /     | /     |      |
| A53 | 20,5 | 24,7 | 27,0 | /     | /     | /     | /     |      |
| A72 | 27,3 | 29,4 | 33,6 | 45,3  | 54,7  | /     | /     |      |
| A73 | 28,6 | 31,2 | 34,9 | /     | /     | /     | /     |      |
| O63 | 34,9 | 41,4 | 43,1 | 50,3  | 65,4  | /     | /     |      |
| O83 | 40,9 | 45,9 | 47,1 | 53,9  | 68,9  | 85,6  | 102,8 |      |
| 103 | 66,5 | 71,6 | 72,8 | 79,5  | 94,6  | 111,4 | 128,6 |      |
| 123 | /    | 93,5 | 94,2 | 101,9 | 115,5 | 133,3 | 147,9 |      |
| 143 | /    | /    | /    | 147,2 | 161,1 | 178,3 | 193,5 |      |

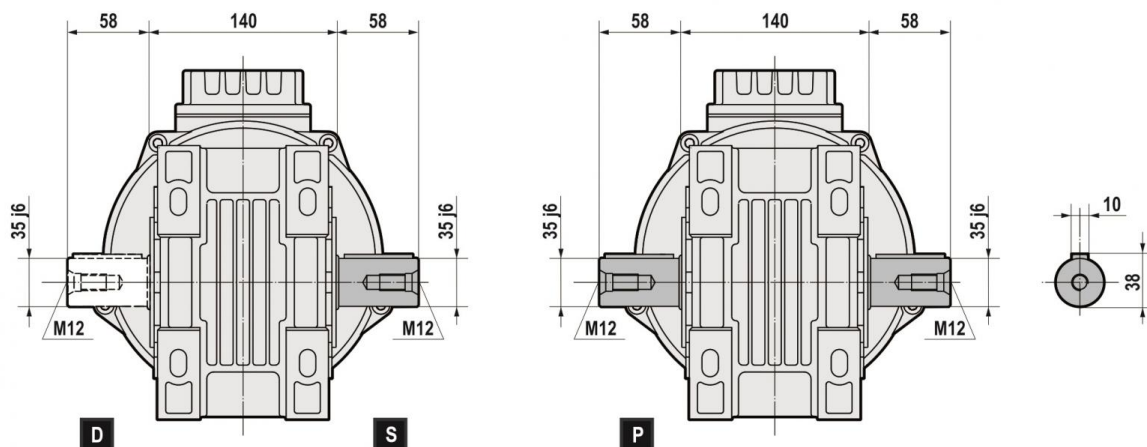
### 3.4 SHAFT END



| UNI 6604 - DIN 6885 |     |       |    |   |          |         |     |                              |              |     |      |             |          |              |
|---------------------|-----|-------|----|---|----------|---------|-----|------------------------------|--------------|-----|------|-------------|----------|--------------|
| d                   |     | b x h |    |   | Tol. b/h | L       |     | $\frac{s}{\text{min / max}}$ | b            | t1  | t2   | Tol. t1/t2  | r max    |              |
|                     | 6   | 8     | 2  | x | 2        | h9 / h9 | 6   | 20                           | 0,16<br>0,25 | 2   | 1,2  | 1           | 0,1<br>0 | 0,08<br>0,16 |
| >                   | 8   | 10    | 3  | x | 3        |         | 6   | 36                           |              | 3   | 1,8  | 1,4         |          |              |
| >                   | 10  | 12    | 4  | x | 4        |         | 8   | 45                           |              | 4   | 2,5  | 1,8         |          |              |
| >                   | 12  | 17    | 5  | x | 5        |         | 10  | 56                           | 0,25<br>0,4  | 5   | 3    | 2,3         |          | 0,16<br>0,25 |
| >                   | 17  | 22    | 6  | x | 6        |         | 14  | 70                           |              | 6   | 3    | 2,8         |          |              |
| >                   | 22  | 30    | 8  | x | 7        |         | 18  | 90                           |              | 8   | 4    | 3,3         |          |              |
| >                   | 30  | 38    | 10 | x | 8        | 22      | 110 | 0,4<br>0,6                   | 10           | 5   | 3,3  | 0,25<br>0,4 |          |              |
| >                   | 38  | 44    | 12 | x | 8        | 28      | 140 |                              | 12           | 5   | 3,3  |             |          |              |
| >                   | 44  | 50    | 14 | x | 9        | 36      | 160 |                              | 14           | 5,5 | 3,8  |             |          |              |
| >                   | 50  | 58    | 16 | x | 10       | 45      | 180 |                              | 16           | 6   | 4,3  |             |          |              |
| >                   | 58  | 65    | 18 | x | 11       | 50      | 200 |                              | 18           | 7   | 4,4  |             |          |              |
| >                   | 65  | 75    | 20 | x | 12       | 56      | 110 |                              | 20           | 7,5 | 4,9  |             |          |              |
| >                   | 75  | 85    | 22 | x | 14       | 63      | 140 | 0,6<br>0,8                   | 22           | 9   | 5,4  | 0,25<br>0,4 |          |              |
| >                   | 85  | 95    | 25 | x | 14       | 70      | 160 |                              | 25           | 9   | 5,4  |             |          |              |
| >                   | 95  | 110   | 28 | x | 16       | 80      | 180 |                              | 28           | 10  | 6,4  |             |          |              |
| >                   | 110 | 130   | 32 | x | 18       | 90      | 200 |                              | 32           | 11  | 7,4  |             |          |              |
| >                   | 130 | 150   | 36 | x | 20       | 100     | 160 |                              | 36           | 12  | 8,4  |             |          |              |
| >                   | 150 | 170   | 40 | x | 22       | 110     | 180 |                              | 1<br>1,2     | 40  | 13   |             | 9,4      | 0,7<br>1     |
| >                   | 170 | 200   | 45 | x | 25       | 125     | 200 | 45                           |              | 14  | 10,4 |             |          |              |

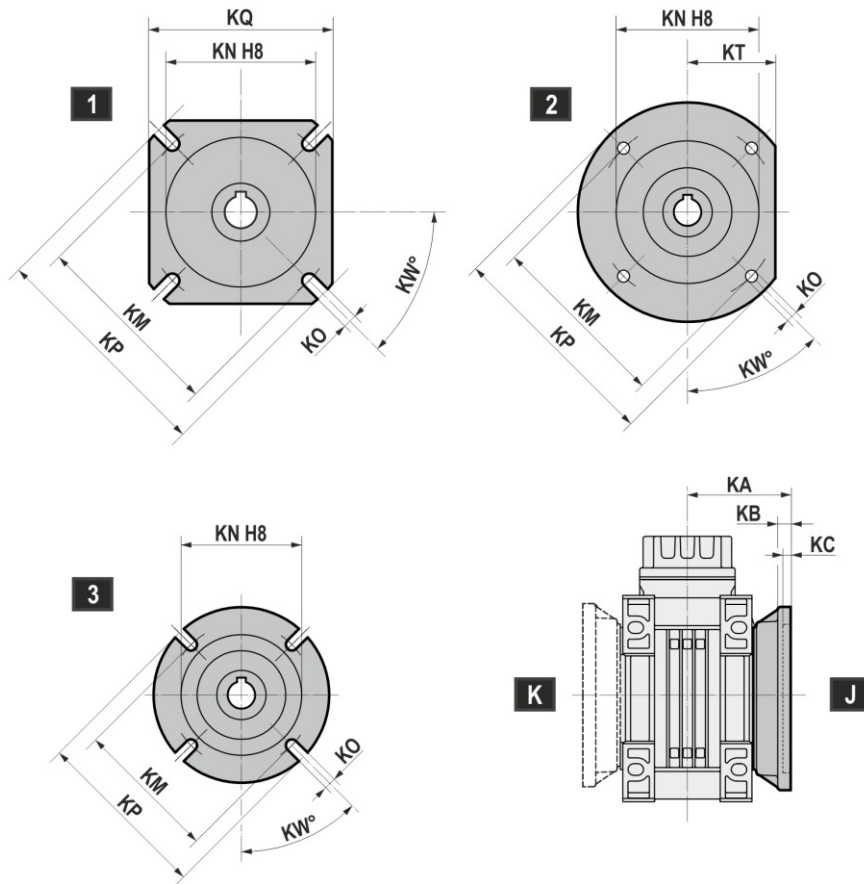


BA70 solid shaft



|           | d h6 | B   | B1    | G1  | L     | L1    | f   | b1 | t1   |
|-----------|------|-----|-------|-----|-------|-------|-----|----|------|
| BA42      | 20   | 40  | 43,5  | 100 | 151   | 187   | M6  | 6  | 22,5 |
| BA52-BA53 | 25   | 50  | 53,5  | 112 | 173   | 219   | M10 | 8  | 28   |
| B063      | 35   | 58  | 62    | 140 | 210,5 | 264   | M12 | 10 | 38   |
| B083      | 40   | 80  | 84,25 | 180 | 273   | 348,5 | M16 | 12 | 43   |
| B103      | 50   | 100 | 105   | 210 | 325   | 420   | M16 | 14 | 53,5 |
| B123      | 60   | 120 | 125   | 240 | 375   | 490   | M20 | 18 | 64   |
| B143      | 70   | 140 | 146   | 300 | 458   | 592   | M20 | 20 | 74,5 |
| B153      | 90   | 170 | 176,5 | 350 | 540   | 703   | M20 | 25 | 95   |
| B163      | 100  | 210 | 217,5 | 445 | 677   | 880   | M20 | 28 | 106  |

4.2.1 BA



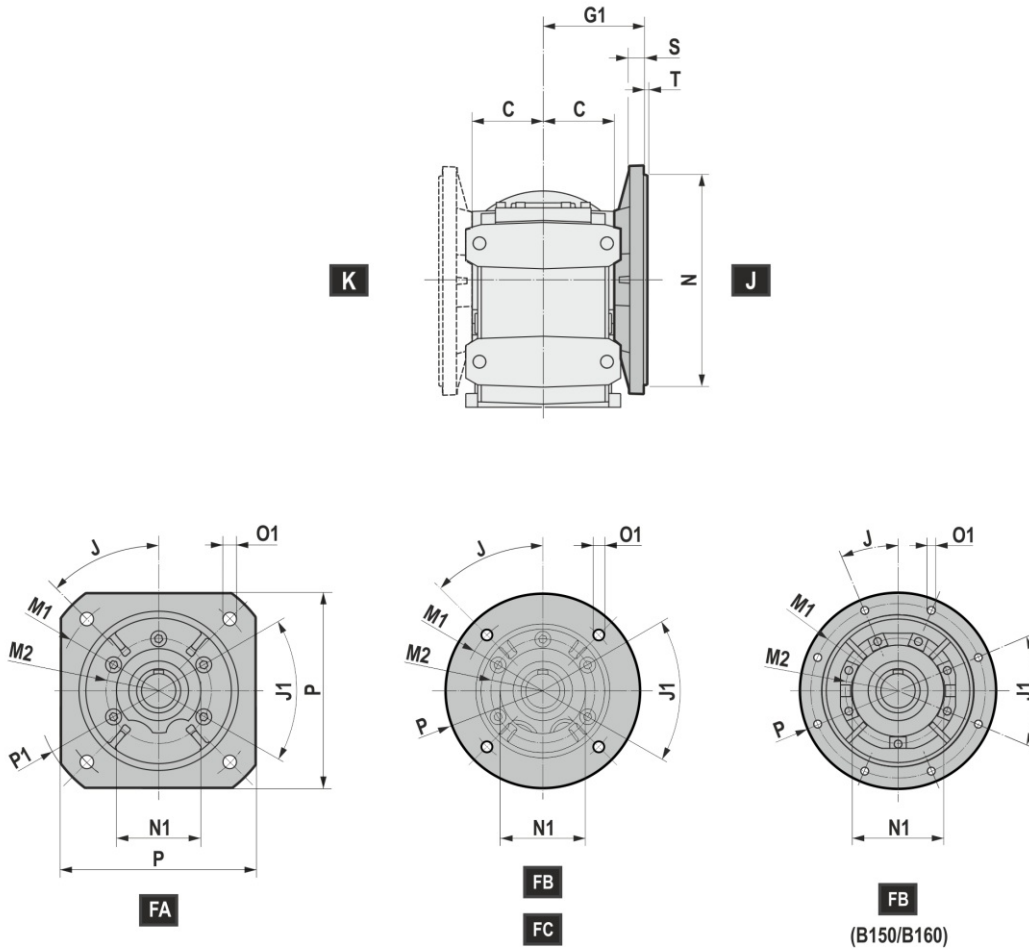
|    | A42 | A52-A53 | A72-A73 |
|----|-----|---------|---------|
| FA | 1   | 1       | 1       |
| FB | 1   | 1       | 3       |
| FC | 2   | 2       | -       |
| FD | 2   | 2       | -       |

| B.-CB..      | KA | KB    | KC   | KN | KM  | KO     | KP        | KQ  | KT  | KW |     |
|--------------|----|-------|------|----|-----|--------|-----------|-----|-----|----|-----|
| BA42         | FA | 92,5  | 9    | 5  | 70  | 90 min | 11 (n°4)  | 125 | 110 | -  | 45° |
|              | FB | 122,5 | 9    | 5  | 70  | 90 min | 11 (n°4)  | 125 | 110 | -  | 45° |
|              | FC | 91,5  | 10   | 5  | 110 | 130    | 9.5 (n°4) | 160 | -   | 66 | 45° |
|              | FD | 74,5  | 14,5 | 5  | 95  | 115    | 11 (n°4)  | 140 | -   | 60 | 45° |
| BA52<br>BA53 | FA | 80    | 10   | 6  | 115 | 150    | 11 (n°4)  | 180 | 142 | -  | 45° |
|              | FB | 110   | 10   | 6  | 115 | 150    | 11 (n°4)  | 180 | 142 | -  | 45° |
|              | FC | 96    | 10   | 5  | 130 | 165    | 11 (n°4)  | 200 | -   | 80 | 45° |
|              | FD | 105   | 10   | 5  | 130 | 165    | 11 (n°4)  | 200 | -   | -  | 45° |
| BA72<br>BA73 | FA | 119   | 13   | 6  | 130 | 165    | 14 (n°4)  | 200 | 170 | -  | 45° |
|              | FB | 98    | 13   | 6  | 110 | 130    | 11 (n°4)  | 160 | -   | -  | 45° |

Unless specified otherwise, the reduction unit is supplied with the accessories in pos. J referred to position B3/B5.

## 4.2 OUTPUT FLANGE

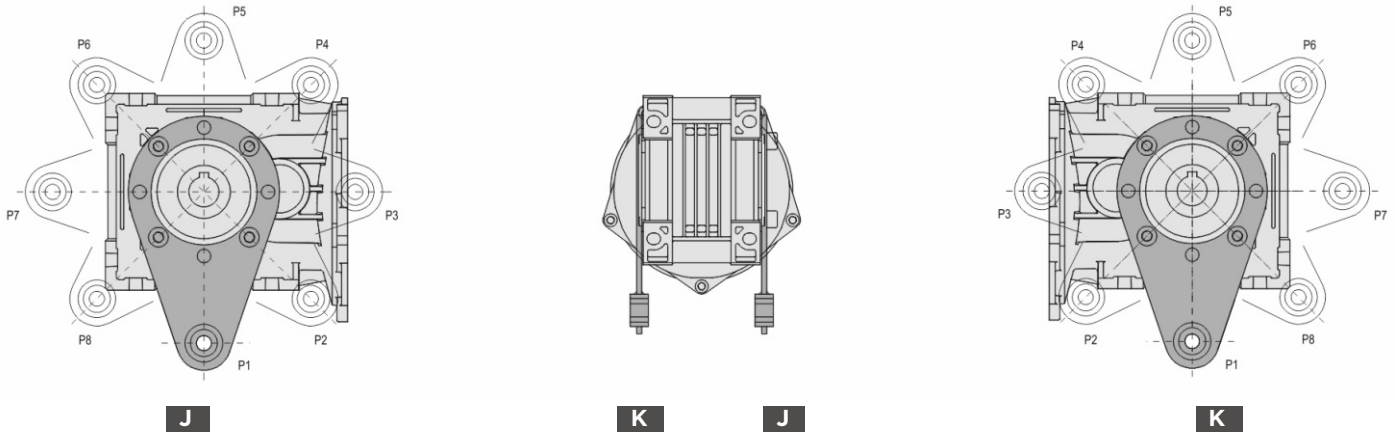
### 4.2.2 B



| B..S - B..U | J  | J1     | M1  | M2  | N f8 | N1  | O1  | P        | P1  | S   | T  | C   | G1    |       |
|-------------|----|--------|-----|-----|------|-----|-----|----------|-----|-----|----|-----|-------|-------|
| B063        | FA | 45°    | 45° | 265 | 130  | 230 | 110 | 14 (n.4) | 250 | 300 | 15 | 4   | 61,5  | 93,5  |
|             | FB | 45°    | 45° | 215 | 130  | 180 | 110 | 14 (n.4) | 250 | /   | 15 | 4   |       |       |
|             | FC | 45°    | 45° | 165 | 130  | 130 | 110 | 11 (n.4) | 200 | /   | 15 | 3,5 |       |       |
| B083        | FA | 45°    | 45° | 265 | 130  | 230 | 110 | 14 (n.4) | 250 | 300 | 15 | 4   | 78    | 110   |
|             | FB | 45°    | 45° | 215 | 130  | 180 | 110 | 14 (n.4) | 250 | /   | 15 | 4   |       |       |
|             | FC | 45°    | 45° | 165 | 130  | 130 | 110 | 11 (n.4) | 200 | /   | 15 | 3,5 |       |       |
| B103        | FA | 45°    | 45° | 300 | 165  | 250 | 130 | 18 (n.4) | 300 | 350 | 16 | 5   | 95    | 135   |
|             | FB | 45°    | 45° | 265 | 165  | 230 | 130 | 14 (n.4) | 300 | /   | 16 | 4   |       |       |
|             | FC | 45°    | 45° | 215 | 165  | 180 | 130 | 14 (n.4) | 250 | /   | 16 | 4   |       |       |
| B123        | FA | 45°    | 45° | 350 | 185  | 300 | 150 | 18 (n.4) | 350 | 400 | 18 | 5   | 107,5 | 150   |
|             | FB | 45°    | 45° | 300 | 185  | 250 | 150 | 18 (n.4) | 350 | /   | 18 | 5   |       |       |
|             | FC | 45°    | 45° | 265 | 185  | 230 | 150 | 14 (n.4) | 300 | /   | 18 | 4   |       |       |
| B143        | FB | 45°    | 45° | 350 | 200  | 300 | 170 | 18 (n.4) | 400 | /   | 18 | 5   | 138   | 187,5 |
| B153        | FB | 22°30' | 45° | 400 | 245  | 350 | 210 | 18 (n.8) | 450 | /   | 25 | 5   | 162,5 | 207,5 |
|             | FC | 45°    | 45° | 350 | 245  | 300 | 210 | 18 (n.4) | 400 | /   | 25 | 5   |       |       |
| B163        | FB | 22°30' | 45° | 500 | 298  | 450 | 255 | 18 (n.8) | 550 | /   | 28 | 5   | 202,5 | 256   |

Unless specified otherwise, the reduction unit is supplied with the accessories in pos. J referred to position B3/B5.

## 4.3.1 Torque arm: BA Mounting position

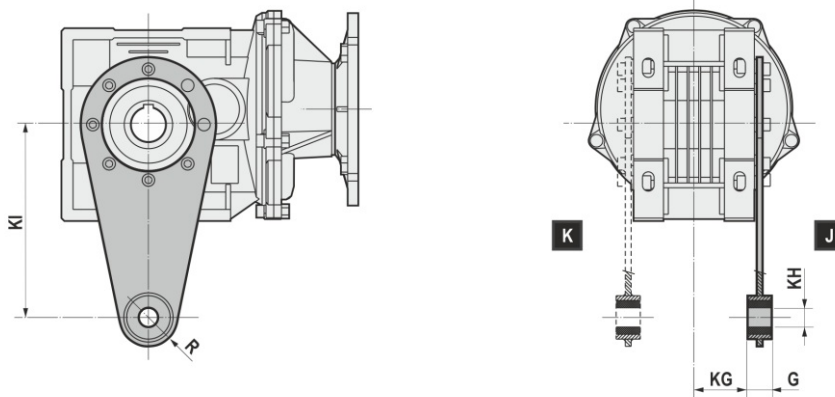


|                 | P1 |   | P2 |   | P3 |   | P4 |   | P5 |   | P6 |   | P7 |   | P8 |   |
|-----------------|----|---|----|---|----|---|----|---|----|---|----|---|----|---|----|---|
|                 | J  | K | J  | K | J  | K | J  | K | J  | K | J  | K | J  | K | J  | K |
| <b>BA42</b>     |    | * | /  | / | /  | / | /  | / |    |   | /  | / |    |   | /  | / |
| <b>BA52/A53</b> |    |   | /  | / | /  | / | /  | / |    |   |    |   |    |   |    |   |
| <b>BA72/A73</b> |    |   | /  | / | /  | / | /  | / |    |   |    |   |    |   |    |   |

(\*) Not available with Shrink disc

(/) Not available

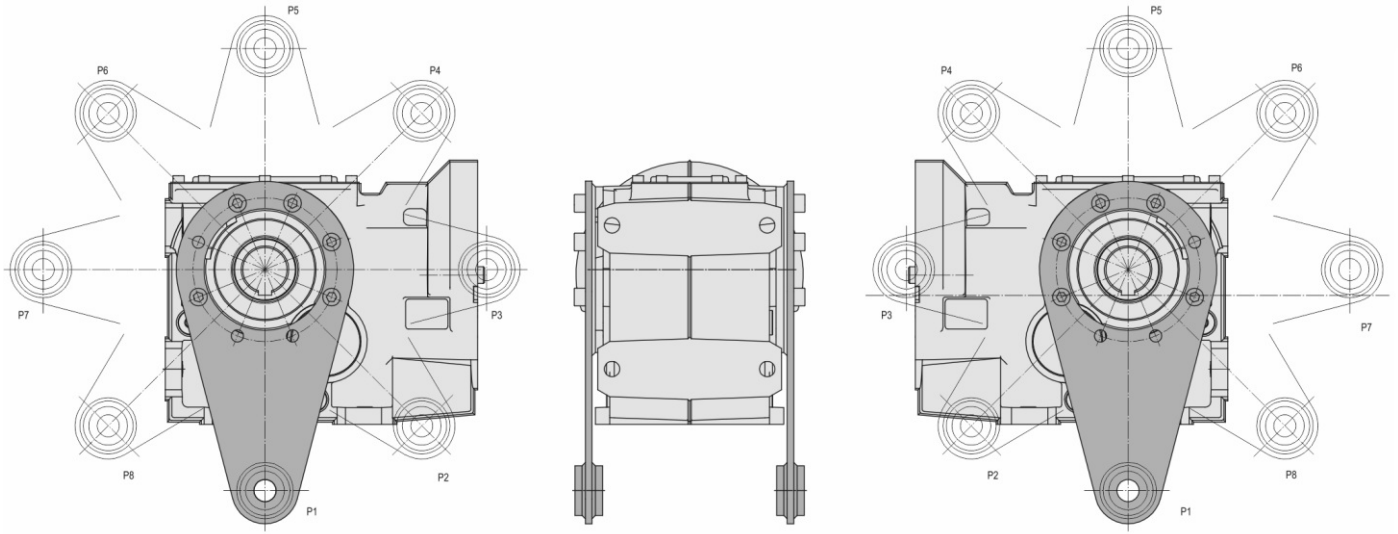
## 4.3.2 Torque arm: BA Dimensions



|                  | KI  | KG   | KH +0,3/0 | G  | R  |
|------------------|-----|------|-----------|----|----|
| <b>BA42</b>      | 100 | 41   | 10        | 14 | 18 |
| <b>BA52/BA53</b> | 150 | 47   | 10        | 14 | 18 |
| <b>BA72/BA73</b> | 200 | 55,5 | 20        | 25 | 30 |

Unless specified otherwise, the reduction unit is supplied with the accessories in pos. J referred to position B3/B5.

## 4.3.3 Torque arm: B Mounting position



**J**

**K**

**J**

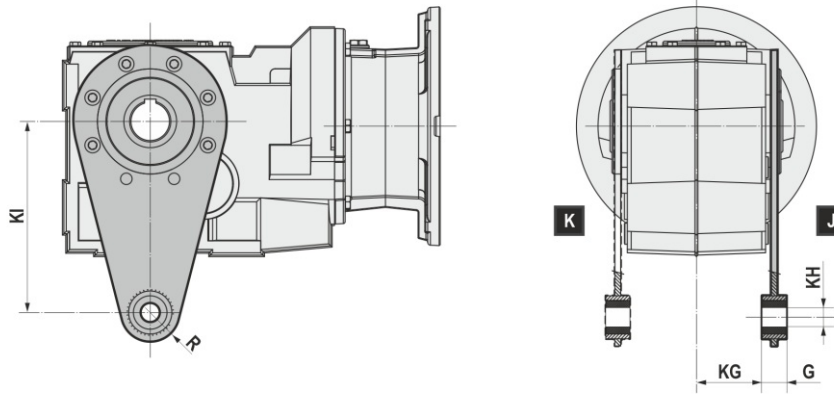
**K**

|             | P1 |   | P2 |   | P3 |   | P4 |   | P5 |   | P6 |   | P7 |   | P8 |   |  |
|-------------|----|---|----|---|----|---|----|---|----|---|----|---|----|---|----|---|--|
|             | J  | K | J  | K | J  | K | J  | K | J  | K | J  | K | J  | K | J  | K |  |
| <b>B063</b> |    |   |    |   | /  | / |    |   |    |   |    |   |    |   |    |   |  |
| <b>B083</b> |    |   | /  | / | /  | / |    |   |    |   |    |   |    |   |    |   |  |
| <b>B103</b> |    |   | /  | / | /  | / |    |   |    |   |    |   |    |   |    |   |  |
| <b>B123</b> |    |   | /  | / | /  | / |    |   |    |   |    |   |    |   |    |   |  |

(/) Not available



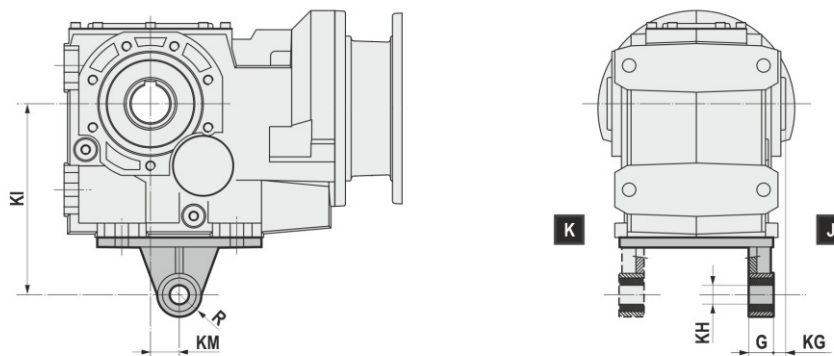
## 4.3.4 Torque arm: B063-083-103-123 Dimensions



|       | KI  | KG    | KH +0,2/0 | G  | R  |
|-------|-----|-------|-----------|----|----|
| B063S | 200 | 62    | 20        | 25 | 30 |
| B083S | 200 | 68,5  | 20        | 25 | 30 |
| B103S | 250 | 83    | 25        | 30 | 35 |
| B123S | 300 | 91,5  | 25        | 40 | 40 |
| B063U | 200 | 62    | 20        | 25 | 30 |
| B083U | 200 | 78,5  | 20        | 25 | 30 |
| B103U | 250 | 95    | 25        | 30 | 35 |
| B123U | 300 | 103,5 | 25        | 40 | 40 |

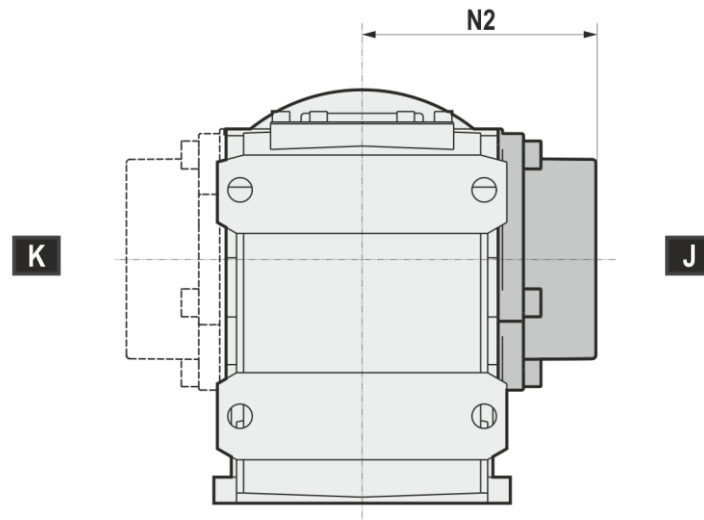
Unless specified otherwise, the reduction unit is supplied with the accessories in pos. J referred to position B3/B5.

## 4.3.5 Torque arm: B143-153-163 Dimensions



|      | KM | KI  | KG  | KH +0,2/0 | G   | R  |
|------|----|-----|-----|-----------|-----|----|
| B143 | 45 | 350 | 40  | 30        | 60  | 45 |
| B153 | 45 | 450 | 45  | 30        | 60  | 45 |
| B163 | 60 | 550 | 7,5 | 40        | 110 | 65 |

Unless specified otherwise, the reduction unit is supplied with the accessories in pos. J referred to position B3/B5.



|      | N2    |
|------|-------|
| B063 | 117,5 |
| B083 | 134   |
| B103 | 150   |
| B123 | 174   |
| B143 | 217   |
| B153 | 256,5 |
| B163 | 301,5 |

Version FL, FM, SL, SM, UL, UM supplied not assembled.

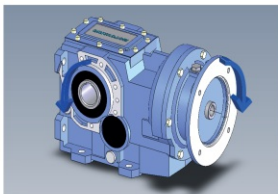
Accessory not certified ATEX.

# 4.5 BACKSTOP DEVICE

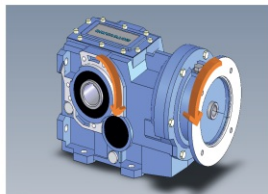
The gear reducer can be supplied with backstop device on input shaft. Backstop device allows output shaft rotation in only one sense of direction; according to the size, it is available in the input flange or in the motor with the same dimensions. It is important to specify the required sense of direction on the order. This device is not available for mounting position V5 with motor size IEC 100...280. On request, the direction of rotation of low speed shaft can be reversed; in this case, it is necessary to specify "opposite rotation" to catalogue when ordering.

## SENSE OF DIRECTION AVAILABLE STANDARD

BA..2/S - BA..3/C-D-P-L - B..3/C-D-P-L

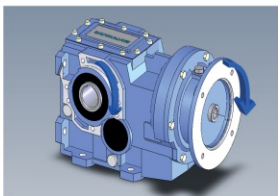


CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

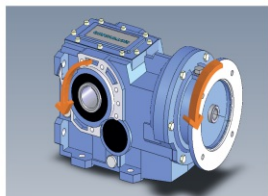


COUNTER CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

BA..2/C-D-P-L - BA..3/S - B..3/S-M



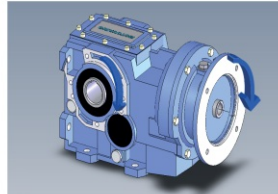
CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT



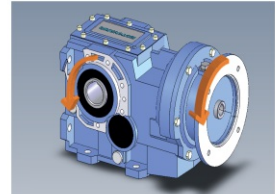
COUNTER CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

## SENSE OF DIRECTION AVAILABLE OPPOSITE ROTATION

BA..2/S - BA..3/C-D-P-L - B..3/C-D-P-L

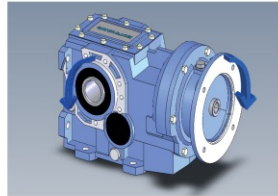


CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

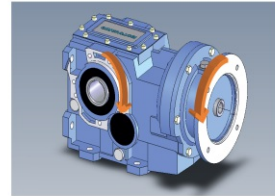


COUNTER CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

BA..2/C-D-P-L - BA..3/S - B..3/S-M



CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

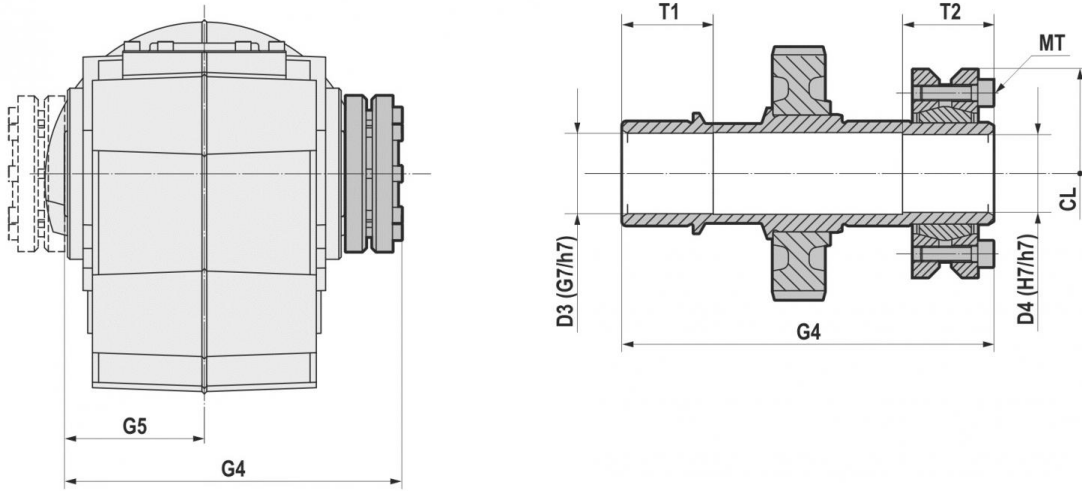


COUNTER CLOCKWISE SENSE OF DIRECTION REFERRED TO HIGH SPEED SHAFT

|      | 063    | 071    | 080    | 090    | 100-112 | 132    | 160    | 180    | 200    | 225    | 250    | 280    |
|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
|      | 140x11 | 160x14 | 200x19 | 200x24 | 250x28  | 300x38 | 350x42 | 350x48 | 400x55 | 450x60 | 550x65 | 550x75 |
| B063 | B5     | B5     | B5     | B5     | B5      |        |        |        |        |        |        |        |
| B083 |        |        | B5     | B5     | B5      | B5     |        |        |        |        |        |        |
| B103 |        |        | B5     | B5     | B5      | B5     | B5     |        |        |        |        |        |
| B123 |        |        |        | B5     | B5      | B5     | B5     | B5     |        |        |        |        |
| B143 |        |        |        |        | B5      | B5     | B5     | B5     | B5     |        |        |        |
| B153 |        |        |        |        |         | B5     | B5     | B5     | B5     | B5     |        |        |
| B163 |        |        |        |        |         |        | B5     | B5     | B5     | B5     | B5     | B5     |

## 4.6 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 ( $M_T$ ).

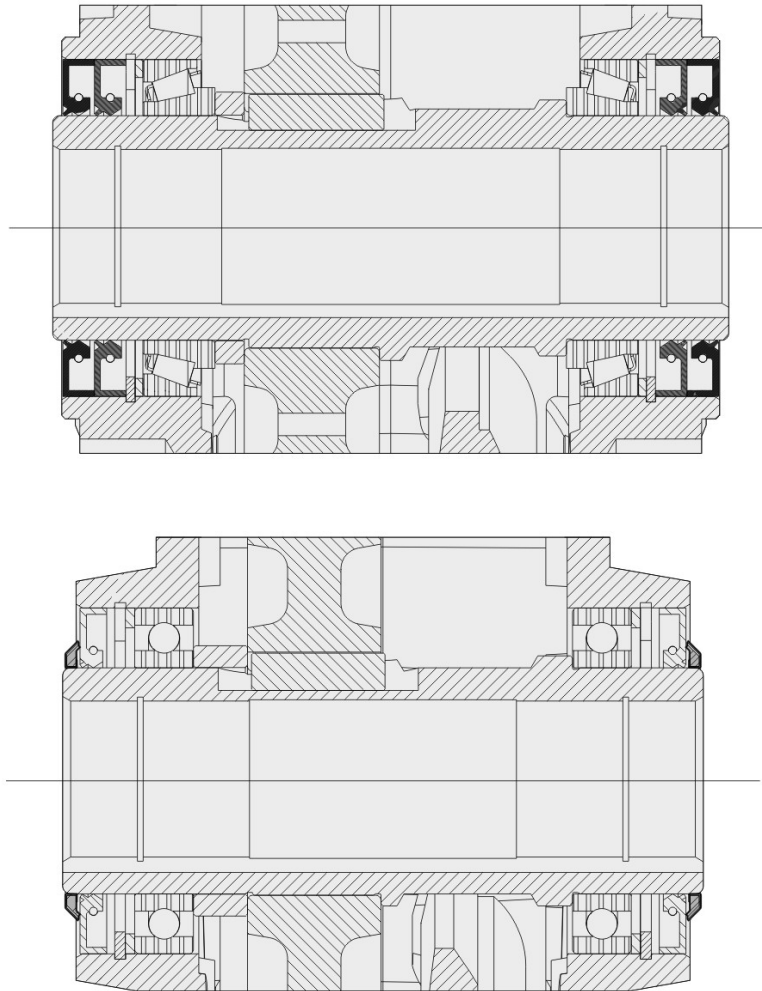


|                  | D3  | D4  | G4  | G5    | T1  | T2  | CL  | $M_T$ 12,9 [Nm] |
|------------------|-----|-----|-----|-------|-----|-----|-----|-----------------|
| <b>BA42</b>      | 24  | 24  | 130 | 50    | 25  | 35  | 72  | 15              |
| <b>BA52-BA53</b> | 31  | 30  | 143 | 56    | 35  | 35  | 80  | 15              |
| <b>BA72-BA73</b> | 36  | 35  | 173 | 70    | 40  | 35  | 80  | 15              |
| <b>B063</b>      | 36  | 35  | 173 | 70    | 40  | 35  | 80  | 15              |
| <b>B083</b>      | 41  | 40  | 217 | 90    | 50  | 40  | 100 | 15              |
| <b>B103</b>      | 51  | 50  | 248 | 105   | 55  | 40  | 115 | 15              |
| <b>B123</b>      | 61  | 60  | 282 | 120   | 60  | 50  | 145 | 40              |
| <b>B143</b>      | 72  | 70  | 355 | 150   | 70  | 65  | 170 | 50              |
| <b>B153</b>      | 92  | 90  | 415 | 175   | 80  | 75  | 184 | 70              |
| <b>B163</b>      | 102 | 100 | 512 | 222,5 | 100 | 100 | 215 | 70              |

## 4.7 REINFORCED OIL SEALS FOR OUTPUT SHAFT

The reinforced seal can be done depending on the gearbox size by means of two oil seals or through the standard oil seal with VRM ring. The difference of the two solutions is explained on the drawings.

On request the gear reducer can be supplied with fluoroelastomer FPM (FKM) seals.

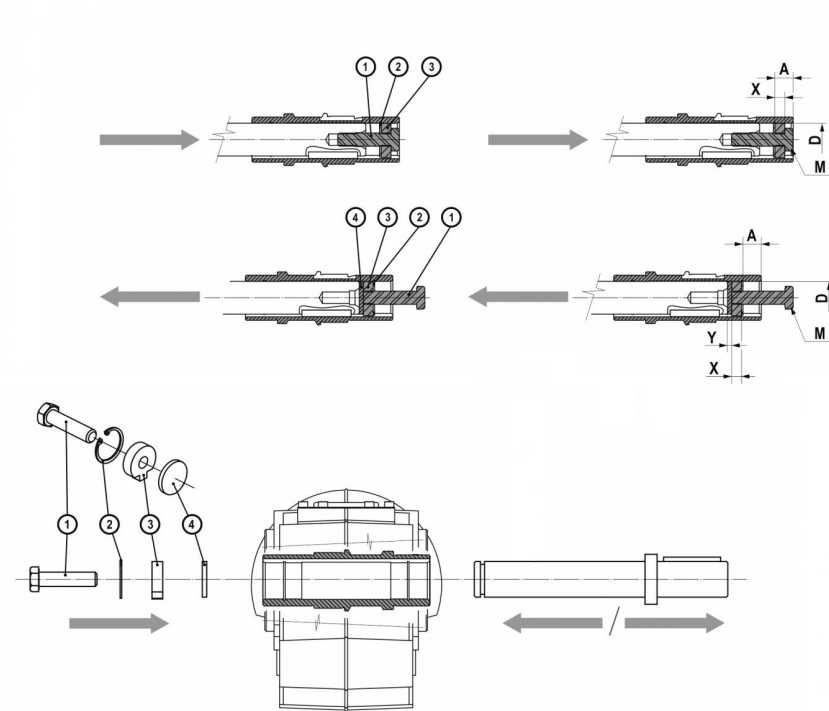


|      | Double oil seal | VRM ring |
|------|-----------------|----------|
| B063 |                 | x        |
| B083 |                 | x        |
| B103 |                 | x        |
| B123 |                 | x        |
| B143 | x               |          |
| B153 | x               |          |
| B163 | x               |          |

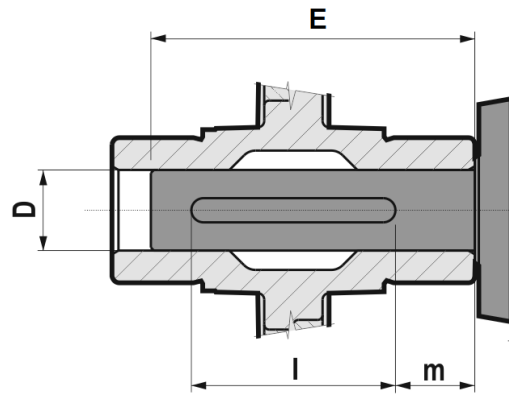
## 4.8 ASSEMBLING/DISASSEMBLING KIT

Mounting/dismounting kit for hollow shaft gear reducers with keyway that includes:

1. Retaining bolt
2. Circlip
3. Fixed nut
4. Forcing washer



|           | D   | A     | X  | Y | M       |
|-----------|-----|-------|----|---|---------|
| BA42      | 20  | -     | -  | - | -       |
| BA52/BA53 | 25  | -     | -  | - | -       |
|           | 28  |       |    |   |         |
| BA72/BA73 | 25  | 12    | 12 | 5 | M12x45  |
|           | 30  | 13,8  | 10 |   | M10x35  |
| B063      | 35  | 12    | 12 | 5 | M12x45  |
|           | 40  |       |    |   | M16x50  |
| B083      | 40  | 22,25 | 12 | 5 | M16x50  |
|           | 45  |       |    |   |         |
| B103      | 50  | 25    | 12 | 5 | M16x50  |
| B123      | 60  | 28    | 16 | 5 | M20x70  |
| B143      | 70  | 27,5  | 16 | 5 | M20x70  |
| B153      | 90  | 34    | 20 | 5 | M24x60  |
| B163      | 100 | 40    | 20 | 5 | M24x120 |



|      | D H7/h6 | E*  | l*  | m* |
|------|---------|-----|-----|----|
| BA40 | 20      | 90  | 60  | 15 |
| BA50 | 25      | 95  | 60  | 18 |
|      | 28      |     |     |    |
| BA70 | 30      | 105 | 80  | 13 |
|      | 35      |     |     |    |
| B063 | 35      | 105 | 80  | 13 |
|      | 40      |     |     |    |
| B083 | 40      | 135 | 100 | 18 |
|      | 45      |     |     |    |
| B103 | 50      | 160 | 120 | 20 |
| B123 | 60      | 185 | 140 | 23 |
| B143 | 70      | 240 | 170 | 35 |
| B153 | 90      | 280 | 200 | 40 |
| B163 | 100     | 370 | 270 | 50 |

(\*) Suggested values.

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,09 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 25,5        | 32         | 3,9 | 33,78  | BA42            | 63A           | 6    | -                | 3507         |
| 18,3        | 45         | 2,8 | 47,12  | BA42            | 63A           | 6    | -                | 3918         |
| 15,0        | 55         | 2,3 | 57,43  | BA42            | 63A           | 6    | -                | 4000         |
| 13,4        | 61         | 1,9 | 64,13  | BA42            | 63A           | 6    | -                | 4000         |
| 13,3        | 62         | 3,4 | 64,87  | BA52            | 63A           | 6    | -                | 4000         |
| 11,7        | 67         | 3,5 | 73,70  | BA53            | 63A           | 6    | -                | 4000         |
| 11,0        | 75         | 1,5 | 78,17  | BA42            | 63A           | 6    | -                | 4000         |
| 10,9        | 76         | 2,8 | 79,07  | BA52            | 63A           | 6    | -                | 4000         |
| 9,2         | 85         | 2,7 | 93,33  | BA53            | 63A           | 6    | -                | 4000         |
| 7,7         | 101        | 2,3 | 111,61 | BA53            | 63A           | 6    | -                | 4000         |
| 6,3         | 124        | 1,9 | 136,53 | BA53            | 63A           | 6    | -                | 4000         |
| 5,7         | 136        | 3,5 | 149,73 | BA73            | 63A           | 6    | 10000            | 5500         |
| 5,0         | 157        | 1,5 | 172,53 | BA53            | 63A           | 6    | -                | 4000         |
| 4,8         | 164        | 2,9 | 180,23 | BA73            | 63A           | 6    | 10000            | 5500         |
| 4,4         | 179        | 1,3 | 197,11 | BA53            | 63A           | 6    | -                | 4000         |
| 3,9         | 203        | 2,3 | 222,93 | BA73            | 63A           | 6    | 10000            | 5500         |
| 3,5         | 226        | 1,0 | 249,08 | BA53            | 63A           | 6    | -                | 4000         |
| 3,3         | 236        | 2,0 | 260,20 | BA73            | 63A           | 6    | 10000            | 5500         |
| 3,2         | 246        | 0,9 | 271,16 | BA53            | 63A           | 6    | -                | 4000         |
| 2,7         | 292        | 1,6 | 321,85 | BA73            | 63A           | 6    | 10000            | 5500         |
| 2,4         | 325        | 1,5 | 357,95 | BA73            | 63A           | 6    | 10000            | 5500         |
| 1,9         | 402        | 1,2 | 442,76 | BA73            | 63A           | 6    | 10000            | 5500         |

## 0,12 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------|------|------------------|--------------|
| 30,7        | 36         | 3,5 | 28,00 | BA42            | 63B           | 6    | -                | 3294         |
| 28,4        | 38         | 3,1 | 47,12 | BA42            | 63A           | 4    | -                | 3379         |
| 27,5        | 40         | 3,2 | 31,27 | BA42            | 63B           | 6    | -                | 3417         |
| 25,5        | 43         | 2,9 | 33,78 | BA42            | 63B           | 6    | -                | 3507         |
| 23,3        | 47         | 2,6 | 57,43 | BA42            | 63A           | 4    | -                | 3610         |
| 20,9        | 52         | 2,1 | 64,13 | BA42            | 63A           | 4    | -                | 3745         |
| 20,7        | 53         | 3,8 | 64,87 | BA52            | 63A           | 4    | -                | 4000         |
| 20,5        | 54         | 3,9 | 41,97 | BA52            | 63B           | 6    | -                | 4000         |
| 18,3        | 60         | 2,1 | 47,12 | BA42            | 63B           | 6    | -                | 3918         |
| 18,2        | 57         | 3,9 | 73,70 | BA53            | 63A           | 4    | -                | 4000         |
| 17,1        | 64         | 1,7 | 78,17 | BA42            | 63A           | 4    | -                | 4000         |
| 16,9        | 64         | 3,1 | 79,07 | BA52            | 63A           | 4    | -                | 4000         |
| 16,8        | 66         | 3,5 | 51,34 | BA52            | 63B           | 6    | -                | 4000         |
| 15,0        | 73         | 1,7 | 57,43 | BA42            | 63B           | 6    | -                | 4000         |
| 14,4        | 72         | 3,1 | 93,33 | BA53            | 63A           | 4    | -                | 4000         |
| 13,4        | 82         | 1,4 | 64,13 | BA42            | 63B           | 6    | -                | 4000         |



## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,12 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Size | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------|---------------|------------------|--------------|
| 13,3        | 83         | 2,5 | 64,87  | BA52            | 63B  | 6             | -                | 4000         |
| 12,0        | 86         | 2,6 | 111,61 | BA53            | 63A  | 4             | -                | 4000         |
| 11,7        | 89         | 2,6 | 73,70  | BA53            | 63B  | 6             | -                | 4000         |
| 11,0        | 100        | 1,2 | 78,17  | BA42            | 63B  | 6             | -                | 4000         |
| 10,9        | 101        | 2,1 | 79,07  | BA52            | 63B  | 6             | -                | 4000         |
| 9,8         | 105        | 2,1 | 136,53 | BA53            | 63A  | 4             | -                | 4000         |
| 9,2         | 113        | 2,0 | 93,33  | BA53            | 63B  | 6             | -                | 4000         |
| 8,9         | 115        | 3,9 | 149,73 | BA73            | 63A  | 4             | 10000            | 5500         |
| 7,8         | 133        | 1,7 | 172,53 | BA53            | 63A  | 4             | -                | 4000         |
| 7,7         | 135        | 1,7 | 111,61 | BA53            | 63B  | 6             | -                | 4000         |
| 7,4         | 139        | 3,2 | 180,23 | BA73            | 63A  | 4             | 10000            | 5500         |
| 7,1         | 146        | 3,2 | 120,34 | BA73            | 63B  | 6             | 10000            | 5500         |
| 6,8         | 152        | 1,5 | 197,11 | BA53            | 63A  | 4             | -                | 4000         |
| 6,3         | 165        | 1,4 | 136,53 | BA53            | 63B  | 6             | -                | 4000         |
| 6,2         | 169        | 3,7 | 139,15 | BO63            | 63B  | 6             | 12000            | 7811         |
| 6,0         | 172        | 2,6 | 222,93 | BA73            | 63A  | 4             | 10000            | 5500         |
| 5,7         | 181        | 2,6 | 149,73 | BA73            | 63B  | 6             | 10000            | 5500         |
| 5,5         | 191        | 3,3 | 157,42 | BO63            | 63B  | 6             | 12000            | 8000         |
| 5,4         | 192        | 1,1 | 249,08 | BA53            | 63A  | 4             | -                | 4000         |
| 5,1         | 200        | 2,2 | 260,20 | BA73            | 63A  | 4             | 10000            | 5500         |
| 5,0         | 209        | 1,1 | 172,53 | BA53            | 63B  | 6             | -                | 4000         |
| 4,9         | 209        | 1,1 | 271,16 | BA53            | 63A  | 4             | -                | 4000         |
| 4,8         | 218        | 2,2 | 180,23 | BA73            | 63B  | 6             | 10000            | 5500         |
| 4,4         | 239        | 1,0 | 197,11 | BA53            | 63B  | 6             | -                | 4000         |
| 4,2         | 248        | 1,8 | 321,85 | BA73            | 63A  | 4             | 10000            | 5500         |
| 3,9         | 270        | 1,7 | 222,93 | BA73            | 63B  | 6             | 10000            | 5500         |
| 3,7         | 276        | 1,6 | 357,95 | BA73            | 63A  | 4             | 10000            | 5500         |
| 3,3         | 315        | 1,5 | 260,20 | BA73            | 63B  | 6             | 10000            | 5500         |
| 3,0         | 341        | 1,3 | 442,76 | BA73            | 63A  | 4             | 10000            | 5500         |
| 2,7         | 390        | 1,2 | 321,85 | BA73            | 63B  | 6             | 10000            | 5500         |
| 2,4         | 434        | 1,1 | 357,95 | BA73            | 63B  | 6             | 10000            | 5500         |

## 0,15 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Size | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------|---------------|------------------|--------------|
| 56,0        | 25         | 3,9 | 14,46 | BA42            | 63C  | 6             | -                | 2696         |
| 35,3        | 39         | 3,2 | 22,97 | BA42            | 63C  | 6             | -                | 3146         |
| 28,9        | 48         | 2,7 | 28,00 | BA42            | 63C  | 6             | -                | 3360         |
| 25,9        | 53         | 2,4 | 31,27 | BA42            | 63C  | 6             | -                | 3486         |
| 25,6        | 54         | 3,9 | 31,63 | BA52            | 63C  | 6             | -                | 3750         |
| 24,0        | 57         | 2,2 | 33,78 | BA42            | 63C  | 6             | -                | 3577         |
| 23,1        | 60         | 3,5 | 35,10 | BA52            | 63C  | 6             | -                | 3882         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,15 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Size | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------|---------------|------------------|--------------|
| 19,3        | 71         | 2,9 | 41,97  | BA52            | 63C  | 6             | -                | 4000         |
| 17,2        | 80         | 1,6 | 47,12  | BA42            | 63C  | 6             | -                | 3997         |
| 15,8        | 87         | 2,7 | 51,34  | BA52            | 63C  | 6             | -                | 4000         |
| 14,1        | 97         | 1,3 | 57,43  | BA42            | 63C  | 6             | -                | 4000         |
| 12,6        | 109        | 1,1 | 64,13  | BA42            | 63C  | 6             | -                | 4000         |
| 12,5        | 110        | 1,9 | 64,87  | BA52            | 63C  | 6             | -                | 4000         |
| 11,0        | 118        | 1,9 | 73,70  | BA53            | 63C  | 6             | -                | 4000         |
| 10,2        | 134        | 1,6 | 79,07  | BA52            | 63C  | 6             | -                | 4000         |
| 10,0        | 130        | 3,6 | 80,83  | BA73            | 63C  | 6             | 10000            | 5500         |
| 8,7         | 150        | 1,5 | 93,33  | BA53            | 63C  | 6             | -                | 4000         |
| 8,3         | 156        | 3,0 | 97,29  | BA73            | 63C  | 6             | 10000            | 5500         |
| 8,0         | 163        | 3,9 | 101,20 | B063            | 63C  | 6             | 12000            | 7162         |
| 7,3         | 179        | 1,3 | 111,61 | BA53            | 63C  | 6             | -                | 4000         |
| 7,2         | 180        | 3,5 | 111,74 | B063            | 63C  | 6             | 12000            | 7385         |
| 6,7         | 193        | 2,4 | 120,34 | BA73            | 63C  | 6             | 10000            | 5500         |
| 6,5         | 200        | 3,2 | 124,20 | B063            | 63C  | 6             | 12000            | 7630         |
| 5,9         | 219        | 1,1 | 136,53 | BA53            | 63C  | 6             | -                | 4000         |
| 5,8         | 224        | 2,8 | 139,15 | B063            | 63C  | 6             | 12000            | 7900         |
| 5,4         | 241        | 2,0 | 149,73 | BA73            | 63C  | 6             | 10000            | 5500         |
| 5,1         | 253        | 2,5 | 157,42 | B063            | 63C  | 6             | 12000            | 8000         |
| 4,5         | 290        | 1,6 | 180,23 | BA73            | 63C  | 6             | 10000            | 5500         |
| 3,6         | 358        | 1,3 | 222,93 | BA73            | 63C  | 6             | 10000            | 5500         |
| 3,1         | 418        | 1,1 | 260,20 | BA73            | 63C  | 6             | 10000            | 5500         |
| 2,5         | 517        | 0,9 | 321,85 | BA73            | 63C  | 6             | 10000            | 5500         |

## 0,18 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Size | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------|---------------|------------------|--------------|
| 69,5        | 24         | 4,0 | 12,95 | BA42            | 71A  | 6             | -                | 2509         |
| 62,2        | 26         | 3,6 | 14,46 | BA42            | 71A  | 6             | -                | 2603         |
| 59,4        | 27         | 3,4 | 47,12 | BA42            | 63A  | 2             | -                | 2643         |
| 48,8        | 32         | 2,8 | 57,43 | BA42            | 63A  | 2             | -                | 2824         |
| 47,5        | 34         | 3,5 | 28,00 | BA42            | 63B  | 4             | -                | 2848         |
| 43,7        | 36         | 2,3 | 64,13 | BA42            | 63A  | 2             | -                | 2929         |
| 42,5        | 38         | 3,1 | 31,27 | BA42            | 63B  | 4             | -                | 2955         |
| 39,4        | 41         | 2,9 | 33,78 | BA42            | 63B  | 4             | -                | 3032         |
| 39,2        | 42         | 3,0 | 22,97 | BA42            | 71A  | 6             | -                | 3037         |
| 35,8        | 44         | 1,9 | 78,17 | BA42            | 63A  | 2             | -                | 3129         |
| 35,4        | 45         | 3,4 | 79,07 | BA52            | 63A  | 2             | -                | 3366         |
| 32,1        | 51         | 2,5 | 28,00 | BA42            | 71A  | 6             | -                | 3244         |
| 31,7        | 52         | 3,9 | 41,97 | BA52            | 63B  | 4             | -                | 3492         |
| 30,0        | 50         | 3,3 | 93,33 | BA53            | 63A  | 2             | -                | 3557         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,18 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 28,8        | 57         | 2,2 | 31,27  | BA42            | 71A           | 6    | -                | 3366         |
| 28,5        | 58         | 3,6 | 31,63  | BA52            | 71A           | 6    | -                | 3620         |
| 28,2        | 58         | 2,1 | 47,12  | BA42            | 63B           | 4    | -                | 3388         |
| 26,6        | 62         | 2,0 | 33,78  | BA42            | 71A           | 6    | -                | 3454         |
| 25,9        | 63         | 3,5 | 51,34  | BA52            | 63B           | 4    | -                | 3735         |
| 25,6        | 64         | 3,3 | 35,10  | BA52            | 71A           | 6    | -                | 3748         |
| 25,1        | 60         | 2,8 | 111,61 | BA53            | 63A           | 2    | -                | 3775         |
| 23,2        | 71         | 1,7 | 57,43  | BA42            | 63B           | 4    | -                | 3619         |
| 21,4        | 77         | 2,7 | 41,97  | BA52            | 71A           | 6    | -                | 3978         |
| 20,7        | 79         | 1,4 | 64,13  | BA42            | 63B           | 4    | -                | 3754         |
| 20,5        | 80         | 2,5 | 64,87  | BA52            | 63B           | 4    | -                | 4000         |
| 20,5        | 73         | 2,3 | 136,53 | BA53            | 63A           | 2    | -                | 4000         |
| 19,1        | 86         | 1,5 | 47,12  | BA42            | 71A           | 6    | -                | 3859         |
| 18,0        | 86         | 2,6 | 73,70  | BA53            | 63B           | 4    | -                | 4000         |
| 17,5        | 94         | 2,5 | 51,34  | BA52            | 71A           | 6    | -                | 4000         |
| 17,0        | 96         | 1,1 | 78,17  | BA42            | 63B           | 4    | -                | 4000         |
| 16,8        | 97         | 2,1 | 79,07  | BA52            | 63B           | 4    | -                | 4000         |
| 16,2        | 92         | 1,8 | 172,53 | BA53            | 63A           | 2    | -                | 4000         |
| 15,7        | 105        | 1,2 | 57,43  | BA42            | 71A           | 6    | -                | 4000         |
| 15,5        | 96         | 3,5 | 180,23 | BA73            | 63A           | 2    | 10000            | 5500         |
| 14,3        | 109        | 2,0 | 93,33  | BA53            | 63B           | 4    | -                | 4000         |
| 14,2        | 105        | 1,6 | 197,11 | BA53            | 63A           | 2    | -                | 4000         |
| 14,0        | 118        | 1,0 | 64,13  | BA42            | 71A           | 6    | -                | 4000         |
| 13,9        | 119        | 1,8 | 64,87  | BA52            | 71A           | 6    | -                | 4000         |
| 13,7        | 113        | 4,0 | 97,29  | BA73            | 63B           | 4    | 10000            | 5500         |
| 12,6        | 119        | 2,8 | 222,93 | BA73            | 63A           | 2    | 10000            | 5500         |
| 12,2        | 128        | 1,8 | 73,70  | BA53            | 71A           | 6    | -                | 4000         |
| 11,9        | 130        | 1,7 | 111,61 | BA53            | 63B           | 4    | -                | 4000         |
| 11,4        | 145        | 1,4 | 79,07  | BA52            | 71A           | 6    | -                | 4000         |
| 11,2        | 133        | 1,2 | 249,08 | BA53            | 63A           | 2    | -                | 4000         |
| 11,1        | 140        | 3,4 | 80,83  | BA73            | 71A           | 6    | 10000            | 5500         |
| 11,1        | 140        | 3,2 | 120,34 | BA73            | 63B           | 4    | 10000            | 5500         |
| 10,8        | 139        | 2,4 | 260,20 | BA73            | 63A           | 2    | 10000            | 5500         |
| 10,3        | 145        | 1,1 | 271,16 | BA53            | 63A           | 2    | -                | 4000         |
| 9,7         | 159        | 1,4 | 136,53 | BA53            | 63B           | 4    | -                | 4000         |
| 9,6         | 162        | 3,7 | 139,15 | B063            | 63B           | 4    | 12000            | 6744         |
| 9,6         | 162        | 1,4 | 93,33  | BA53            | 71A           | 6    | -                | 4000         |
| 9,3         | 169        | 2,8 | 97,29  | BA73            | 71A           | 6    | 10000            | 5500         |
| 8,9         | 176        | 3,6 | 101,20 | B063            | 71A           | 6    | 12000            | 6893         |
| 8,9         | 174        | 2,6 | 149,73 | BA73            | 63B           | 4    | 10000            | 5500         |
| 8,7         | 172        | 2,0 | 321,85 | BA73            | 63A           | 2    | 10000            | 5500         |
| 8,4         | 183        | 3,3 | 157,42 | B063            | 63B           | 4    | 12000            | 7005         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,18 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Size | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------|---------------|------------------|--------------|
| 8,1         | 194        | 3,2 | 111,74 | B063            | 71A  | 6             | 12000            | 7106         |
| 8,1         | 194        | 1,2 | 111,61 | BA53            | 71A  | 6             | -                | 4000         |
| 7,8         | 191        | 1,8 | 357,95 | BA73            | 63A  | 2             | 10000            | 5500         |
| 7,7         | 201        | 1,1 | 172,53 | BA53            | 63B  | 4             | -                | 4000         |
| 7,5         | 209        | 2,3 | 120,34 | BA73            | 71A  | 6             | 10000            | 5500         |
| 7,4         | 210        | 2,1 | 180,23 | BA73            | 63B  | 4             | 10000            | 5500         |
| 7,2         | 216        | 2,9 | 124,20 | B063            | 71A  | 6             | 12000            | 7340         |
| 6,7         | 229        | 1,0 | 197,11 | BA53            | 63B  | 4             | -                | 4000         |
| 6,6         | 237        | 1,0 | 136,53 | BA53            | 71A  | 6             | -                | 4000         |
| 6,5         | 242        | 2,6 | 139,15 | B063            | 71A  | 6             | 12000            | 7597         |
| 6,3         | 236        | 1,4 | 442,76 | BA73            | 63A  | 2             | 10000            | 5500         |
| 6,0         | 260        | 1,8 | 149,73 | BA73            | 71A  | 6             | 10000            | 5500         |
| 6,0         | 259        | 1,7 | 222,93 | BA73            | 63B  | 4             | 10000            | 5500         |
| 5,7         | 273        | 2,3 | 157,42 | B063            | 71A  | 6             | 12000            | 7885         |
| 5,1         | 303        | 1,5 | 260,20 | BA73            | 63B  | 4             | 10000            | 5500         |
| 5,0         | 313        | 1,5 | 180,23 | BA73            | 71A  | 6             | 10000            | 5500         |
| 4,1         | 374        | 1,2 | 321,85 | BA73            | 63B  | 4             | 10000            | 5500         |
| 4,0         | 387        | 1,2 | 222,93 | BA73            | 71A  | 6             | 10000            | 5500         |
| 3,7         | 416        | 1,1 | 357,95 | BA73            | 63B  | 4             | 10000            | 5500         |
| 3,5         | 452        | 1,0 | 260,20 | BA73            | 71A  | 6             | 10000            | 5500         |

## 0,22 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Size | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------|---------------|------------------|--------------|
| 57,9        | 34         | 3,5 | 22,97  | BA42            | 63C  | 4             | -                | 2667         |
| 47,5        | 42         | 2,9 | 28,00  | BA42            | 63C  | 4             | -                | 2848         |
| 42,5        | 47         | 2,6 | 31,27  | BA42            | 63C  | 4             | -                | 2955         |
| 39,4        | 51         | 2,4 | 33,78  | BA42            | 63C  | 4             | -                | 3032         |
| 37,9        | 53         | 3,8 | 35,10  | BA52            | 63C  | 4             | -                | 3290         |
| 31,7        | 63         | 3,2 | 41,97  | BA52            | 63C  | 4             | -                | 3492         |
| 28,2        | 71         | 1,7 | 47,12  | BA42            | 63C  | 4             | -                | 3388         |
| 25,9        | 77         | 2,9 | 51,34  | BA52            | 63C  | 4             | -                | 3735         |
| 23,2        | 86         | 1,4 | 57,43  | BA42            | 63C  | 4             | -                | 3619         |
| 20,7        | 96         | 1,1 | 64,13  | BA42            | 63C  | 4             | -                | 3754         |
| 20,5        | 97         | 2,1 | 64,87  | BA52            | 63C  | 4             | -                | 4000         |
| 18,0        | 105        | 2,1 | 73,70  | BA53            | 63C  | 4             | -                | 4000         |
| 17,0        | 117        | 0,9 | 78,17  | BA42            | 63C  | 4             | -                | 4000         |
| 16,8        | 119        | 1,7 | 79,07  | BA52            | 63C  | 4             | -                | 4000         |
| 16,5        | 115        | 3,9 | 80,83  | BA73            | 63C  | 4             | 10000            | 5500         |
| 14,3        | 133        | 1,7 | 93,33  | BA53            | 63C  | 4             | -                | 4000         |
| 13,7        | 138        | 3,3 | 97,29  | BA73            | 63C  | 4             | 10000            | 5500         |
| 11,9        | 159        | 3,8 | 111,74 | B063            | 63C  | 4             | 12000            | 6262         |

## 0,22 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|------------|------------|---------------|-----------|
| 11,9     | 159     | 1,4 | 111,61 | BA53         | 63C        | 4          | -             | 4000      |
| 11,1     | 171     | 2,6 | 120,34 | BA73         | 63C        | 4          | 10000         | 5500      |
| 10,7     | 177     | 3,4 | 124,20 | BO63         | 63C        | 4          | 12000         | 6469      |
| 9,7      | 194     | 1,1 | 136,53 | BA53         | 63C        | 4          | -             | 4000      |
| 9,6      | 198     | 3,0 | 139,15 | BO63         | 63C        | 4          | 12000         | 6697      |
| 8,9      | 213     | 2,1 | 149,73 | BA73         | 63C        | 4          | 10000         | 5500      |
| 8,4      | 224     | 2,7 | 157,42 | BO63         | 63C        | 4          | 12000         | 6953      |
| 7,4      | 256     | 1,8 | 180,23 | BA73         | 63C        | 4          | 10000         | 5500      |
| 6,0      | 317     | 1,4 | 222,93 | BA73         | 63C        | 4          | 10000         | 5500      |
| 5,1      | 370     | 1,2 | 260,20 | BA73         | 63C        | 4          | 10000         | 5500      |
| 4,1      | 458     | 1,0 | 321,85 | BA73         | 63C        | 4          | 10000         | 5500      |

## 0,25 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|------------|------------|---------------|-----------|
| 91,3     | 25      | 3,6 | 14,46 | BA42         | 63D/71A    | 4          | -             | 2291      |
| 89,6     | 24      | 3,7 | 31,27 | BA42         | 63B        | 2          | -             | 2306      |
| 84,7     | 27      | 3,5 | 10,62 | BA42         | 71B        | 6          | -             | 2349      |
| 82,9     | 26      | 3,4 | 33,78 | BA42         | 63B        | 2          | -             | 2366      |
| 69,5     | 33      | 2,9 | 12,95 | BA42         | 71B        | 6          | -             | 2509      |
| 62,2     | 37      | 2,6 | 14,46 | BA42         | 71B        | 6          | -             | 2603      |
| 59,4     | 37      | 2,4 | 47,12 | BA42         | 63B        | 2          | -             | 2643      |
| 57,5     | 39      | 3,0 | 22,97 | BA42         | 63D/71A    | 4          | -             | 2673      |
| 54,6     | 42      | 3,0 | 16,47 | BA42         | 71B        | 6          | -             | 2718      |
| 48,8     | 45      | 2,0 | 57,43 | BA42         | 63B        | 2          | -             | 2824      |
| 47,1     | 48      | 2,5 | 28,00 | BA42         | 63D/71A    | 4          | -             | 2855      |
| 43,7     | 50      | 1,6 | 64,13 | BA42         | 63B        | 2          | -             | 2929      |
| 43,2     | 51      | 3,0 | 64,87 | BA52         | 63B        | 2          | -             | 3151      |
| 42,2     | 54      | 2,2 | 31,27 | BA42         | 63D/71A    | 4          | -             | 2962      |
| 41,7     | 54      | 3,7 | 31,63 | BA52         | 63D/71A    | 4          | -             | 3186      |
| 39,2     | 58      | 2,2 | 22,97 | BA42         | 71B        | 6          | -             | 3037      |
| 39,1     | 58      | 2,1 | 33,78 | BA42         | 63D/71A    | 4          | -             | 3040      |
| 38,0     | 55      | 3,0 | 73,70 | BA53         | 63B        | 2          | -             | 3288      |
| 37,6     | 60      | 3,3 | 35,10 | BA52         | 63D/71A    | 4          | -             | 3299      |
| 36,0     | 64      | 3,3 | 25,03 | BA52         | 71B        | 6          | -             | 3349      |
| 35,8     | 61      | 1,4 | 78,17 | BA42         | 63B        | 2          | -             | 3129      |
| 35,4     | 62      | 2,4 | 79,07 | BA52         | 63B        | 2          | -             | 3366      |
| 32,1     | 71      | 1,8 | 28,00 | BA42         | 71B        | 6          | -             | 3244      |
| 31,5     | 72      | 2,8 | 41,97 | BA52         | 63D/71A    | 4          | -             | 3501      |
| 30,0     | 69      | 2,4 | 93,33 | BA53         | 63B        | 2          | -             | 3557      |
| 28,8     | 80      | 1,6 | 31,27 | BA42         | 71B        | 6          | -             | 3366      |
| 28,5     | 81      | 2,6 | 31,63 | BA52         | 71B        | 6          | -             | 3620      |

## 0,25 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 28,0        | 81         | 1,5 | 47,12  | BA42            | 63D/71A       | 4    | -                | 3396         |
| 26,6        | 86         | 1,5 | 33,78  | BA42            | 71B           | 6    | -                | 3454         |
| 25,7        | 88         | 2,5 | 51,34  | BA52            | 63D/71A       | 4    | -                | 3745         |
| 25,6        | 89         | 2,4 | 35,10  | BA52            | 71B           | 6    | -                | 3748         |
| 25,1        | 83         | 2,0 | 111,61 | BA53            | 63B           | 2    | -                | 3775         |
| 23,3        | 89         | 3,8 | 120,34 | BA73            | 63B           | 2    | 9807             | 4904         |
| 23,0        | 99         | 1,2 | 57,43  | BA42            | 63D/71A       | 4    | -                | 3628         |
| 21,4        | 107        | 2,0 | 41,97  | BA52            | 71B           | 6    | -                | 3978         |
| 20,6        | 110        | 1,0 | 64,13  | BA42            | 63D/71A       | 4    | -                | 3764         |
| 20,5        | 101        | 1,6 | 136,53 | BA53            | 63B           | 2    | -                | 4000         |
| 20,3        | 111        | 1,8 | 64,87  | BA52            | 63D/71A       | 4    | -                | 4000         |
| 19,1        | 120        | 1,1 | 47,12  | BA42            | 71B           | 6    | -                | 3859         |
| 18,7        | 111        | 3,0 | 149,73 | BA73            | 63B           | 2    | 10000            | 5274         |
| 17,9        | 120        | 1,8 | 73,70  | BA53            | 63D/71A       | 4    | -                | 4000         |
| 17,8        | 117        | 3,9 | 157,42 | B063            | 63B           | 2    | 12000            | 5514         |
| 17,5        | 131        | 1,8 | 51,34  | BA52            | 71B           | 6    | -                | 4000         |
| 17,0        | 127        | 3,7 | 52,83  | BA73            | 71B           | 6    | 10000            | 5441         |
| 16,7        | 136        | 1,5 | 79,07  | BA52            | 63D/71A       | 4    | -                | 4000         |
| 16,3        | 132        | 3,4 | 80,83  | BA73            | 63D/71A       | 4    | 10000            | 5500         |
| 16,2        | 128        | 1,3 | 172,53 | BA53            | 63B           | 2    | -                | 4000         |
| 15,5        | 133        | 2,5 | 180,23 | BA73            | 63B           | 2    | 10000            | 5500         |
| 14,2        | 146        | 1,1 | 197,11 | BA53            | 63B           | 2    | -                | 4000         |
| 14,1        | 152        | 1,4 | 93,33  | BA53            | 63D/71A       | 4    | -                | 4000         |
| 13,9        | 165        | 1,3 | 64,87  | BA52            | 71B           | 6    | -                | 4000         |
| 13,8        | 158        | 3,0 | 65,35  | BA73            | 71B           | 6    | 10000            | 5500         |
| 13,6        | 158        | 2,8 | 97,29  | BA73            | 63D/71A       | 4    | 10000            | 5500         |
| 13,0        | 167        | 3,8 | 69,16  | B063            | 71B           | 6    | 12000            | 6064         |
| 13,0        | 165        | 3,6 | 101,20 | B063            | 63D/71A       | 4    | 12000            | 6062         |
| 12,6        | 165        | 2,0 | 222,93 | BA73            | 63B           | 2    | 10000            | 5500         |
| 12,2        | 178        | 1,3 | 73,70  | BA53            | 71B           | 6    | -                | 4000         |
| 11,8        | 182        | 3,3 | 111,74 | B063            | 63D/71A       | 4    | 12000            | 6249         |
| 11,8        | 182        | 1,2 | 111,61 | BA53            | 63D/71A       | 4    | -                | 4000         |
| 11,6        | 187        | 3,4 | 77,48  | B063            | 71B           | 6    | 12000            | 6278         |
| 11,4        | 201        | 1,0 | 79,07  | BA52            | 71B           | 6    | -                | 4000         |
| 11,1        | 195        | 2,4 | 80,83  | BA73            | 71B           | 6    | 10000            | 5500         |
| 11,0        | 196        | 2,3 | 120,34 | BA73            | 63D/71A       | 4    | 10000            | 5500         |
| 10,8        | 193        | 1,8 | 260,20 | BA73            | 63B           | 2    | 10000            | 5500         |
| 10,6        | 202        | 3,0 | 124,20 | B063            | 63D/71A       | 4    | 12000            | 6453         |
| 10,0        | 218        | 2,9 | 90,33  | B063            | 71B           | 6    | 12000            | 6577         |
| 9,7         | 222        | 1,0 | 136,53 | BA53            | 63D/71A       | 4    | -                | 4000         |
| 9,6         | 225        | 1,0 | 93,33  | BA53            | 71B           | 6    | -                | 4000         |
| 9,5         | 227        | 2,6 | 139,15 | B063            | 63D/71A       | 4    | 12000            | 6678         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,25 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Size    | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|---------|------------|---------------|-----------|
| 9,3      | 235     | 2,0 | 97,29  | BA73         | 71B     | 6          | 10000         | 5500      |
| 8,9      | 244     | 2,6 | 101,20 | B063         | 71B     | 6          | 12000         | 6805      |
| 8,8      | 244     | 1,8 | 149,73 | BA73         | 63D/71A | 4          | 10000         | 5500      |
| 8,7      | 238     | 1,4 | 321,85 | BA73         | 63B     | 2          | 10000         | 5500      |
| 8,4      | 256     | 2,3 | 157,42 | B063         | 63D/71A | 4          | 12000         | 6929      |
| 8,1      | 269     | 2,3 | 111,74 | B063         | 71B     | 6          | 12000         | 7009      |
| 7,8      | 265     | 1,3 | 357,95 | BA73         | 63B     | 2          | 10000         | 5500      |
| 7,5      | 290     | 1,6 | 120,34 | BA73         | 71B     | 6          | 10000         | 5500      |
| 7,3      | 293     | 1,5 | 180,23 | BA73         | 63D/71A | 4          | 10000         | 5500      |
| 7,2      | 299     | 2,1 | 124,20 | B063         | 71B     | 6          | 12000         | 7232      |
| 6,5      | 336     | 1,9 | 139,15 | B063         | 71B     | 6          | 12000         | 7476      |
| 6,3      | 328     | 1,0 | 442,76 | BA73         | 63B     | 2          | 10000         | 5500      |
| 6,0      | 361     | 1,3 | 149,73 | BA73         | 71B     | 6          | 10000         | 5500      |
| 5,9      | 363     | 1,2 | 222,93 | BA73         | 63D/71A | 4          | 10000         | 5500      |
| 5,7      | 380     | 1,7 | 157,42 | B063         | 71B     | 6          | 12000         | 7748      |
| 5,1      | 424     | 1,1 | 260,20 | BA73         | 63D/71A | 4          | 10000         | 5500      |
| 5,0      | 435     | 1,1 | 180,23 | BA73         | 71B     | 6          | 10000         | 5500      |
| 4,3      | 498     | 0,9 | 321,85 | BA73         | 71A     | 4          | 10000         | 5500      |

## 0,37 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Size    | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------|------------|---------------|-----------|
| 129,9    | 26      | 3,5 | 10,62 | BA42         | 71B     | 4          | -             | 2037      |
| 121,4    | 27      | 3,4 | 22,97 | BA42         | 63C/71A | 2          | -             | 2083      |
| 115,5    | 29      | 3,2 | 7,62  | BA42         | 71C/80A | 6          | -             | 2118      |
| 106,6    | 31      | 2,9 | 12,95 | BA42         | 71B     | 4          | -             | 2176      |
| 99,6     | 33      | 2,8 | 28,00 | BA42         | 63C/71A | 2          | -             | 2225      |
| 95,4     | 35      | 2,6 | 14,46 | BA42         | 71B     | 4          | -             | 2257      |
| 89,2     | 36      | 2,5 | 31,27 | BA42         | 63C/71A | 2          | -             | 2308      |
| 83,8     | 40      | 3,0 | 16,47 | BA42         | 71B     | 4          | -             | 2357      |
| 82,8     | 41      | 2,3 | 10,62 | BA42         | 71C/80A | 6          | -             | 2366      |
| 82,6     | 39      | 2,3 | 33,78 | BA42         | 63C/71A | 2          | -             | 2369      |
| 79,5     | 41      | 3,7 | 35,10 | BA52         | 63C/71A | 2          | -             | 2570      |
| 76,0     | 45      | 3,8 | 11,57 | BA52         | 71C     | 6          | -             | 2609      |
| 68,0     | 50      | 1,9 | 12,95 | BA42         | 71C/80A | 6          | -             | 2528      |
| 66,5     | 49      | 3,1 | 41,97 | BA52         | 63C/71A | 2          | -             | 2728      |
| 60,9     | 56      | 1,7 | 14,46 | BA42         | 71C/80A | 6          | -             | 2622      |
| 60,2     | 56      | 3,0 | 14,63 | BA52         | 71C/80A | 6          | -             | 2820      |
| 60,1     | 56      | 2,1 | 22,97 | BA42         | 71B     | 4          | -             | 2634      |
| 59,2     | 55      | 1,6 | 47,12 | BA42         | 63C/71A | 2          | -             | 2647      |
| 55,1     | 61      | 3,3 | 25,03 | BA52         | 71B     | 4          | -             | 2904      |
| 54,3     | 60      | 2,8 | 51,34 | BA52         | 63C/71A | 2          | -             | 2918      |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,37 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 53,4        | 63         | 2,0 | 16,47  | BA42            | 71C/80A       | 6    | -                | 2739         |
| 51,4        | 66         | 3,2 | 17,11  | BA52            | 71C/80A       | 6    | -                | 2972         |
| 49,3        | 68         | 1,8 | 28,00  | BA42            | 71B           | 4    | -                | 2813         |
| 48,6        | 67         | 1,3 | 57,43  | BA42            | 63C/71A       | 2    | -                | 2827         |
| 44,1        | 76         | 1,6 | 31,27  | BA42            | 71B           | 4    | -                | 2919         |
| 43,6        | 77         | 2,6 | 31,63  | BA52            | 71B           | 4    | -                | 3139         |
| 43,5        | 74         | 1,1 | 64,13  | BA42            | 63C/71A       | 2    | -                | 2933         |
| 43,0        | 79         | 2,7 | 20,46  | BA52            | 71C/80A       | 6    | -                | 3154         |
| 43,0        | 75         | 2,0 | 64,87  | BA52            | 63C/71A       | 2    | -                | 3155         |
| 40,9        | 82         | 1,5 | 33,78  | BA42            | 71B           | 4    | -                | 2995         |
| 39,3        | 85         | 2,3 | 35,10  | BA52            | 71B           | 4    | -                | 3250         |
| 38,3        | 89         | 1,4 | 22,97  | BA42            | 71C/80A       | 6    | -                | 3060         |
| 37,9        | 81         | 2,0 | 73,70  | BA53            | 63C/71A       | 2    | -                | 3292         |
| 35,3        | 92         | 1,6 | 79,07  | BA52            | 63C/71A       | 2    | -                | 3370         |
| 35,2        | 96         | 2,2 | 25,03  | BA52            | 71C/80A       | 6    | -                | 3374         |
| 34,5        | 89         | 3,8 | 80,83  | BA73            | 63C/71A       | 2    | 8599             | 4300         |
| 32,9        | 102        | 2,0 | 41,97  | BA52            | 71B           | 4    | -                | 3450         |
| 31,4        | 108        | 1,2 | 28,00  | BA42            | 71C/80A       | 6    | -                | 3269         |
| 29,9        | 103        | 1,6 | 93,33  | BA53            | 63C/71A       | 2    | -                | 3561         |
| 29,3        | 115        | 1,0 | 47,12  | BA42            | 71B           | 4    | -                | 3347         |
| 28,7        | 107        | 3,2 | 97,29  | BA73            | 63C/71A       | 2    | 9147             | 4574         |
| 28,4        | 119        | 3,7 | 33,04  | BA72            | 80A           | 6    | 9172             | 4586         |
| 28,1        | 120        | 1,0 | 31,27  | BA42            | 71C/80A       | 6    | -                | 3391         |
| 27,8        | 122        | 1,7 | 31,63  | BA52            | 71C/80A       | 6    | -                | 3647         |
| 26,9        | 125        | 1,8 | 51,34  | BA52            | 71B           | 4    | -                | 3689         |
| 26,1        | 122        | 3,7 | 52,83  | BA73            | 71B           | 4    | 9436             | 4718         |
| 26,0        | 130        | 1,0 | 33,78  | BA42            | 71C/80A       | 6    | -                | 3480         |
| 25,1        | 135        | 1,6 | 35,10  | BA52            | 71C/80A       | 6    | -                | 3776         |
| 25,0        | 123        | 3,7 | 111,74 | B063            | 63C/71A       | 2    | 12000            | 4906         |
| 25,0        | 123        | 1,3 | 111,61 | BA53            | 63C/71A       | 2    | -                | 3780         |
| 23,2        | 132        | 2,5 | 120,34 | BA73            | 63C/71A       | 2    | 9819             | 4910         |
| 23,0        | 147        | 2,8 | 40,87  | BA72            | 80A           | 6    | 9845             | 4923         |
| 22,5        | 137        | 3,3 | 124,20 | B063            | 63C/71A       | 2    | 12000            | 5068         |
| 21,3        | 158        | 1,3 | 64,87  | BA52            | 71B           | 4    | -                | 3989         |
| 21,1        | 151        | 3,0 | 65,35  | BA73            | 71B           | 4    | 10000            | 5065         |
| 21,0        | 162        | 1,3 | 41,97  | BA52            | 71C/80A       | 6    | -                | 4000         |
| 20,6        | 165        | 2,2 | 45,64  | BA72            | 80A           | 6    | 10000            | 5107         |
| 20,4        | 158        | 4,0 | 43,22  | B063            | 71C           | 6    | 12000            | 5214         |
| 20,4        | 150        | 1,1 | 136,53 | BA53            | 63C/71A       | 2    | -                | 4000         |
| 20,1        | 153        | 2,9 | 139,15 | B063            | 63C/71A       | 2    | 12000            | 5247         |
| 20,0        | 159        | 3,8 | 69,16  | B063            | 71B           | 4    | 12000            | 5248         |
| 20,0        | 160        | 2,9 | 43,89  | BA73            | 71C/80A       | 6    | 10000            | 5153         |



## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,37 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 18,7        | 170        | 1,3 | 73,70  | BA53            | 71B           | 4    | -                | 4000         |
| 18,6        | 165        | 2,0 | 149,73 | BA73            | 63C/71A       | 2    | 10000            | 5280         |
| 17,8        | 179        | 3,4 | 77,48  | B063            | 71B           | 4    | 12000            | 5431         |
| 17,7        | 173        | 2,6 | 157,42 | B063            | 63C/71A       | 2    | 12000            | 5448         |
| 17,5        | 192        | 1,0 | 79,07  | BA52            | 71B           | 4    | -                | 4000         |
| 17,3        | 185        | 3,4 | 50,81  | B063            | 71C/80A       | 6    | 12000            | 5475         |
| 17,1        | 198        | 1,2 | 51,34  | BA52            | 71C/80A       | 6    | -                | 4000         |
| 17,1        | 198        | 1,9 | 54,94  | BA72            | 80A           | 6    | 10000            | 5433         |
| 17,1        | 186        | 2,4 | 80,83  | BA73            | 71B           | 4    | 10000            | 5437         |
| 16,7        | 193        | 2,5 | 52,83  | BA73            | 71C/80A       | 6    | 10000            | 5482         |
| 15,5        | 208        | 3,0 | 56,93  | B063            | 71C/80A       | 6    | 12000            | 5665         |
| 15,5        | 198        | 1,7 | 180,23 | BA73            | 63C/71A       | 2    | 10000            | 5500         |
| 15,3        | 208        | 2,9 | 90,33  | B063            | 71B           | 4    | 12000            | 5687         |
| 14,8        | 215        | 1,0 | 93,33  | BA53            | 71B           | 4    | -                | 4000         |
| 14,2        | 224        | 2,0 | 97,29  | BA73            | 71B           | 4    | 10000            | 5500         |
| 13,8        | 245        | 1,5 | 67,96  | BA72            | 80A           | 6    | 10000            | 5500         |
| 13,6        | 233        | 2,6 | 101,20 | B063            | 71B           | 4    | 12000            | 5883         |
| 13,6        | 236        | 3,8 | 69,14  | B083            | 80A           | 6    | 18000            | 9098         |
| 13,5        | 239        | 2,0 | 65,35  | BA73            | 71C/80A       | 6    | 10000            | 5500         |
| 12,9        | 250        | 3,6 | 73,14  | B083            | 80A           | 6    | 18000            | 9257         |
| 12,8        | 252        | 0,9 | 73,70  | BA53            | 80A           | 6    | -                | 4000         |
| 12,7        | 252        | 2,5 | 69,16  | B063            | 71C/80A       | 6    | 12000            | 6001         |
| 12,5        | 245        | 1,4 | 222,93 | BA73            | 63C/71A       | 2    | 10000            | 5500         |
| 12,3        | 258        | 2,3 | 111,74 | B063            | 71B           | 4    | 12000            | 6057         |
| 11,6        | 276        | 3,2 | 80,76  | B083            | 80A           | 6    | 18000            | 9545         |
| 11,5        | 277        | 1,6 | 120,34 | BA73            | 71B           | 4    | 10000            | 5500         |
| 11,4        | 283        | 2,2 | 77,48  | B063            | 71C/80A       | 6    | 12000            | 6203         |
| 11,1        | 286        | 2,1 | 124,20 | B063            | 71B           | 4    | 12000            | 6247         |
| 10,9        | 295        | 1,6 | 80,83  | BA73            | 71C/80A       | 6    | 10000            | 5500         |
| 10,7        | 286        | 1,2 | 260,20 | BA73            | 63C/71A       | 2    | 10000            | 5500         |
| 10,2        | 315        | 2,8 | 92,19  | B083            | 80A           | 6    | 18000            | 9940         |
| 9,9         | 321        | 1,9 | 139,15 | B063            | 71B           | 4    | 12000            | 6455         |
| 9,7         | 330        | 1,9 | 90,33  | B063            | 71C/80A       | 6    | 12000            | 6484         |
| 9,3         | 344        | 2,6 | 100,57 | B083            | 80A           | 6    | 18000            | 10207        |
| 9,2         | 345        | 1,3 | 149,73 | BA73            | 71B           | 4    | 10000            | 5500         |
| 9,0         | 355        | 1,3 | 97,29  | BA73            | 71C/80A       | 6    | 10000            | 5500         |
| 8,9         | 360        | 2,5 | 105,29 | B083            | 80A           | 6    | 18000            | 10350        |
| 8,8         | 363        | 1,7 | 157,42 | B063            | 71B           | 4    | 12000            | 6686         |
| 8,7         | 369        | 1,7 | 101,20 | B063            | 71C/80A       | 6    | 12000            | 6697         |
| 8,1         | 397        | 2,2 | 116,25 | B083            | 80A           | 6    | 18000            | 10664        |
| 7,9         | 408        | 1,5 | 111,74 | B063            | 71C/80A       | 6    | 12000            | 6885         |
| 7,7         | 415        | 1,1 | 180,23 | BA73            | 71B           | 4    | 10000            | 5500         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,37 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 7,4         | 433        | 2,1 | 126,76 | B083            | 80A           | 6    | 18000            | 10945        |
| 7,3         | 439        | 1,1 | 120,34 | BA73            | 71C/80A       | 6    | 10000            | 5500         |
| 7,1         | 453        | 1,4 | 124,20 | B063            | 71C/80A       | 6    | 12000            | 7090         |
| 6,5         | 495        | 1,8 | 144,77 | B083            | 80A           | 6    | 18000            | 11387        |
| 6,5         | 494        | 3,8 | 144,69 | B103            | 80A           | 6    | 22000            | 14062        |
| 6,3         | 508        | 1,2 | 139,15 | B063            | 71C/80A       | 6    | 12000            | 7313         |
| 6,3         | 512        | 0,9 | 149,73 | BA73            | 80A           | 6    | 10000            | 5500         |
| 5,7         | 565        | 3,3 | 165,25 | B103            | 80A           | 6    | 22000            | 14653        |
| 5,6         | 575        | 1,1 | 157,42 | B063            | 71C/80A       | 6    | 12000            | 7558         |

## 0,55 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------|------|------------------|--------------|
| 264,5       | 18         | 3,7 | 10,62 | BA42            | 71B           | 2    | -                | 1607         |
| 217,0       | 22         | 3,0 | 12,95 | BA42            | 71B           | 2    | -                | 1716         |
| 194,4       | 25         | 2,7 | 14,46 | BA42            | 71B           | 2    | -                | 1781         |
| 179,9       | 28         | 3,2 | 7,62  | BA42            | 71C/80A       | 4    | -                | 1827         |
| 170,6       | 28         | 3,2 | 16,47 | BA42            | 71B           | 2    | -                | 1860         |
| 129,0       | 39         | 2,3 | 10,62 | BA42            | 71C/80A       | 4    | -                | 2042         |
| 122,3       | 39         | 2,3 | 22,97 | BA42            | 71B           | 2    | -                | 2078         |
| 122,1       | 41         | 2,3 | 7,62  | BA42            | 80B           | 6    | -                | 2079         |
| 118,4       | 42         | 3,8 | 11,57 | BA52            | 71C/80A       | 4    | -                | 2251         |
| 117,5       | 43         | 3,9 | 7,91  | BA52            | 80B           | 6    | -                | 2256         |
| 112,3       | 43         | 3,5 | 25,03 | BA52            | 71B           | 2    | -                | 2291         |
| 105,8       | 47         | 1,9 | 12,95 | BA42            | 71C/80A       | 4    | -                | 2181         |
| 100,4       | 48         | 1,9 | 28,00 | BA42            | 71B           | 2    | -                | 2220         |
| 98,3        | 51         | 3,3 | 9,46  | BA52            | 80B           | 6    | -                | 2395         |
| 94,8        | 53         | 1,7 | 14,46 | BA42            | 71C/80A       | 4    | -                | 2263         |
| 93,7        | 53         | 3,0 | 14,63 | BA52            | 71C/80A       | 4    | -                | 2434         |
| 89,9        | 54         | 1,7 | 31,27 | BA42            | 71B           | 2    | -                | 2303         |
| 88,8        | 54         | 2,8 | 31,63 | BA52            | 71B           | 2    | -                | 2477         |
| 87,5        | 58         | 1,6 | 10,62 | BA42            | 80B           | 6    | -                | 2323         |
| 83,2        | 60         | 2,0 | 16,47 | BA42            | 71C/80A       | 4    | -                | 2363         |
| 83,2        | 58         | 1,6 | 33,78 | BA42            | 71B           | 2    | -                | 2363         |
| 80,4        | 63         | 2,7 | 11,57 | BA52            | 80B           | 6    | -                | 2561         |
| 80,1        | 62         | 3,2 | 17,11 | BA52            | 71C/80A       | 4    | -                | 2564         |
| 80,1        | 60         | 2,5 | 35,10 | BA52            | 71B           | 2    | -                | 2564         |
| 71,8        | 70         | 1,3 | 12,95 | BA42            | 80B           | 6    | -                | 2481         |
| 67,0        | 75         | 2,7 | 20,46 | BA52            | 71C/80A       | 4    | -                | 2722         |
| 67,0        | 72         | 2,1 | 41,97 | BA52            | 71B           | 2    | -                | 2722         |
| 64,3        | 78         | 1,2 | 14,46 | BA42            | 80B           | 6    | -                | 2574         |
| 63,6        | 79         | 2,1 | 14,63 | BA52            | 80B           | 6    | -                | 2769         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,55 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 59,6        | 81         | 1,1 | 47,12  | BA42            | 71B           | 2    | -                | 2640         |
| 59,6        | 84         | 1,4 | 22,97  | BA42            | 71C/80A       | 4    | -                | 2640         |
| 56,5        | 89         | 1,4 | 16,47  | BA42            | 80B           | 6    | -                | 2689         |
| 54,7        | 91         | 2,2 | 25,03  | BA52            | 71C/80A       | 4    | -                | 2911         |
| 54,7        | 88         | 1,9 | 51,34  | BA52            | 71B           | 2    | -                | 2911         |
| 54,4        | 93         | 2,3 | 17,11  | BA52            | 80B           | 6    | -                | 2918         |
| 53,2        | 86         | 3,9 | 52,83  | BA73            | 71B           | 2    | 7445             | 3723         |
| 48,9        | 102        | 1,2 | 28,00  | BA42            | 71C/80A       | 4    | -                | 2820         |
| 45,5        | 111        | 1,9 | 20,46  | BA52            | 80B           | 6    | -                | 3097         |
| 43,8        | 114        | 1,1 | 31,27  | BA42            | 71C/80A       | 4    | -                | 2926         |
| 43,3        | 115        | 1,7 | 31,63  | BA52            | 71C/80A       | 4    | -                | 3147         |
| 43,3        | 111        | 1,3 | 64,87  | BA52            | 71B           | 2    | -                | 3147         |
| 43,0        | 106        | 3,2 | 65,35  | BA73            | 71B           | 2    | 7992             | 3996         |
| 42,4        | 118        | 3,6 | 33,04  | BA72            | 80A           | 4    | 8031             | 4016         |
| 40,6        | 123        | 1,0 | 33,78  | BA42            | 71C/80A       | 4    | -                | 3002         |
| 40,5        | 125        | 1,0 | 22,97  | BA42            | 80B           | 6    | -                | 3004         |
| 39,0        | 128        | 1,6 | 35,10  | BA52            | 71C/80A       | 4    | -                | 3258         |
| 38,1        | 120        | 1,4 | 73,70  | BA53            | 71B           | 2    | -                | 3284         |
| 37,2        | 136        | 1,5 | 25,03  | BA52            | 80B           | 6    | -                | 3312         |
| 36,3        | 126        | 3,6 | 77,48  | B063            | 71B           | 2    | 12000            | 4315         |
| 35,5        | 136        | 1,1 | 79,07  | BA52            | 71B           | 2    | -                | 3362         |
| 34,8        | 131        | 2,6 | 80,83  | BA73            | 71B           | 2    | 8579             | 4289         |
| 34,3        | 146        | 2,7 | 40,87  | BA72            | 80A           | 4    | 8621             | 4311         |
| 33,9        | 149        | 3,0 | 27,45  | BA72            | 80B           | 6    | 8653             | 4326         |
| 32,6        | 153        | 1,3 | 41,97  | BA52            | 71C/80A       | 4    | -                | 3458         |
| 31,2        | 151        | 3,0 | 43,89  | BA73            | 71C/80A       | 4    | 8892             | 4446         |
| 31,1        | 147        | 3,1 | 90,33  | B063            | 71B           | 2    | 12000            | 4521         |
| 30,7        | 163        | 2,2 | 45,64  | BA72            | 80A           | 4    | 8944             | 4472         |
| 30,1        | 152        | 1,1 | 93,33  | BA53            | 71B           | 2    | -                | 3553         |
| 29,4        | 171        | 1,2 | 31,63  | BA52            | 80B           | 6    | -                | 3581         |
| 28,9        | 158        | 2,1 | 97,29  | BA73            | 71B           | 2    | 9125             | 4563         |
| 28,1        | 179        | 2,5 | 33,04  | BA72            | 80B           | 6    | 9204             | 4602         |
| 27,8        | 172        | 3,7 | 33,43  | B063            | 80B           | 6    | 12000            | 4666         |
| 27,8        | 164        | 2,7 | 101,20 | B063            | 71B           | 2    | 12000            | 4678         |
| 27,0        | 175        | 3,4 | 50,81  | B063            | 71C/80A       | 4    | 12000            | 4711         |
| 26,7        | 187        | 1,2 | 51,34  | BA52            | 71C/80A       | 4    | -                | 3698         |
| 26,5        | 190        | 1,1 | 35,10  | BA52            | 80B           | 6    | -                | 3707         |
| 25,9        | 182        | 2,5 | 52,83  | BA73            | 71C/80A       | 4    | 9459             | 4730         |
| 25,5        | 196        | 1,8 | 54,94  | BA72            | 80A           | 4    | 9515             | 4757         |
| 25,1        | 181        | 2,5 | 111,74 | B063            | 71B           | 2    | 12000            | 4819         |
| 24,1        | 198        | 3,2 | 38,58  | B063            | 80B           | 6    | 12000            | 4868         |
| 24,1        | 196        | 3,1 | 56,93  | B063            | 71C/80A       | 4    | 12000            | 4873         |

## 0,55 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 23,4        | 195        | 1,7 | 120,34 | BA73            | 71B           | 2    | 9796             | 4898         |
| 22,8        | 221        | 1,9 | 40,87  | BA72            | 80B           | 6    | 9880             | 4940         |
| 22,6        | 202        | 2,2 | 124,20 | B063            | 71B           | 2    | 12000            | 4972         |
| 22,2        | 227        | 0,9 | 41,97  | BA52            | 80B           | 6    | -                | 3935         |
| 22,0        | 215        | 3,9 | 63,74  | B083            | 80A           | 4    | 18000            | 7750         |
| 21,5        | 222        | 2,8 | 43,22  | B063            | 80B           | 6    | 12000            | 5033         |
| 21,2        | 225        | 2,1 | 43,89  | BA73            | 80B           | 6    | 10000            | 5059         |
| 21,0        | 225        | 2,0 | 65,35  | BA73            | 71C/80A       | 4    | 10000            | 5077         |
| 20,6        | 242        | 1,4 | 67,96  | BA72            | 80A           | 4    | 10000            | 5107         |
| 20,5        | 233        | 3,8 | 45,44  | B083            | 80B           | 6    | 18000            | 7918         |
| 20,4        | 247        | 1,5 | 45,64  | BA72            | 80B           | 6    | 10000            | 5126         |
| 20,2        | 226        | 2,0 | 139,15 | B063            | 71B           | 2    | 12000            | 5141         |
| 20,2        | 233        | 3,6 | 69,14  | B083            | 80A           | 4    | 18000            | 7947         |
| 19,8        | 239        | 2,5 | 69,16  | B063            | 71C/80A       | 4    | 12000            | 5159         |
| 19,1        | 247        | 3,4 | 73,14  | B083            | 80A           | 4    | 18000            | 8085         |
| 18,8        | 243        | 1,4 | 149,73 | BA73            | 71B           | 2    | 10000            | 5268         |
| 18,3        | 261        | 2,4 | 50,81  | B063            | 80B           | 6    | 12000            | 5274         |
| 18,2        | 263        | 3,4 | 51,19  | B083            | 80B           | 6    | 18000            | 8212         |
| 17,9        | 256        | 1,8 | 157,42 | B063            | 71B           | 2    | 12000            | 5328         |
| 17,7        | 267        | 2,2 | 77,48  | B063            | 71C/80A       | 4    | 12000            | 5331         |
| 17,6        | 271        | 1,7 | 52,83  | BA73            | 80B           | 6    | 10000            | 5382         |
| 17,3        | 273        | 3,1 | 80,76  | B083            | 80A           | 4    | 18000            | 8333         |
| 17,0        | 279        | 1,6 | 80,83  | BA73            | 71C/80A       | 4    | 10000            | 5450         |
| 16,9        | 298        | 1,2 | 54,94  | BA72            | 80B           | 6    | 10000            | 5452         |
| 16,7        | 285        | 3,1 | 55,52  | B083            | 80B           | 6    | 18000            | 8418         |
| 16,3        | 292        | 2,2 | 56,93  | B063            | 80B           | 6    | 12000            | 5448         |
| 15,6        | 293        | 1,2 | 180,23 | BA73            | 71B           | 2    | 10000            | 5500         |
| 15,5        | 308        | 2,9 | 59,96  | B083            | 80B           | 6    | 18000            | 8616         |
| 15,2        | 312        | 1,9 | 90,33  | B063            | 71C/80A       | 4    | 12000            | 5568         |
| 15,2        | 311        | 2,7 | 92,19  | B083            | 80A           | 4    | 18000            | 8675         |
| 14,6        | 327        | 2,7 | 63,74  | B083            | 80B           | 6    | 18000            | 8777         |
| 14,2        | 335        | 1,4 | 65,35  | BA73            | 80B           | 6    | 10000            | 5500         |
| 14,1        | 336        | 1,3 | 97,29  | BA73            | 71C/80A       | 4    | 10000            | 5500         |
| 13,9        | 340        | 2,5 | 100,57 | B083            | 80A           | 4    | 18000            | 8905         |
| 13,7        | 368        | 1,0 | 67,96  | BA72            | 80B           | 6    | 10000            | 5500         |
| 13,5        | 349        | 1,7 | 101,20 | B063            | 71C/80A       | 4    | 12000            | 5748         |
| 13,5        | 355        | 2,5 | 69,14  | B083            | 80B           | 6    | 18000            | 8994         |
| 13,4        | 355        | 1,8 | 69,16  | B063            | 80B           | 6    | 12000            | 5754         |
| 13,3        | 356        | 2,4 | 105,29 | B083            | 80A           | 4    | 18000            | 9029         |
| 12,7        | 376        | 2,4 | 73,14  | B083            | 80B           | 6    | 18000            | 9146         |
| 12,3        | 386        | 1,6 | 111,74 | B063            | 71C/80A       | 4    | 12000            | 5907         |
| 12,0        | 398        | 1,6 | 77,48  | B063            | 80B           | 6    | 12000            | 5936         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,55 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 12,0        | 393        | 2,2 | 116,25 | B083            | 80A           | 4    | 18000            | 9300         |
| 11,5        | 415        | 2,2 | 80,76  | B083            | 80B           | 6    | 18000            | 9419         |
| 11,5        | 415        | 1,1 | 80,83  | BA73            | 80B           | 6    | 10000            | 5500         |
| 11,4        | 415        | 1,1 | 120,34 | BA73            | 71C/80A       | 4    | 10000            | 5500         |
| 11,0        | 429        | 1,4 | 124,20 | B063            | 71C/80A       | 4    | 12000            | 6079         |
| 11,0        | 428        | 2,0 | 126,76 | B083            | 80A           | 4    | 18000            | 9541         |
| 10,3        | 464        | 1,4 | 90,33  | B063            | 80B           | 6    | 12000            | 6186         |
| 10,1        | 473        | 1,9 | 92,19  | B083            | 80B           | 6    | 18000            | 9793         |
| 10,1        | 474        | 4,0 | 92,31  | B103            | 80B           | 6    | 22000            | 12129        |
| 9,8         | 480        | 1,2 | 139,15 | B063            | 71C/80A       | 4    | 12000            | 6266         |
| 9,7         | 489        | 1,7 | 144,77 | B083            | 80A           | 4    | 18000            | 9920         |
| 9,7         | 489        | 3,7 | 144,69 | B103            | 80A           | 4    | 22000            | 12285        |
| 9,6         | 499        | 0,9 | 97,29  | BA73            | 80B           | 6    | 10000            | 5500         |
| 9,2         | 520        | 1,2 | 101,20 | B063            | 80B           | 6    | 12000            | 6373         |
| 9,2         | 516        | 1,7 | 100,57 | B083            | 80B           | 6    | 18000            | 10045        |
| 8,8         | 541        | 1,7 | 105,29 | B083            | 80B           | 6    | 18000            | 10179        |
| 8,8         | 541        | 3,5 | 105,44 | B103            | 80B           | 6    | 22000            | 12635        |
| 8,7         | 543        | 1,1 | 157,42 | B063            | 71C/80A       | 4    | 12000            | 6471         |
| 8,5         | 558        | 3,2 | 165,25 | B103            | 80A           | 4    | 22000            | 12796        |
| 8,3         | 574        | 1,1 | 111,74 | B063            | 80B           | 6    | 12000            | 6538         |
| 8,1         | 589        | 3,2 | 114,80 | B103            | 80B           | 6    | 22000            | 12968        |
| 8,0         | 597        | 1,5 | 116,25 | B083            | 80B           | 6    | 18000            | 10473        |
| 7,7         | 618        | 3,1 | 120,42 | B103            | 80B           | 6    | 22000            | 13158        |
| 7,5         | 638        | 1,0 | 124,20 | B063            | 80B           | 6    | 12000            | 6714         |
| 7,3         | 651        | 1,4 | 126,76 | B083            | 80B           | 6    | 18000            | 10734        |
| 7,0         | 682        | 2,8 | 132,87 | B103            | 80B           | 6    | 22000            | 13557        |
| 6,4         | 743        | 1,2 | 144,77 | B083            | 80B           | 6    | 18000            | 11142        |
| 6,4         | 743        | 2,5 | 144,69 | B103            | 80B           | 6    | 22000            | 13909        |
| 5,6         | 848        | 2,2 | 165,25 | B103            | 80B           | 6    | 22000            | 14473        |

## 0,75 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------|------|------------------|--------------|
| 367,6       | 18         | 3,8 | 7,62  | BA42            | 71C/80A       | 2    | -                | 1440         |
| 263,6       | 25         | 2,7 | 10,62 | BA42            | 71C/80A       | 2    | -                | 1609         |
| 216,3       | 30         | 2,2 | 12,95 | BA42            | 71C/80A       | 2    | -                | 1719         |
| 193,7       | 34         | 2,0 | 14,46 | BA42            | 71C/80A       | 2    | -                | 1783         |
| 191,4       | 34         | 3,5 | 14,63 | BA52            | 71C/80A       | 2    | -                | 1918         |
| 183,8       | 37         | 2,4 | 7,62  | BA42            | 80B           | 4    | -                | 1814         |
| 170,0       | 39         | 2,3 | 16,47 | BA42            | 71C/80A       | 2    | -                | 1862         |
| 163,6       | 40         | 3,7 | 17,11 | BA52            | 71C/80A       | 2    | -                | 2021         |
| 148,0       | 46         | 3,5 | 9,46  | BA52            | 80B           | 4    | -                | 2090         |

## 0,75 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size      | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|--------------------|------|------------------|--------------|
| 136,8       | 48         | 3,1 | 20,46 | BA52            | 71C/80A            | 2    | -                | 2145         |
| 131,8       | 52         | 1,7 | 10,62 | BA42            | 80B                | 4    | -                | 2027         |
| 121,9       | 54         | 1,7 | 22,97 | BA42            | 71C/80A            | 2    | -                | 2081         |
| 121,0       | 56         | 2,8 | 11,57 | BA52            | 80B                | 4    | -                | 2235         |
| 120,8       | 57         | 1,7 | 7,62  | BA42            | 80C                | 6    | -                | 2087         |
| 116,3       | 59         | 2,8 | 7,91  | BA52            | 80C/90S            | 6    | -                | 2264         |
| 111,9       | 59         | 2,6 | 25,03 | BA52            | 71C/80A            | 2    | -                | 2294         |
| 108,1       | 63         | 1,4 | 12,95 | BA42            | 80B                | 4    | -                | 2165         |
| 100,0       | 66         | 1,4 | 28,00 | BA42            | 71C/80A            | 2    | -                | 2222         |
| 97,2        | 71         | 2,4 | 9,46  | BA52            | 80C/90S            | 6    | -                | 2403         |
| 96,8        | 70         | 1,3 | 14,46 | BA42            | 80B                | 4    | -                | 2246         |
| 95,7        | 71         | 2,3 | 14,63 | BA52            | 80B                | 4    | -                | 2416         |
| 89,6        | 73         | 1,2 | 31,27 | BA42            | 71C/80A            | 2    | -                | 2306         |
| 88,5        | 74         | 2,0 | 31,63 | BA52            | 71C/80A            | 2    | -                | 2480         |
| 86,6        | 79         | 1,2 | 10,62 | BA42            | 80C                | 6    | -                | 2332         |
| 85,0        | 80         | 1,5 | 16,47 | BA42            | 80B                | 4    | -                | 2346         |
| 82,9        | 79         | 1,1 | 33,78 | BA42            | 71C/80A            | 2    | -                | 2366         |
| 81,8        | 83         | 2,4 | 17,11 | BA52            | 80B                | 4    | -                | 2546         |
| 79,8        | 82         | 1,8 | 35,10 | BA52            | 71C/80A            | 2    | -                | 2567         |
| 79,5        | 86         | 1,9 | 11,57 | BA52            | 80C/90S            | 6    | -                | 2570         |
| 73,9        | 93         | 4,0 | 12,44 | BA72            | 90S                | 6    | 6671             | 3335         |
| 71,1        | 97         | 1,0 | 12,95 | BA42            | 80C                | 6    | -                | 2490         |
| 68,8        | 96         | 3,1 | 40,87 | BA72            | 80A                | 2    | 6834             | 3417         |
| 68,4        | 99         | 2,0 | 20,46 | BA52            | 80B                | 4    | -                | 2702         |
| 66,7        | 98         | 1,5 | 41,97 | BA52            | 71C/80A            | 2    | -                | 2725         |
| 63,8        | 98         | 3,5 | 43,89 | BA73            | 71C/80A            | 2    | 7007             | 3504         |
| 62,9        | 109        | 1,5 | 14,63 | BA52            | 80C/90S            | 6    | -                | 2779         |
| 61,7        | 111        | 4,0 | 14,91 | BA72            | 90S                | 6    | 7085             | 3542         |
| 61,6        | 107        | 2,5 | 45,64 | BA72            | 80A                | 2    | 7091             | 3545         |
| 60,9        | 112        | 1,1 | 22,97 | BA42            | 80B                | 4    | -                | 2621         |
| 55,9        | 123        | 1,0 | 16,47 | BA42            | 80C                | 6    | -                | 2698         |
| 55,9        | 122        | 1,6 | 25,03 | BA52            | 80B                | 4    | -                | 2890         |
| 55,1        | 113        | 4,0 | 50,81 | BO63            | 71C <sup>(1)</sup> | 2    | 12000            | 3754         |
| 54,5        | 120        | 1,4 | 51,34 | BA52            | 71C/80A            | 2    | -                | 2914         |
| 53,8        | 128        | 1,6 | 17,11 | BA52            | 80C/90S            | 6    | -                | 2928         |
| 53,0        | 117        | 2,9 | 52,83 | BA73            | 71C/80A            | 2    | 7454             | 3727         |
| 51,3        | 134        | 3,3 | 17,94 | BA72            | 90S                | 6    | 7537             | 3768         |
| 51,1        | 133        | 0,9 | 28,00 | BA42            | 80B                | 4    | -                | 2780         |
| 51,1        | 128        | 2,0 | 54,94 | BA72            | 80A                | 2    | 7543             | 3771         |
| 51,0        | 133        | 3,1 | 27,45 | BA72            | 80B                | 4    | 7550             | 3775         |
| 49,2        | 126        | 3,6 | 56,93 | BO63            | 71C/80A            | 2    | 12000            | 3886         |
| 45,0        | 153        | 1,4 | 20,46 | BA52            | 80C/90S            | 6    | -                | 3108         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,75 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 44,3        | 154        | 1,3 | 31,63  | BA52            | 80B           | 4    | -                | 3124         |
| 43,8        | 150        | 1,0 | 64,87  | BA52            | 80A           | 2    | -                | 3136         |
| 42,8        | 145        | 2,3 | 65,35  | BA73            | 71C/80A       | 2    | 8001             | 4001         |
| 42,4        | 161        | 2,6 | 33,04  | BA72            | 80B           | 4    | 8031             | 4016         |
| 41,9        | 154        | 3,9 | 33,43  | B063            | 80B           | 4    | 12000            | 4071         |
| 41,5        | 166        | 2,7 | 22,19  | BA72            | 90S           | 6    | 8090             | 4045         |
| 41,3        | 159        | 1,7 | 67,96  | BA72            | 80A           | 2    | 8097             | 4048         |
| 41,1        | 158        | 4,0 | 22,39  | B063            | 80C/90S       | 6    | 12000            | 4093         |
| 40,5        | 154        | 2,9 | 69,16  | B063            | 71C/80A       | 2    | 12000            | 4120         |
| 39,9        | 171        | 1,2 | 35,10  | BA52            | 80B           | 4    | -                | 3235         |
| 38,4        | 162        | 3,9 | 73,14  | B083            | 80A           | 2    | 18000            | 6464         |
| 38,0        | 164        | 1,0 | 73,70  | BA53            | 71C/80A       | 2    | -                | 3288         |
| 36,8        | 187        | 1,1 | 25,03  | BA52            | 80C/90S       | 6    | -                | 3324         |
| 36,3        | 178        | 3,4 | 38,58  | B063            | 80B           | 4    | 12000            | 4247         |
| 36,1        | 172        | 2,6 | 77,48  | B063            | 71C/80A       | 2    | 12000            | 4261         |
| 35,3        | 185        | 3,4 | 26,09  | B063            | 80C/90S       | 6    | 12000            | 4281         |
| 34,8        | 179        | 3,6 | 80,76  | B083            | 80A           | 2    | 18000            | 6666         |
| 34,6        | 180        | 1,9 | 80,83  | BA73            | 71C/80A       | 2    | 8589             | 4294         |
| 34,3        | 199        | 2,0 | 40,87  | BA72            | 80B           | 4    | 8621             | 4311         |
| 33,5        | 205        | 2,2 | 27,45  | BA72            | 80C/90S       | 6    | 8684             | 4342         |
| 33,4        | 204        | 1,0 | 41,97  | BA52            | 80B           | 4    | -                | 3433         |
| 32,8        | 198        | 3,2 | 28,03  | B063            | 80C/90S       | 6    | 12000            | 4372         |
| 32,4        | 199        | 3,0 | 43,22  | B063            | 80B           | 4    | 12000            | 4391         |
| 31,9        | 202        | 2,2 | 43,89  | BA73            | 80B           | 4    | 8828             | 4414         |
| 31,0        | 201        | 2,2 | 90,33  | B063            | 71C/80A       | 2    | 12000            | 4457         |
| 30,7        | 222        | 1,6 | 45,64  | BA72            | 80B           | 4    | 8944             | 4472         |
| 30,5        | 204        | 3,1 | 92,19  | B083            | 80A           | 2    | 18000            | 6943         |
| 29,7        | 231        | 0,9 | 31,63  | BA52            | 90S           | 6    | -                | 3568         |
| 28,9        | 225        | 4,0 | 31,80  | B083            | 80C/90S       | 6    | 18000            | 7043         |
| 28,8        | 216        | 1,6 | 97,29  | BA73            | 71C/80A       | 2    | 9136             | 4568         |
| 27,9        | 223        | 2,9 | 100,57 | B083            | 80A           | 2    | 18000            | 7131         |
| 27,9        | 244        | 0,9 | 51,34  | BA52            | 80B           | 4    | -                | 3646         |
| 27,8        | 247        | 1,8 | 33,04  | BA72            | 80C/90S       | 6    | 9238             | 4619         |
| 27,7        | 225        | 2,0 | 101,20 | B063            | 71C/80A       | 2    | 12000            | 4606         |
| 27,6        | 234        | 2,6 | 50,81  | B063            | 80B           | 4    | 12000            | 4601         |
| 27,5        | 237        | 2,7 | 33,43  | B063            | 80C/90S       | 6    | 12000            | 4599         |
| 27,4        | 236        | 3,6 | 51,19  | B083            | 80B           | 4    | 18000            | 7168         |
| 26,7        | 244        | 3,7 | 34,49  | B083            | 80C/90S       | 6    | 18000            | 7220         |
| 26,7        | 233        | 2,7 | 105,29 | B083            | 80A           | 2    | 18000            | 7231         |
| 26,5        | 243        | 1,8 | 52,83  | BA73            | 80B           | 4    | 9391             | 4696         |
| 25,5        | 267        | 1,3 | 54,94  | BA72            | 80B           | 4    | 9515             | 4757         |
| 25,2        | 256        | 3,3 | 55,52  | B083            | 80B           | 4    | 18000            | 7347         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,75 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor   |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|---------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size    | Pole |                              |                          |
| 25,1                    | 248                    | 1,8            | 111,74 | B063            | 71C/80A | 2    | 12000                        | 4738                     |
| 24,6                    | 262                    | 2,3            | 56,93  | B063            | 80B     | 4    | 12000                        | 4752                     |
| 24,2                    | 257                    | 2,5            | 116,25 | B083            | 80A     | 2    | 18000                        | 7453                     |
| 23,8                    | 273                    | 2,3            | 38,58  | B063            | 80C/90S | 6    | 12000                        | 4790                     |
| 23,4                    | 276                    | 3,1            | 59,96  | B083            | 80B     | 4    | 18000                        | 7520                     |
| 23,3                    | 267                    | 1,3            | 120,34 | BA73            | 71C/80A | 2    | 9807                         | 4904                     |
| 23,2                    | 280                    | 3,2            | 39,60  | B083            | 80C/90S | 6    | 18000                        | 7528                     |
| 22,5                    | 276                    | 1,6            | 124,20 | B063            | 71C/80A | 2    | 12000                        | 4882                     |
| 22,5                    | 305                    | 1,4            | 40,87  | BA72            | 80C/90S | 6    | 9916                         | 4958                     |
| 22,2                    | 281                    | 2,3            | 126,76 | B083            | 80A     | 2    | 18000                        | 7650                     |
| 22,0                    | 293                    | 2,9            | 63,74  | B083            | 80B     | 4    | 18000                        | 7660                     |
| 21,4                    | 304                    | 2,9            | 42,95  | B083            | 80C/90S | 6    | 18000                        | 7714                     |
| 21,4                    | 301                    | 1,5            | 65,35  | BA73            | 80B     | 4    | 10000                        | 5041                     |
| 21,3                    | 306                    | 2,1            | 43,22  | B063            | 80C/90S | 6    | 12000                        | 4944                     |
| 21,0                    | 311                    | 1,5            | 43,89  | BA73            | 80C/90S | 6    | 10000                        | 5077                     |
| 20,6                    | 330                    | 1,1            | 67,96  | BA72            | 80B     | 4    | 10000                        | 5107                     |
| 20,2                    | 318                    | 1,9            | 69,16  | B063            | 80B     | 4    | 12000                        | 5017                     |
| 20,2                    | 322                    | 2,8            | 45,44  | B083            | 80C/90S | 6    | 18000                        | 7845                     |
| 20,2                    | 318                    | 2,7            | 69,14  | B083            | 80B     | 4    | 18000                        | 7848                     |
| 20,2                    | 341                    | 1,1            | 45,64  | BA72            | 80C/90S | 6    | 10000                        | 5144                     |
| 20,1                    | 309                    | 1,5            | 139,15 | B063            | 71C/80A | 2    | 12000                        | 5040                     |
| 19,4                    | 320                    | 2,0            | 144,77 | B083            | 80A     | 2    | 18000                        | 7961                     |
| 19,1                    | 337                    | 2,5            | 73,14  | B083            | 80B     | 4    | 18000                        | 7981                     |
| 18,7                    | 333                    | 1,0            | 149,73 | BA73            | 71C/80A | 2    | 10000                        | 5274                     |
| 18,1                    | 360                    | 1,8            | 50,81  | B063            | 80C/90S | 6    | 12000                        | 5167                     |
| 18,1                    | 357                    | 1,7            | 77,48  | B063            | 80B     | 4    | 12000                        | 5175                     |
| 18,0                    | 362                    | 2,5            | 51,19  | B083            | 80C/90S | 6    | 18000                        | 8127                     |
| 17,8                    | 350                    | 1,3            | 157,42 | B063            | 71C/80A | 2    | 12000                        | 5213                     |
| 17,4                    | 374                    | 1,3            | 52,83  | BA73            | 80C/90S | 6    | 10000                        | 5401                     |
| 17,3                    | 372                    | 2,3            | 80,76  | B083            | 80B     | 4    | 18000                        | 8219                     |
| 17,3                    | 372                    | 1,2            | 80,83  | BA73            | 80B     | 4    | 10000                        | 5411                     |
| 17,1                    | 402                    | 0,9            | 54,94  | BA72            | 90S     | 6    | 10000                        | 5433                     |
| 17,0                    | 366                    | 3,7            | 165,25 | B103            | 80A     | 2    | 22000                        | 10232                    |
| 16,6                    | 393                    | 2,3            | 55,52  | B083            | 80C/90S | 6    | 18000                        | 8324                     |
| 16,2                    | 403                    | 1,6            | 56,93  | B063            | 80C/90S | 6    | 12000                        | 5327                     |
| 15,5                    | 416                    | 1,4            | 90,33  | B063            | 80B     | 4    | 12000                        | 5391                     |
| 15,3                    | 424                    | 2,1            | 59,96  | B083            | 80C/90S | 6    | 18000                        | 8513                     |
| 15,2                    | 424                    | 2,0            | 92,19  | B083            | 80B     | 4    | 18000                        | 8544                     |
| 14,4                    | 451                    | 2,0            | 63,74  | B083            | 80C/90S | 6    | 18000                        | 8666                     |
| 14,4                    | 448                    | 1,0            | 97,29  | BA73            | 80B     | 4    | 10000                        | 5500                     |
| 14,2                    | 459                    | 3,9            | 64,89  | B103            | 80C/90S | 6    | 22000                        | 10806                    |
| 14,1                    | 462                    | 1,0            | 65,35  | BA73            | 80C/90S | 6    | 10000                        | 5500                     |



## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,75 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 13,9        | 463        | 1,8 | 100,57 | B083            | 80B           | 4    | 18000            | 8763         |
| 13,8        | 466        | 1,3 | 101,20 | B063            | 80B           | 4    | 12000            | 5553         |
| 13,4        | 485        | 3,7 | 68,58  | B103            | 80C/90S       | 6    | 22000            | 10991        |
| 13,3        | 489        | 1,3 | 69,16  | B063            | 80C/90S       | 6    | 12000            | 5603         |
| 13,3        | 489        | 1,8 | 69,14  | B083            | 80C/90S       | 6    | 18000            | 8872         |
| 13,3        | 485        | 1,8 | 105,29 | B083            | 80B           | 4    | 18000            | 8879         |
| 13,3        | 486        | 3,7 | 105,44 | B103            | 80B           | 4    | 22000            | 11030        |
| 12,6        | 518        | 1,7 | 73,14  | B083            | 80C/90S       | 6    | 18000            | 9016         |
| 12,6        | 515        | 3,5 | 72,76  | B103            | 80C/90S       | 6    | 22000            | 11191        |
| 12,5        | 515        | 1,2 | 111,74 | B063            | 80B           | 4    | 12000            | 5695         |
| 12,2        | 529        | 3,4 | 114,80 | B103            | 80B           | 4    | 22000            | 11319        |
| 12,0        | 535        | 1,6 | 116,25 | B083            | 80B           | 4    | 18000            | 9135         |
| 11,9        | 548        | 1,1 | 77,48  | B063            | 80C/90S       | 6    | 12000            | 5765         |
| 11,7        | 559        | 3,2 | 78,92  | B103            | 80C/90S       | 6    | 22000            | 11471        |
| 11,6        | 554        | 3,2 | 120,42 | B103            | 80B           | 4    | 22000            | 11485        |
| 11,4        | 572        | 1,6 | 80,76  | B083            | 80C/90S       | 6    | 18000            | 9273         |
| 11,3        | 572        | 1,0 | 124,20 | B063            | 80B           | 4    | 12000            | 5847         |
| 11,0        | 584        | 1,5 | 126,76 | B083            | 80B           | 4    | 18000            | 9361         |
| 11,0        | 592        | 3,2 | 83,66  | B103            | 80C/90S       | 6    | 22000            | 11675        |
| 10,5        | 612        | 2,9 | 132,87 | B103            | 80B           | 4    | 22000            | 11832        |
| 10,2        | 639        | 1,0 | 90,33  | B063            | 80C           | 6    | 12000            | 5984         |
| 10,1        | 641        | 0,9 | 139,15 | B063            | 80B           | 4    | 12000            | 6010         |
| 10,0        | 652        | 1,4 | 92,19  | B083            | 80C/90S       | 6    | 18000            | 9623         |
| 10,0        | 653        | 2,9 | 92,31  | B103            | 80C/90S       | 6    | 22000            | 12026        |
| 9,7         | 667        | 1,3 | 144,77 | B083            | 80B           | 4    | 18000            | 9715         |
| 9,7         | 666        | 2,7 | 144,69 | B103            | 80B           | 4    | 22000            | 12139        |
| 9,1         | 712        | 1,3 | 100,57 | B083            | 80C/90S       | 6    | 18000            | 9857         |
| 8,7         | 745        | 1,2 | 105,29 | B083            | 80C/90S       | 6    | 18000            | 9981         |
| 8,7         | 746        | 2,5 | 105,44 | B103            | 80C/90S       | 6    | 22000            | 12514        |
| 8,5         | 761        | 2,4 | 165,25 | B103            | 80B           | 4    | 22000            | 12630        |
| 8,0         | 812        | 2,3 | 114,80 | B103            | 80C/90S       | 6    | 22000            | 12833        |
| 7,9         | 823        | 1,1 | 116,25 | B083            | 80C/90S       | 6    | 18000            | 10252        |
| 7,6         | 852        | 2,2 | 120,42 | B103            | 80C/90S       | 6    | 22000            | 13015        |
| 7,3         | 897        | 1,0 | 126,76 | B083            | 80C/90S       | 6    | 18000            | 10490        |
| 7,1         | 920        | 4,0 | 129,96 | B123            | 90S           | 6    | 30000            | 18750        |
| 6,9         | 940        | 2,0 | 132,87 | B103            | 80C/90S       | 6    | 22000            | 13395        |
| 6,4         | 1024       | 1,8 | 144,69 | B103            | 80C/90S       | 6    | 22000            | 13730        |
| 6,4         | 1022       | 3,6 | 144,43 | B123            | 90S           | 6    | 30000            | 19323        |
| 5,7         | 1134       | 3,2 | 160,23 | B123            | 90S           | 6    | 30000            | 19897        |
| 5,6         | 1169       | 1,6 | 165,25 | B103            | 80C/90S       | 6    | 22000            | 14264        |
| 5,1         | 1277       | 2,9 | 180,40 | B123            | 90S           | 6    | 30000            | 20000        |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,92 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Size               | Motor<br>Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|--------------------|---------------|------------------|--------------|
| 183,8       | 45         | 2,0 | 7,62  | BA42            | 80C <sup>(1)</sup> | 4             | -                | 1814         |
| 176,9       | 47         | 3,4 | 7,91  | BA52            | 80C <sup>(1)</sup> | 4             | -                | 1969         |
| 148,0       | 56         | 2,8 | 9,46  | BA52            | 80C <sup>(1)</sup> | 4             | -                | 2090         |
| 131,8       | 63         | 1,4 | 10,62 | BA42            | 80C <sup>(1)</sup> | 4             | -                | 2027         |
| 121,0       | 69         | 2,3 | 11,57 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 2235         |
| 108,1       | 77         | 1,2 | 12,95 | BA42            | 80C <sup>(1)</sup> | 4             | -                | 2165         |
| 96,8        | 86         | 1,0 | 14,46 | BA42            | 80C <sup>(1)</sup> | 4             | -                | 2246         |
| 95,7        | 87         | 1,8 | 14,63 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 2416         |
| 85,0        | 98         | 1,2 | 16,47 | BA42            | 80C <sup>(1)</sup> | 4             | -                | 2346         |
| 81,8        | 102        | 2,0 | 17,11 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 2546         |
| 68,4        | 122        | 1,6 | 20,46 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 2702         |
| 55,9        | 149        | 1,3 | 25,03 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 2890         |
| 51,0        | 164        | 2,6 | 27,45 | BA72            | 80C <sup>(1)</sup> | 4             | 7550             | 3775         |
| 49,9        | 158        | 3,8 | 28,03 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 3825         |
| 44,3        | 189        | 1,1 | 31,63 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 3124         |
| 42,4        | 197        | 2,1 | 33,04 | BA72            | 80C <sup>(1)</sup> | 4             | 8031             | 4016         |
| 41,9        | 189        | 3,2 | 33,43 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 4026         |
| 39,9        | 209        | 1,0 | 35,10 | BA52            | 80C <sup>(1)</sup> | 4             | -                | 3235         |
| 36,3        | 218        | 2,8 | 38,58 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 4195         |
| 35,4        | 224        | 3,8 | 39,60 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 6577         |
| 34,3        | 244        | 1,6 | 40,87 | BA72            | 80C <sup>(1)</sup> | 4             | 8621             | 4311         |
| 32,6        | 243        | 3,5 | 42,95 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 6741         |
| 32,4        | 244        | 2,5 | 43,22 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 4333         |
| 31,9        | 248        | 1,8 | 43,89 | BA73            | 80C <sup>(1)</sup> | 4             | 8828             | 4414         |
| 30,8        | 257        | 3,3 | 45,44 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 6857         |
| 30,7        | 272        | 1,3 | 45,64 | BA72            | 80C <sup>(1)</sup> | 4             | 8944             | 4472         |
| 27,6        | 287        | 2,1 | 50,81 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 4532         |
| 27,4        | 289        | 2,9 | 51,19 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 7106         |
| 26,5        | 298        | 1,5 | 52,83 | BA73            | 80C <sup>(1)</sup> | 4             | 9391             | 4696         |
| 25,5        | 328        | 1,1 | 54,94 | BA72            | 80C <sup>(1)</sup> | 4             | 9515             | 4757         |
| 25,2        | 314        | 2,7 | 55,52 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 7280         |
| 24,6        | 322        | 1,9 | 56,93 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 4675         |
| 23,4        | 339        | 2,5 | 59,96 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 7447         |
| 22,0        | 360        | 2,4 | 63,74 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 7583         |
| 21,4        | 369        | 1,2 | 65,35 | BA73            | 80C <sup>(1)</sup> | 4             | 10000            | 5041         |
| 20,2        | 391        | 1,5 | 69,16 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 4924         |
| 20,2        | 391        | 2,2 | 69,14 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 7765         |
| 19,1        | 413        | 2,1 | 73,14 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 7893         |
| 18,1        | 438        | 1,4 | 77,48 | B063            | 80C <sup>(1)</sup> | 4             | 12000            | 5071         |
| 17,7        | 446        | 3,8 | 78,92 | B103            | 80C <sup>(1)</sup> | 4             | 22000            | 10020        |
| 17,3        | 456        | 1,9 | 80,76 | B083            | 80C <sup>(1)</sup> | 4             | 18000            | 8121         |
| 17,3        | 457        | 1,0 | 80,83 | BA73            | 80C <sup>(1)</sup> | 4             | 10000            | 5411         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5.1 B/BA GEARED MOTORS (50Hz)

## 0,92 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size         | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|--------------------|------|---------------|-----------|
| 16,7     | 473     | 3,8 | 83,66  | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 10200     |
| 15,5     | 510     | 1,2 | 90,33  | B063         | 80C <sup>(1)</sup> | 4    | 12000         | 5270      |
| 15,2     | 521     | 1,6 | 92,19  | B083         | 80C <sup>(1)</sup> | 4    | 18000         | 8433      |
| 15,2     | 521     | 3,5 | 92,31  | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 10509     |
| 13,9     | 568     | 1,5 | 100,57 | B083         | 80C <sup>(1)</sup> | 4    | 18000         | 8641      |
| 13,8     | 572     | 1,0 | 101,20 | B063         | 80C <sup>(1)</sup> | 4    | 12000         | 5417      |
| 13,3     | 595     | 1,4 | 105,29 | B083         | 80C <sup>(1)</sup> | 4    | 18000         | 8752      |
| 13,3     | 596     | 3,0 | 105,44 | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 10939     |
| 12,5     | 631     | 1,0 | 111,74 | B063         | 80C <sup>(1)</sup> | 4    | 12000         | 5545      |
| 12,2     | 648     | 2,8 | 114,80 | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 11221     |
| 12,0     | 657     | 1,3 | 116,25 | B083         | 80C <sup>(1)</sup> | 4    | 18000         | 8994      |
| 11,6     | 680     | 2,6 | 120,42 | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 11382     |
| 11,0     | 716     | 1,2 | 126,76 | B083         | 80C <sup>(1)</sup> | 4    | 18000         | 9208      |
| 10,5     | 750     | 2,4 | 132,87 | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 11718     |
| 9,7      | 818     | 1,0 | 144,77 | B083         | 80C <sup>(1)</sup> | 4    | 18000         | 9540      |
| 9,7      | 817     | 2,2 | 144,69 | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 12015     |
| 8,5      | 933     | 1,9 | 165,25 | B103         | 80C <sup>(1)</sup> | 4    | 22000         | 12488     |

## 1,10 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size         | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|--------------------|------|---------------|-----------|
| 372,9    | 26      | 2,6 | 7,62  | BA42         | 80B                | 2    | -             | 1433      |
| 300,2    | 32      | 3,7 | 9,46  | BA52         | 80B                | 2    | -             | 1651      |
| 267,3    | 36      | 1,9 | 10,62 | BA42         | 80B                | 2    | -             | 1601      |
| 245,4    | 39      | 3,1 | 11,57 | BA52         | 80B                | 2    | -             | 1765      |
| 219,3    | 44      | 1,5 | 12,95 | BA42         | 80B                | 2    | -             | 1710      |
| 196,4    | 49      | 1,4 | 14,46 | BA42         | 80B                | 2    | -             | 1775      |
| 194,2    | 50      | 2,4 | 14,63 | BA52         | 80B                | 2    | -             | 1909      |
| 185,1    | 54      | 1,7 | 7,62  | BA42         | 80D <sup>(1)</sup> | 4    | -             | 1810      |
| 178,2    | 56      | 2,9 | 7,91  | BA52         | 80D/90S            | 4    | -             | 1964      |
| 172,4    | 56      | 1,6 | 16,47 | BA42         | 80B                | 2    | -             | 1853      |
| 166,0    | 58      | 2,6 | 17,11 | BA52         | 80B                | 2    | -             | 2011      |
| 149,0    | 67      | 2,4 | 9,46  | BA52         | 80D/90S            | 4    | -             | 2085      |
| 138,3    | 70      | 2,2 | 20,46 | BA52         | 80B                | 2    | -             | 2137      |
| 132,7    | 75      | 1,2 | 10,62 | BA42         | 80D <sup>(1)</sup> | 4    | -             | 2022      |
| 123,6    | 78      | 1,2 | 22,97 | BA42         | 80B                | 2    | -             | 2071      |
| 121,0    | 83      | 1,9 | 11,57 | BA52         | 80D/90S            | 4    | -             | 2235      |
| 117,5    | 86      | 2,0 | 7,91  | BA52         | 90L                | 6    | -             | 2256      |
| 113,5    | 85      | 1,8 | 25,03 | BA52         | 80B                | 2    | -             | 2283      |
| 112,5    | 89      | 3,9 | 12,44 | BA72         | 90S <sup>(1)</sup> | 4    | 5800          | 2900      |
| 108,9    | 92      | 1,0 | 12,95 | BA42         | 80D <sup>(1)</sup> | 4    | -             | 2160      |
| 103,5    | 93      | 3,4 | 27,45 | BA72         | 80B                | 2    | 5964          | 2982      |

<sup>(1)</sup> Available only with brake motor (TBS)

## 1,10 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size      | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|--------------------|------|------------------|--------------|
| 98,3        | 103        | 1,6 | 9,46  | BA52            | 90L                | 6    | -                | 2395         |
| 96,4        | 104        | 1,5 | 14,63 | BA52            | 80D/90S            | 4    | -                | 2410         |
| 93,9        | 106        | 4,0 | 14,91 | BA72            | 90S <sup>(1)</sup> | 4    | 6160             | 3080         |
| 92,4        | 109        | 3,4 | 10,06 | BA72            | 90L/100LR          | 6    | 6192             | 3096         |
| 89,5        | 108        | 1,4 | 31,63 | BA52            | 80B                | 2    | -                | 2471         |
| 86,0        | 112        | 2,8 | 33,04 | BA72            | 80B                | 2    | 6344             | 3172         |
| 85,6        | 117        | 1,0 | 16,47 | BA42            | 80D <sup>(1)</sup> | 4    | -                | 2341         |
| 81,8        | 122        | 1,6 | 17,11 | BA52            | 80D/90S            | 4    | -                | 2546         |
| 80,9        | 119        | 1,3 | 35,10 | BA52            | 80B                | 2    | -                | 2555         |
| 80,4        | 125        | 1,3 | 11,57 | BA52            | 90L                | 6    | -                | 2561         |
| 78,0        | 128        | 3,3 | 17,94 | BA72            | 90S                | 4    | 6552             | 3276         |
| 74,7        | 135        | 2,7 | 12,44 | BA72            | 90L/100LR          | 6    | 6647             | 3323         |
| 73,6        | 124        | 3,6 | 38,58 | B063            | 80B                | 2    | 11847            | 3385         |
| 69,5        | 139        | 2,2 | 40,87 | BA72            | 80B                | 2    | 6810             | 3405         |
| 68,4        | 146        | 1,4 | 20,46 | BA52            | 80D/90S            | 4    | -                | 2702         |
| 67,4        | 143        | 1,1 | 41,97 | BA52            | 80B                | 2    | -                | 2715         |
| 65,7        | 139        | 3,2 | 43,22 | B063            | 80B                | 2    | 12000            | 3501         |
| 64,7        | 141        | 2,4 | 43,89 | BA73            | 80B                | 2    | 6974             | 3487         |
| 63,6        | 159        | 1,1 | 14,63 | BA52            | 90L                | 6    | -                | 2769         |
| 63,1        | 158        | 2,7 | 22,19 | BA72            | 90S                | 4    | 7033             | 3517         |
| 62,5        | 151        | 4,0 | 22,39 | B063            | 80D/90S            | 4    | 12000            | 3546         |
| 62,4        | 162        | 2,7 | 14,91 | BA72            | 90L/100LR          | 6    | 7059             | 3530         |
| 62,2        | 155        | 1,7 | 45,64 | BA72            | 80B                | 2    | 7066             | 3533         |
| 61,3        | 156        | 4,0 | 15,18 | B063            | 90L                | 6    | 12000            | 3565         |
| 55,9        | 178        | 1,1 | 25,03 | BA52            | 80D/90S            | 4    | -                | 2890         |
| 55,7        | 164        | 2,7 | 50,81 | B063            | 80B                | 2    | 12000            | 3675         |
| 55,3        | 165        | 3,9 | 51,19 | B083            | 80B                | 2    | 18000            | 5707         |
| 54,7        | 175        | 3,6 | 17,00 | B063            | 90L/100LR          | 6    | 12000            | 3685         |
| 54,4        | 185        | 1,1 | 17,11 | BA52            | 90L                | 6    | -                | 2918         |
| 53,8        | 170        | 2,0 | 52,83 | BA73            | 80B                | 2    | 7419             | 3709         |
| 53,7        | 176        | 3,4 | 26,09 | B063            | 80D/90S            | 4    | 12000            | 3707         |
| 51,8        | 194        | 2,3 | 17,94 | BA72            | 90L/100LR          | 6    | 7509             | 3755         |
| 51,5        | 187        | 1,4 | 54,94 | BA72            | 80B                | 2    | 7525             | 3762         |
| 51,0        | 179        | 3,6 | 55,52 | B083            | 80B                | 2    | 18000            | 5852         |
| 51,0        | 196        | 2,1 | 27,45 | BA72            | 80D/90S            | 4    | 7550             | 3775         |
| 49,9        | 189        | 3,2 | 28,03 | B063            | 80D/90S            | 4    | 12000            | 3785         |
| 49,7        | 184        | 2,5 | 56,93 | B063            | 80B                | 2    | 12000            | 3798         |
| 47,4        | 193        | 3,3 | 59,96 | B083            | 80B                | 2    | 18000            | 5984         |
| 45,5        | 222        | 0,9 | 20,46 | BA52            | 90L                | 6    | -                | 3097         |
| 45,2        | 221        | 0,9 | 31,63 | BA52            | 90S                | 4    | -                | 3102         |
| 44,6        | 205        | 3,1 | 63,74 | B083            | 80B                | 2    | 18000            | 6097         |
| 44,0        | 215        | 4,0 | 31,80 | B083            | 80D/90S            | 4    | 18000            | 6110         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5.1 B/BA GEARED MOTORS (50Hz)

## 1,10 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 43,3        | 211        | 1,6 | 65,35  | BA73            | 80B           | 2    | 7973             | 3986         |
| 42,4        | 236        | 1,8 | 33,04  | BA72            | 80D/90S       | 4    | 8031             | 4016         |
| 41,9        | 226        | 2,7 | 33,43  | B063            | 80D/90S       | 4    | 12000            | 3979         |
| 41,9        | 241        | 1,8 | 22,19  | BA72            | 90L/100LR     | 6    | 8061             | 4030         |
| 41,6        | 231        | 1,1 | 67,96  | BA72            | 80B           | 2    | 8078             | 4039         |
| 41,5        | 230        | 2,7 | 22,39  | B063            | 90L/100LR     | 6    | 12000            | 3985         |
| 40,9        | 223        | 2,0 | 69,16  | B063            | 80B           | 2    | 12000            | 4015         |
| 40,9        | 223        | 2,9 | 69,14  | B083            | 80B           | 2    | 18000            | 6256         |
| 40,8        | 234        | 3,8 | 22,82  | B083            | 90L/100LR     | 6    | 18000            | 6252         |
| 40,6        | 233        | 3,6 | 34,49  | B083            | 80D/90S       | 4    | 18000            | 6262         |
| 38,7        | 236        | 2,7 | 73,14  | B083            | 80B           | 2    | 18000            | 6363         |
| 36,5        | 250        | 1,8 | 77,48  | B063            | 80B           | 2    | 12000            | 4145         |
| 36,3        | 261        | 2,3 | 38,58  | B063            | 80D/90S       | 4    | 12000            | 4141         |
| 35,6        | 268        | 2,4 | 26,09  | B063            | 90L/100LR     | 6    | 12000            | 4158         |
| 35,4        | 267        | 3,2 | 39,60  | B083            | 80D/90S       | 4    | 18000            | 6527         |
| 35,0        | 260        | 2,4 | 80,76  | B083            | 80B           | 2    | 18000            | 6555         |
| 35,0        | 261        | 1,3 | 80,83  | BA73            | 80B           | 2    | 8558             | 4279         |
| 34,8        | 274        | 3,3 | 26,71  | B083            | 90L/100LR     | 6    | 18000            | 6554         |
| 34,3        | 291        | 1,4 | 40,87  | BA72            | 80D/90S       | 4    | 8621             | 4311         |
| 33,9        | 298        | 1,5 | 27,45  | BA72            | 90L/100LR     | 6    | 8653             | 4326         |
| 33,2        | 288        | 2,2 | 28,03  | B063            | 90L/100LR     | 6    | 12000            | 4240         |
| 32,6        | 290        | 2,9 | 42,95  | B083            | 80D/90S       | 4    | 18000            | 6687         |
| 32,4        | 292        | 2,1 | 43,22  | B063            | 80D/90S       | 4    | 12000            | 4271         |
| 31,9        | 296        | 1,5 | 43,89  | BA73            | 80D/90S       | 4    | 8828             | 4414         |
| 31,5        | 303        | 2,9 | 29,50  | B083            | 90L/100LR     | 6    | 18000            | 6749         |
| 31,3        | 291        | 1,5 | 90,33  | B063            | 80B           | 2    | 12000            | 4323         |
| 30,8        | 307        | 2,8 | 45,44  | B083            | 80D/90S       | 4    | 18000            | 6799         |
| 30,7        | 297        | 2,1 | 92,19  | B083            | 80B           | 2    | 18000            | 6819         |
| 30,7        | 325        | 1,1 | 45,64  | BA72            | 80D/90S       | 4    | 8944             | 4472         |
| 29,2        | 326        | 2,7 | 31,80  | B083            | 90L/100LR     | 6    | 18000            | 6900         |
| 29,1        | 314        | 1,1 | 97,29  | BA73            | 80B           | 2    | 9104             | 4552         |
| 28,1        | 324        | 2,0 | 100,57 | B083            | 80B           | 2    | 18000            | 6996         |
| 28,1        | 358        | 1,2 | 33,04  | BA72            | 90L/100LR     | 6    | 9204             | 4602         |
| 28,0        | 326        | 1,4 | 101,20 | B063            | 80B           | 2    | 12000            | 4458         |
| 27,8        | 343        | 1,8 | 33,43  | B063            | 90L/100LR     | 6    | 12000            | 4444         |
| 27,6        | 343        | 1,7 | 50,81  | B063            | 80D/90S       | 4    | 12000            | 4460         |
| 27,4        | 346        | 2,5 | 51,19  | B083            | 80D/90S       | 4    | 18000            | 7041         |
| 27,0        | 354        | 2,5 | 34,49  | B083            | 90L/100LR     | 6    | 18000            | 7066         |
| 26,9        | 339        | 1,9 | 105,29 | B083            | 80B           | 2    | 18000            | 7091         |
| 26,8        | 340        | 4,0 | 105,44 | B103            | 80B           | 2    | 22000            | 8781         |
| 26,5        | 357        | 1,3 | 52,83  | BA73            | 80D/90S       | 4    | 9391             | 4696         |
| 25,7        | 389        | 0,9 | 54,94  | BA72            | 80D/90S       | 4    | 9492             | 4746         |

## 1,10 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 25,3        | 360        | 1,2 | 111,74 | B063            | 80B           | 2    | 12000            | 4576         |
| 25,2        | 375        | 2,3 | 55,52  | B083            | 80D/90S       | 4    | 18000            | 7209         |
| 24,7        | 370        | 3,6 | 114,80 | B103            | 80B           | 2    | 22000            | 9013         |
| 24,6        | 384        | 1,6 | 56,93  | B063            | 80D/90S       | 4    | 12000            | 4594         |
| 24,3        | 375        | 1,7 | 116,25 | B083            | 80B           | 2    | 18000            | 7299         |
| 24,1        | 396        | 1,6 | 38,58  | B063            | 90L/100LR     | 6    | 12000            | 4613         |
| 23,5        | 407        | 2,2 | 39,60  | B083            | 90L/100LR     | 6    | 18000            | 7354         |
| 23,5        | 388        | 3,5 | 120,42 | B103            | 80B           | 2    | 22000            | 9147         |
| 23,4        | 405        | 2,1 | 59,96  | B083            | 80D/90S       | 4    | 18000            | 7371         |
| 22,8        | 400        | 1,1 | 124,20 | B063            | 80B           | 2    | 12000            | 4703         |
| 22,8        | 443        | 0,9 | 40,87  | BA72            | 90L/100LR     | 6    | 9880             | 4940         |
| 22,3        | 409        | 1,6 | 126,76 | B083            | 80B           | 2    | 18000            | 7483         |
| 22,0        | 430        | 2,0 | 63,74  | B083            | 80D/90S       | 4    | 18000            | 7501         |
| 21,7        | 441        | 2,0 | 42,95  | B083            | 90L/100LR     | 6    | 18000            | 7527         |
| 21,6        | 438        | 3,9 | 64,89  | B103            | 80D/90S       | 4    | 22000            | 9376         |
| 21,5        | 444        | 1,4 | 43,22  | B063            | 90L/100LR     | 6    | 12000            | 4747         |
| 21,4        | 441        | 1,0 | 65,35  | BA73            | 80D/90S       | 4    | 10000            | 5041         |
| 21,3        | 428        | 3,2 | 132,87 | B103            | 80B           | 2    | 22000            | 9426         |
| 21,2        | 451        | 1,0 | 43,89  | BA73            | 90L           | 6    | 10000            | 5059         |
| 20,8        | 458        | 3,9 | 44,61  | B103            | 90L/100LR     | 6    | 22000            | 9471         |
| 20,5        | 467        | 1,9 | 45,44  | B083            | 90L/100LR     | 6    | 18000            | 7648         |
| 20,4        | 463        | 3,7 | 68,58  | B103            | 80D/90S       | 4    | 22000            | 9535         |
| 20,3        | 449        | 1,0 | 139,15 | B063            | 80B           | 2    | 12000            | 4841         |
| 20,2        | 467        | 1,3 | 69,16  | B063            | 80D/90S       | 4    | 12000            | 4825         |
| 20,2        | 467        | 1,8 | 69,14  | B083            | 80D/90S       | 4    | 18000            | 7677         |
| 19,7        | 486        | 3,7 | 47,28  | B103            | 90L/100LR     | 6    | 22000            | 9640         |
| 19,6        | 466        | 2,9 | 144,69 | B103            | 80B           | 2    | 22000            | 9674         |
| 19,5        | 467        | 1,4 | 144,77 | B083            | 80B           | 2    | 18000            | 7773         |
| 19,2        | 491        | 3,5 | 72,76  | B103            | 80D/90S       | 4    | 22000            | 9708         |
| 19,1        | 494        | 1,7 | 73,14  | B083            | 80D/90S       | 4    | 18000            | 7799         |
| 18,5        | 516        | 3,5 | 50,24  | B103            | 90L/100LR     | 6    | 22000            | 9818         |
| 18,3        | 522        | 1,2 | 50,81  | B063            | 90L/100LR     | 6    | 12000            | 4938         |
| 18,2        | 526        | 1,7 | 51,19  | B083            | 90L/100LR     | 6    | 18000            | 7908         |
| 18,1        | 523        | 1,1 | 77,48  | B063            | 80D/90S       | 4    | 12000            | 4960         |
| 17,7        | 533        | 3,2 | 78,92  | B103            | 80D/90S       | 4    | 22000            | 9949         |
| 17,5        | 544        | 3,3 | 53,02  | B103            | 90L/100LR     | 6    | 22000            | 9978         |
| 17,3        | 545        | 1,6 | 80,76  | B083            | 80D/90S       | 4    | 18000            | 8018         |
| 17,1        | 533        | 2,5 | 165,25 | B103            | 80B           | 2    | 22000            | 10070        |
| 16,7        | 570        | 1,6 | 55,52  | B083            | 90L/100LR     | 6    | 18000            | 8088         |
| 16,7        | 565        | 3,2 | 83,66  | B103            | 80D/90S       | 4    | 22000            | 10124        |
| 16,3        | 584        | 1,1 | 56,93  | B063            | 90L/100LR     | 6    | 12000            | 5072         |
| 15,9        | 601        | 3,0 | 58,50  | B103            | 90L/100LR     | 6    | 22000            | 10276        |

## 1,10 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size      | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|--------------------|------|------------------|--------------|
| 15,6        | 606        | 1,0 | 90,33  | B063            | 80D <sup>(1)</sup> | 4    | 12000            | 5133         |
| 15,5        | 616        | 1,4 | 59,96  | B083            | 90L/100LR          | 6    | 18000            | 8260         |
| 15,2        | 623        | 1,4 | 92,19  | B083            | 80D/90S            | 4    | 18000            | 8315         |
| 15,2        | 623        | 2,9 | 92,31  | B103            | 80D/90S            | 4    | 22000            | 10425        |
| 14,6        | 654        | 1,4 | 63,74  | B083            | 90L/100LR          | 6    | 18000            | 8398         |
| 14,3        | 666        | 2,7 | 64,89  | B103            | 90L/100LR          | 6    | 22000            | 10596        |
| 13,9        | 679        | 1,3 | 100,57 | B083            | 80D/90S            | 4    | 18000            | 8513         |
| 13,6        | 704        | 2,5 | 68,58  | B103            | 90L/100LR          | 6    | 22000            | 10770        |
| 13,5        | 710        | 1,3 | 69,14  | B083            | 90L/100LR          | 6    | 18000            | 8583         |
| 13,3        | 711        | 1,2 | 105,29 | B083            | 80D/90S            | 4    | 18000            | 8618         |
| 13,3        | 712        | 2,5 | 105,44 | B103            | 80D/90S            | 4    | 22000            | 10843        |
| 12,8        | 747        | 2,4 | 72,76  | B103            | 90L/100LR          | 6    | 22000            | 10959        |
| 12,7        | 751        | 1,2 | 73,14  | B083            | 90L/100LR          | 6    | 18000            | 8712         |
| 12,2        | 775        | 2,3 | 114,80 | B103            | 80D/90S            | 4    | 22000            | 11117        |
| 12,0        | 785        | 1,1 | 116,25 | B083            | 80D/90S            | 4    | 18000            | 8846         |
| 11,8        | 810        | 2,2 | 78,92  | B103            | 90L/100LR          | 6    | 22000            | 11222        |
| 11,6        | 813        | 2,2 | 120,42 | B103            | 80D/90S            | 4    | 22000            | 11272        |
| 11,5        | 829        | 1,1 | 80,76  | B083            | 90L/100LR          | 6    | 18000            | 8940         |
| 11,1        | 859        | 2,2 | 83,66  | B103            | 90L/100LR          | 6    | 22000            | 11413        |
| 11,0        | 856        | 1,0 | 126,76 | B083            | 80D/90S            | 4    | 18000            | 9046         |
| 10,8        | 878        | 4,0 | 129,96 | B123            | 90S <sup>(1)</sup> | 4    | 30000            | 16223        |
| 10,5        | 897        | 2,0 | 132,87 | B103            | 80D/90S            | 4    | 22000            | 11597        |
| 10,1        | 947        | 0,9 | 92,19  | B083            | 90L/100LR          | 6    | 18000            | 9246         |
| 10,1        | 948        | 2,0 | 92,31  | B103            | 90L/100LR          | 6    | 22000            | 11740        |
| 9,7         | 977        | 1,8 | 144,69 | B103            | 80D/90S            | 4    | 22000            | 11884        |
| 9,7         | 975        | 3,6 | 144,43 | B123            | 90S                | 4    | 30000            | 16711        |
| 9,5         | 1002       | 3,7 | 99,70  | B123            | 100LR              | 6    | 30000            | 16778        |
| 8,8         | 1083       | 1,7 | 105,44 | B103            | 90L/100LR          | 6    | 22000            | 12191        |
| 8,7         | 1095       | 3,4 | 106,65 | B123            | 90L/100LR          | 6    | 30000            | 17193        |
| 8,7         | 1082       | 3,2 | 160,23 | B123            | 90S                | 4    | 30000            | 17198        |
| 8,5         | 1116       | 1,6 | 165,25 | B103            | 80D/90S            | 4    | 22000            | 12338        |
| 8,1         | 1179       | 1,6 | 114,80 | B103            | 90L/100LR          | 6    | 22000            | 12484        |
| 7,8         | 1228       | 3,0 | 119,60 | B123            | 90L/100LR          | 6    | 30000            | 17736        |
| 7,8         | 1218       | 2,9 | 180,40 | B123            | 90S                | 4    | 30000            | 17762        |
| 7,7         | 1236       | 1,5 | 120,42 | B103            | 90L/100LR          | 6    | 22000            | 12650        |
| 7,2         | 1334       | 2,8 | 129,96 | B123            | 90L/100LR          | 6    | 30000            | 18135        |
| 7,0         | 1364       | 1,4 | 132,87 | B103            | 90L/100LR          | 6    | 22000            | 12996        |
| 7,0         | 1371       | 3,8 | 136,44 | B143            | 100LR              | 6    | 40000            | 40000        |
| 6,4         | 1486       | 1,3 | 144,69 | B103            | 90L/100LR          | 6    | 22000            | 13299        |
| 6,4         | 1483       | 2,5 | 144,43 | B123            | 90L/100LR          | 6    | 30000            | 18644        |
| 6,4         | 1504       | 3,5 | 149,59 | B143            | 100LR              | 6    | 40000            | 40000        |
| 5,8         | 1645       | 2,2 | 160,23 | B123            | 90L/100LR          | 6    | 30000            | 19149        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 1,10 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 5,7         | 1674       | 3,1 | 166,53 | B143            | 100LR         | 6    | 40000            | 40000        |
| 5,6         | 1697       | 1,1 | 165,25 | B103            | 90L/100LR     | 6    | 22000            | 13776        |
| 5,2         | 1852       | 2,0 | 180,40 | B123            | 90L/100LR     | 6    | 30000            | 19728        |
| 5,1         | 1882       | 2,8 | 187,24 | B143            | 100LR         | 6    | 40000            | 40000        |

## 1,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size      | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|--------------------|------|------------------|--------------|
| 369,0       | 36         | 1,9 | 7,62  | BA42            | 80C <sup>(1)</sup> | 2    | -                | 1438         |
| 355,1       | 37         | 3,2 | 7,91  | BA52            | 80C/90S            | 2    | -                | 1561         |
| 297,0       | 44         | 2,7 | 9,46  | BA52            | 80C/90S            | 2    | -                | 1657         |
| 264,5       | 50         | 1,4 | 10,62 | BA42            | 80C <sup>(1)</sup> | 2    | -                | 1607         |
| 242,8       | 54         | 2,2 | 11,57 | BA52            | 80C/90S            | 2    | -                | 1772         |
| 217,0       | 61         | 1,1 | 12,95 | BA42            | 80C <sup>(1)</sup> | 2    | -                | 1716         |
| 192,1       | 68         | 1,8 | 14,63 | BA52            | 80C/90S            | 2    | -                | 1915         |
| 176,9       | 77         | 2,1 | 7,91  | BA52            | 90L/90LA           | 4    | -                | 1969         |
| 170,6       | 77         | 1,2 | 16,47 | BA42            | 80C <sup>(1)</sup> | 2    | -                | 1860         |
| 164,2       | 80         | 1,9 | 17,11 | BA52            | 80C/90S            | 2    | -                | 2018         |
| 162,7       | 80         | 3,8 | 5,71  | B063            | 100L/100LA         | 6    | 9188             | 2625         |
| 158,3       | 83         | 3,8 | 17,94 | BA72            | 90S                | 2    | 5176             | 2588         |
| 148,0       | 92         | 1,7 | 9,46  | BA52            | 90L/90LA           | 4    | -                | 2090         |
| 139,2       | 98         | 3,6 | 10,06 | BA72            | 90L/90LA           | 4    | 5403             | 2701         |
| 137,3       | 96         | 1,6 | 20,46 | BA52            | 80C/90S            | 2    | -                | 2142         |
| 135,2       | 96         | 3,7 | 6,88  | B063            | 100L/100LA         | 6    | 9717             | 2776         |
| 128,0       | 103        | 3,1 | 22,19 | BA72            | 90S                | 2    | 5556             | 2778         |
| 127,0       | 103        | 3,6 | 7,32  | B063            | 100L/100LA         | 6    | 9900             | 2829         |
| 121,0       | 113        | 1,4 | 11,57 | BA52            | 90L/90LA           | 4    | -                | 2235         |
| 112,5       | 121        | 2,9 | 12,44 | BA72            | 90L/90LA           | 4    | 5800             | 2900         |
| 112,3       | 117        | 1,3 | 25,03 | BA52            | 80C/90S            | 2    | -                | 2291         |
| 111,3       | 124        | 3,0 | 8,36  | BA72            | 100L/100LA         | 6    | 5821             | 2910         |
| 107,7       | 116        | 3,9 | 26,09 | B063            | 80C/90S            | 2    | 10421            | 2977         |
| 102,4       | 128        | 2,5 | 27,45 | BA72            | 80C/90S            | 2    | 5985             | 2993         |
| 101,5       | 128        | 3,8 | 9,16  | B063            | 100L/100LA         | 6    | 10579            | 3023         |
| 100,2       | 124        | 3,6 | 28,03 | B063            | 80C/90S            | 2    | 10644            | 3041         |
| 95,7        | 142        | 1,1 | 14,63 | BA52            | 90L/90LA           | 4    | -                | 2416         |
| 93,9        | 145        | 2,9 | 14,91 | BA72            | 90L/90LA           | 4    | 6160             | 3080         |
| 92,4        | 149        | 2,5 | 10,06 | BA72            | 100L/100LA         | 6    | 6192             | 3096         |
| 90,6        | 144        | 3,8 | 10,26 | B063            | 100L/100LA         | 6    | 10936            | 3124         |
| 88,8        | 148        | 1,0 | 31,63 | BA52            | 80C/90S            | 2    | -                | 2477         |
| 85,0        | 154        | 2,0 | 33,04 | BA72            | 80C/90S            | 2    | 6367             | 3183         |
| 84,3        | 154        | 3,7 | 11,03 | B063            | 100L/100LA         | 6    | 11165            | 3190         |
| 84,1        | 148        | 3,0 | 33,43 | B063            | 80C/90S            | 2    | 11207            | 3202         |

<sup>(1)</sup> Available only with brake motor (TBS)



## 1,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor      |      | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------------|------|------------------|--------------|
|             |            |     |       |                 | Size       | Pole |                  |              |
| 82,3        | 157        | 3,8 | 17,00 | B063            | 90L/90LA   | 4    | 11249            | 3214         |
| 81,8        | 166        | 1,2 | 17,11 | BA52            | 90L/90LA   | 4    | -                | 2546         |
| 78,0        | 174        | 2,4 | 17,94 | BA72            | 90L/90LA   | 4    | 6552             | 3276         |
| 75,3        | 173        | 3,5 | 12,35 | B063            | 100L/100LA | 6    | 11534            | 3296         |
| 74,7        | 184        | 2,0 | 12,44 | BA72            | 100L/100LA | 6    | 6647             | 3323         |
| 72,8        | 171        | 2,6 | 38,58 | B063            | 80C/90S    | 2    | 11679            | 3337         |
| 71,0        | 175        | 3,6 | 39,60 | B083            | 80C/90S    | 2    | 18000            | 5229         |
| 70,7        | 184        | 3,4 | 13,15 | B063            | 100L/100LA | 6    | 11741            | 3354         |
| 68,8        | 191        | 1,6 | 40,87 | BA72            | 80C/90S    | 2    | 6834             | 3417         |
| 68,4        | 199        | 1,0 | 20,46 | BA52            | 90L/90LA   | 4    | -                | 2702         |
| 65,4        | 190        | 3,4 | 42,95 | B083            | 80C/90S    | 2    | 18000            | 5360         |
| 65,0        | 191        | 2,4 | 43,22 | B063            | 80C/90S    | 2    | 12000            | 3446         |
| 64,0        | 194        | 1,7 | 43,89 | BA73            | 80C/90S    | 2    | 6999             | 3499         |
| 63,1        | 216        | 1,9 | 22,19 | BA72            | 90L/90LA   | 4    | 7033             | 3517         |
| 62,5        | 206        | 2,9 | 22,39 | B063            | 90L/90LA   | 4    | 12000            | 3475         |
| 62,4        | 220        | 2,0 | 14,91 | BA72            | 100L/100LA | 6    | 7059             | 3530         |
| 61,8        | 201        | 3,2 | 45,44 | B083            | 80C/90S    | 2    | 18000            | 5452         |
| 61,6        | 213        | 1,2 | 45,64 | BA72            | 80C/90S    | 2    | 7091             | 3545         |
| 61,3        | 212        | 2,9 | 15,18 | B063            | 100L/100LA | 6    | 12000            | 3492         |
| 56,0        | 232        | 3,8 | 16,60 | B083            | 100L/100LA | 6    | 18000            | 5603         |
| 55,3        | 225        | 2,0 | 50,81 | B063            | 80C/90S    | 2    | 12000            | 3605         |
| 54,9        | 227        | 2,8 | 51,19 | B083            | 80C/90S    | 2    | 18000            | 5650         |
| 54,7        | 238        | 2,6 | 17,00 | B063            | 100L/100LA | 6    | 12000            | 3603         |
| 53,7        | 240        | 2,5 | 26,09 | B063            | 90L/90LA   | 4    | 12000            | 3625         |
| 53,2        | 234        | 1,4 | 52,83 | BA73            | 80C/90S    | 2    | 7445             | 3723         |
| 52,4        | 246        | 3,5 | 26,71 | B083            | 90L/90LA   | 4    | 18000            | 5719         |
| 51,8        | 265        | 1,7 | 17,94 | BA72            | 100L/100LA | 6    | 7509             | 3755         |
| 51,1        | 257        | 1,0 | 54,94 | BA72            | 80C/90S    | 2    | 7543             | 3771         |
| 51,0        | 267        | 1,6 | 27,45 | BA72            | 90L/90LA   | 4    | 7550             | 3775         |
| 50,8        | 257        | 3,5 | 18,32 | B083            | 100L/100LA | 6    | 18000            | 5771         |
| 50,6        | 246        | 2,6 | 55,52 | B083            | 80C/90S    | 2    | 18000            | 5789         |
| 49,9        | 258        | 2,3 | 28,03 | B063            | 90L/90LA   | 4    | 12000            | 3696         |
| 49,4        | 252        | 1,8 | 56,93 | B063            | 80C/90S    | 2    | 12000            | 3719         |
| 47,5        | 272        | 3,1 | 29,50 | B083            | 90L/90LA   | 4    | 18000            | 5889         |
| 46,9        | 265        | 2,4 | 59,96 | B083            | 80C/90S    | 2    | 18000            | 5922         |
| 44,1        | 282        | 2,3 | 63,74 | B083            | 80C/90S    | 2    | 18000            | 6030         |
| 44,0        | 293        | 2,9 | 31,80 | B083            | 90L/90LA   | 4    | 18000            | 6020         |
| 43,0        | 289        | 1,2 | 65,35 | BA73            | 80C/90S    | 2    | 7992             | 3996         |
| 42,4        | 321        | 1,3 | 33,04 | BA72            | 90L/90LA   | 4    | 8031             | 4016         |
| 41,9        | 308        | 1,9 | 33,43 | B063            | 90L/90LA   | 4    | 12000            | 3873         |
| 41,9        | 328        | 1,3 | 22,19 | BA72            | 100L/100LA | 6    | 8061             | 4030         |
| 41,5        | 314        | 2,0 | 22,39 | B063            | 100L/100LA | 6    | 12000            | 3877         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 1,50 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor              |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|--------------------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size               | Pole |                              |                          |
| 40,8                    | 319                    | 2,8            | 22,82  | B083            | 100L/100LA         | 6    | 18000                        | 6153                     |
| 40,6                    | 306                    | 1,5            | 69,16  | B063            | 80C/90S            | 2    | 12000                        | 3918                     |
| 40,6                    | 318                    | 2,7            | 34,49  | B083            | 90L/90LA           | 4    | 18000                        | 6164                     |
| 40,6                    | 306                    | 2,1            | 69,14  | B083            | 80C/90S            | 2    | 18000                        | 6175                     |
| 38,6                    | 322                    | 4,0            | 72,76  | B103            | 80C <sup>(1)</sup> | 2    | 22000                        | 7770                     |
| 38,4                    | 324                    | 2,0            | 73,14  | B083            | 80C/90S            | 2    | 18000                        | 6277                     |
| 36,3                    | 355                    | 1,7            | 38,58  | B063            | 90L/90LA           | 4    | 12000                        | 4018                     |
| 36,3                    | 343                    | 1,3            | 77,48  | B063            | 80C/90S            | 2    | 12000                        | 4035                     |
| 35,6                    | 365                    | 1,7            | 26,09  | B063            | 100L/100LA         | 6    | 12000                        | 4032                     |
| 35,6                    | 349                    | 3,6            | 78,92  | B103            | 80C/90S            | 2    | 22000                        | 7966                     |
| 35,4                    | 365                    | 2,3            | 39,60  | B083            | 90L/90LA           | 4    | 18000                        | 6414                     |
| 34,8                    | 374                    | 2,4            | 26,71  | B083            | 100L/100LA         | 6    | 18000                        | 6439                     |
| 34,8                    | 358                    | 1,8            | 80,76  | B083            | 80C/90S            | 2    | 18000                        | 6459                     |
| 34,3                    | 397                    | 1,0            | 40,87  | BA72            | 90L/90LA           | 4    | 8621                         | 4311                     |
| 33,9                    | 406                    | 1,1            | 27,45  | BA72            | 100L/100LA         | 6    | 8653                         | 4326                     |
| 33,6                    | 370                    | 3,6            | 83,66  | B103            | 80C/90S            | 2    | 22000                        | 8109                     |
| 33,2                    | 392                    | 1,6            | 28,03  | B063            | 100L/100LA         | 6    | 12000                        | 4105                     |
| 32,6                    | 396                    | 2,1            | 42,95  | B083            | 90L/90LA           | 4    | 18000                        | 6565                     |
| 32,4                    | 398                    | 1,5            | 43,22  | B063            | 90L/90LA           | 4    | 12000                        | 4134                     |
| 31,9                    | 404                    | 1,1            | 43,89  | BA73            | 90L/90LA           | 4    | 8828                         | 4414                     |
| 31,5                    | 413                    | 2,2            | 29,50  | B083            | 100L/100LA         | 6    | 18000                        | 6622                     |
| 31,1                    | 400                    | 1,1            | 90,33  | B063            | 80C <sup>(1)</sup> | 2    | 12000                        | 4194                     |
| 30,8                    | 418                    | 2,0            | 45,44  | B083            | 90L/90LA           | 4    | 18000                        | 6670                     |
| 30,5                    | 408                    | 1,6            | 92,19  | B083            | 80C/90S            | 2    | 18000                        | 6707                     |
| 30,4                    | 428                    | 3,9            | 30,55  | B103            | 100L/100LA         | 6    | 22000                        | 8340                     |
| 30,4                    | 409                    | 3,3            | 92,31  | B103            | 80C/90S            | 2    | 22000                        | 8355                     |
| 29,6                    | 435                    | 3,9            | 47,28  | B103            | 90L/90LA           | 4    | 22000                        | 8413                     |
| 29,2                    | 445                    | 2,0            | 31,80  | B083            | 100L/100LA         | 6    | 18000                        | 6763                     |
| 28,1                    | 463                    | 3,9            | 33,07  | B103            | 100L/100LA         | 6    | 22000                        | 8541                     |
| 28,1                    | 488                    | 0,9            | 33,04  | BA72            | 100L/100LA         | 6    | 9204                         | 4602                     |
| 27,9                    | 445                    | 1,4            | 100,57 | B083            | 80C/90S            | 2    | 18000                        | 6873                     |
| 27,9                    | 463                    | 3,7            | 50,24  | B103            | 90L/90LA           | 4    | 22000                        | 8568                     |
| 27,8                    | 468                    | 1,3            | 33,43  | B063            | 100L/100LA         | 6    | 12000                        | 4283                     |
| 27,8                    | 448                    | 1,0            | 101,20 | B063            | 80C <sup>(1)</sup> | 2    | 12000                        | 4312                     |
| 27,6                    | 468                    | 1,3            | 50,81  | B063            | 90L/90LA           | 4    | 12000                        | 4299                     |
| 27,4                    | 471                    | 1,8            | 51,19  | B083            | 90L/90LA           | 4    | 18000                        | 6895                     |
| 27,0                    | 483                    | 1,8            | 34,49  | B083            | 100L/100LA         | 6    | 18000                        | 6917                     |
| 26,7                    | 466                    | 1,4            | 105,29 | B083            | 80C/90S            | 2    | 18000                        | 6962                     |
| 26,6                    | 467                    | 2,9            | 105,44 | B103            | 80C/90S            | 2    | 22000                        | 8697                     |
| 26,5                    | 487                    | 0,9            | 52,83  | BA73            | 90L/90LA           | 4    | 9391                         | 4696                     |
| 26,4                    | 488                    | 3,5            | 53,02  | B103            | 90L/90LA           | 4    | 22000                        | 8708                     |
| 25,9                    | 502                    | 3,6            | 35,87  | B103            | 100L/100LA         | 6    | 22000                        | 8751                     |

<sup>(1)</sup> Available only with brake motor (TBS)

## 1,50 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor      |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|------------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size       | Pole |                              |                          |
| 25,2                    | 511                    | 1,7            | 55,52  | B083            | 90L/90LA   | 4    | 18000                        | 7052                     |
| 24,6                    | 524                    | 1,1            | 56,93  | B063            | 90L/90LA   | 4    | 12000                        | 4414                     |
| 24,5                    | 508                    | 2,7            | 114,80 | B103            | 80C/90S    | 2    | 22000                        | 8922                     |
| 24,2                    | 515                    | 1,2            | 116,25 | B083            | 80C/90S    | 2    | 18000                        | 7155                     |
| 24,1                    | 540                    | 1,2            | 38,58  | B063            | 100L/100LA | 6    | 12000                        | 4427                     |
| 23,9                    | 539                    | 3,2            | 58,50  | B103            | 90L/90LA   | 4    | 22000                        | 8967                     |
| 23,5                    | 554                    | 1,6            | 39,60  | B083            | 100L/100LA | 6    | 18000                        | 7183                     |
| 23,4                    | 552                    | 1,5            | 59,96  | B083            | 90L/90LA   | 4    | 18000                        | 7201                     |
| 23,3                    | 533                    | 2,5            | 120,42 | B103            | 80C/90S    | 2    | 22000                        | 9050                     |
| 22,6                    | 576                    | 3,1            | 41,12  | B103            | 100L/100LA | 6    | 22000                        | 9114                     |
| 22,2                    | 561                    | 1,1            | 126,76 | B083            | 80C/90S    | 2    | 18000                        | 7326                     |
| 22,0                    | 587                    | 1,4            | 63,74  | B083            | 90L/90LA   | 4    | 18000                        | 7320                     |
| 21,7                    | 601                    | 1,5            | 42,95  | B083            | 100L/100LA | 6    | 18000                        | 7342                     |
| 21,6                    | 598                    | 2,8            | 64,89  | B103            | 90L/90LA   | 4    | 22000                        | 9245                     |
| 21,5                    | 605                    | 1,0            | 43,22  | B063            | 100L/100LA | 6    | 12000                        | 4539                     |
| 21,1                    | 588                    | 2,3            | 132,87 | B103            | 80C/90S    | 2    | 22000                        | 9318                     |
| 20,8                    | 625                    | 2,9            | 44,61  | B103            | 100L/100LA | 6    | 22000                        | 9334                     |
| 20,5                    | 636                    | 1,4            | 45,44  | B083            | 100L/100LA | 6    | 18000                        | 7452                     |
| 20,4                    | 632                    | 2,7            | 68,58  | B103            | 90L/90LA   | 4    | 22000                        | 9397                     |
| 20,2                    | 637                    | 0,9            | 69,16  | B063            | 90L/90LA   | 4    | 12000                        | 4606                     |
| 20,2                    | 637                    | 1,3            | 69,14  | B083            | 90L/90LA   | 4    | 18000                        | 7480                     |
| 19,7                    | 662                    | 2,7            | 47,28  | B103            | 100L/100LA | 6    | 22000                        | 9495                     |
| 19,6                    | 634                    | 1,0            | 144,77 | B083            | 90S        | 2    | 18000                        | 7570                     |
| 19,4                    | 641                    | 2,1            | 144,69 | B103            | 80C/90S    | 2    | 22000                        | 9554                     |
| 19,2                    | 670                    | 2,5            | 72,76  | B103            | 90L/90LA   | 4    | 22000                        | 9561                     |
| 19,1                    | 674                    | 1,3            | 73,14  | B083            | 90L/90LA   | 4    | 18000                        | 7592                     |
| 18,5                    | 703                    | 2,5            | 50,24  | B103            | 100L/100LA | 6    | 22000                        | 9663                     |
| 18,2                    | 717                    | 1,2            | 51,19  | B083            | 100L/100LA | 6    | 18000                        | 7687                     |
| 17,7                    | 727                    | 2,3            | 78,92  | B103            | 90L/90LA   | 4    | 22000                        | 9789                     |
| 17,7                    | 702                    | 3,7            | 160,23 | B123            | 90S        | 2    | 30000                        | 13821                    |
| 17,5                    | 742                    | 2,4            | 53,02  | B103            | 100L/100LA | 6    | 22000                        | 9815                     |
| 17,3                    | 744                    | 1,1            | 80,76  | B083            | 90L/90LA   | 4    | 18000                        | 7789                     |
| 17,0                    | 732                    | 1,8            | 165,25 | B103            | 80C/90S    | 2    | 22000                        | 9931                     |
| 16,7                    | 777                    | 1,1            | 55,52  | B083            | 100L/100LA | 6    | 18000                        | 7849                     |
| 16,7                    | 770                    | 2,3            | 83,66  | B103            | 90L/90LA   | 4    | 22000                        | 9955                     |
| 15,9                    | 819                    | 2,2            | 58,50  | B103            | 100L/100LA | 6    | 22000                        | 10096                    |
| 15,7                    | 790                    | 3,3            | 180,40 | B123            | 90S        | 2    | 30000                        | 14293                    |
| 15,5                    | 839                    | 1,1            | 59,96  | B083            | 100L/100LA | 6    | 18000                        | 8001                     |
| 15,2                    | 849                    | 1,0            | 92,19  | B083            | 90L/90LA   | 4    | 18000                        | 8053                     |
| 15,2                    | 850                    | 2,1            | 92,31  | B103            | 90L/90LA   | 4    | 22000                        | 10239                    |
| 14,9                    | 876                    | 4,0            | 62,59  | B123            | 100L/100LA | 6    | 30000                        | 14475                    |
| 14,6                    | 892                    | 1,0            | 63,74  | B083            | 100L/100LA | 6    | 18000                        | 8123                     |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 1,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor      |      | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------|------|------------------|--------------|
|             |            |     |        |                 | Size       | Pole |                  |              |
| 14,3        | 908        | 2,0 | 64,89  | B103            | 100L/100LA | 6    | 22000            | 10397        |
| 13,9        | 926        | 0,9 | 100,57 | B083            | 90L/90LA   | 4    | 18000            | 8227         |
| 13,6        | 960        | 1,9 | 68,58  | B103            | 100L/100LA | 6    | 22000            | 10560        |
| 13,5        | 968        | 0,9 | 69,14  | B083            | 100L/100LA | 6    | 18000            | 8285         |
| 13,4        | 972        | 3,6 | 69,43  | B123            | 100L/100LA | 6    | 30000            | 14894        |
| 13,3        | 971        | 1,9 | 105,44 | B103            | 90L/90LA   | 4    | 22000            | 10631        |
| 13,1        | 982        | 3,6 | 106,65 | B123            | 90L/90LA   | 4    | 30000            | 14989        |
| 12,8        | 1019       | 1,8 | 72,76  | B103            | 100L/100LA | 6    | 22000            | 10736        |
| 12,5        | 1042       | 3,5 | 74,42  | B123            | 100L/100LA | 6    | 30000            | 15177        |
| 12,2        | 1057       | 1,7 | 114,80 | B103            | 90L/90LA   | 4    | 22000            | 10885        |
| 11,8        | 1105       | 1,6 | 78,92  | B103            | 100L/100LA | 6    | 22000            | 10980        |
| 11,7        | 1101       | 3,2 | 119,60 | B123            | 90L/90LA   | 4    | 30000            | 15460        |
| 11,6        | 1109       | 1,6 | 120,42 | B103            | 90L/90LA   | 4    | 22000            | 11029        |
| 11,6        | 1121       | 3,3 | 80,04  | B123            | 100L/100LA | 6    | 30000            | 15476        |
| 11,1        | 1171       | 1,6 | 83,66  | B103            | 100L/100LA | 6    | 22000            | 11156        |
| 10,8        | 1197       | 2,9 | 129,96 | B123            | 90L/90LA   | 4    | 30000            | 15804        |
| 10,5        | 1224       | 1,5 | 132,87 | B103            | 90L/90LA   | 4    | 22000            | 11329        |
| 10,3        | 1258       | 2,9 | 89,87  | B123            | 100L/100LA | 6    | 30000            | 15955        |
| 10,1        | 1292       | 1,5 | 92,31  | B103            | 100L/100LA | 6    | 22000            | 11456        |
| 9,9         | 1318       | 4,0 | 94,13  | B143            | 100LA      | 6    | 40000            | 40000        |
| 9,7         | 1332       | 1,4 | 144,69 | B103            | 90L/90LA   | 4    | 22000            | 11592        |
| 9,7         | 1330       | 2,6 | 144,43 | B123            | 90L/90LA   | 4    | 30000            | 16245        |
| 9,3         | 1396       | 2,6 | 99,70  | B123            | 100L/100LA | 6    | 30000            | 16388        |
| 8,8         | 1476       | 1,3 | 105,44 | B103            | 100L/100LA | 6    | 22000            | 11867        |
| 8,8         | 1482       | 3,5 | 105,83 | B143            | 100L/100LA | 6    | 40000            | 40000        |
| 8,7         | 1476       | 2,4 | 160,23 | B123            | 90L/90LA   | 4    | 30000            | 16681        |
| 8,7         | 1493       | 2,5 | 106,65 | B123            | 100L/100LA | 6    | 30000            | 16670        |
| 8,5         | 1522       | 1,2 | 165,25 | B103            | 90L/90LA   | 4    | 22000            | 12005        |
| 8,3         | 1567       | 3,3 | 111,94 | B143            | 100L/100LA | 6    | 40000            | 40000        |
| 8,1         | 1607       | 1,2 | 114,80 | B103            | 100L/100LA | 6    | 22000            | 12132        |
| 7,8         | 1675       | 2,2 | 119,60 | B123            | 100L/100LA | 6    | 30000            | 17150        |
| 7,8         | 1661       | 2,1 | 180,40 | B123            | 90L/90LA   | 4    | 30000            | 17180        |
| 7,7         | 1686       | 1,1 | 120,42 | B103            | 100L/100LA | 6    | 22000            | 12281        |
| 7,5         | 1745       | 3,0 | 124,62 | B143            | 100L/100LA | 6    | 40000            | 40000        |
| 7,2         | 1820       | 2,0 | 129,96 | B123            | 100L/100LA | 6    | 30000            | 17497        |
| 7,0         | 1860       | 1,0 | 132,87 | B103            | 100L/100LA | 6    | 22000            | 12589        |
| 6,8         | 1910       | 2,7 | 136,44 | B143            | 100L/100LA | 6    | 40000            | 40000        |
| 6,4         | 2026       | 0,9 | 144,69 | B103            | 100L/100LA | 6    | 22000            | 12855        |
| 6,4         | 2022       | 1,8 | 144,43 | B123            | 100L/100LA | 6    | 30000            | 17936        |
| 6,2         | 2094       | 2,5 | 149,59 | B143            | 100L/100LA | 6    | 40000            | 40000        |
| 5,8         | 2243       | 1,6 | 160,23 | B123            | 100L/100LA | 6    | 30000            | 18363        |
| 5,6         | 2332       | 2,3 | 166,53 | B143            | 100L/100LA | 6    | 40000            | 40000        |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 1,50 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|------------|------|---------------|-----------|
| 5,2      | 2526    | 1,5 | 180,40 | B123         | 100L/100LA | 6    | 30000         | 18843     |
| 5,0      | 2622    | 2,0 | 187,24 | B143         | 100L/100LA | 6    | 40000         | 40000     |

## 1,85 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------|---------------|-----------|
| 176,9    | 95      | 1,7 | 7,91  | BA52         | 90LB <sup>(1)</sup> | 4    | -             | 1969      |
| 167,5    | 100     | 3,5 | 8,36  | BA72         | 90LB <sup>(1)</sup> | 4    | 5079          | 2540      |
| 162,7    | 99      | 3,1 | 5,71  | B063         | 100LB               | 6    | 9103          | 2601      |
| 148,0    | 113     | 1,4 | 9,46  | BA52         | 90LB <sup>(1)</sup> | 4    | -             | 2090      |
| 139,2    | 121     | 2,9 | 10,06 | BA72         | 90LB <sup>(1)</sup> | 4    | 5403          | 2701      |
| 135,2    | 119     | 3,0 | 6,88  | B063         | 100LB               | 6    | 9615          | 2747      |
| 127,0    | 126     | 2,9 | 7,32  | B063         | 100LB               | 6    | 9792          | 2798      |
| 121,0    | 139     | 1,2 | 11,57 | BA52         | 90LB <sup>(1)</sup> | 4    | -             | 2235      |
| 119,1    | 135     | 3,9 | 7,81  | B083         | 100LB               | 6    | 15480         | 4423      |
| 112,5    | 149     | 2,3 | 12,44 | BA72         | 90LB <sup>(1)</sup> | 4    | 5800          | 2900      |
| 111,3    | 152     | 2,4 | 8,36  | BA72         | 100LB               | 6    | 5821          | 2910      |
| 106,5    | 149     | 3,9 | 13,15 | B063         | 90LB <sup>(1)</sup> | 4    | 10310         | 2946      |
| 101,5    | 158     | 3,1 | 9,16  | B063         | 100LB               | 6    | 10444         | 2984      |
| 95,7     | 175     | 0,9 | 14,63 | BA52         | 90LB <sup>(1)</sup> | 4    | -             | 2416      |
| 93,9     | 179     | 2,4 | 14,91 | BA72         | 90LB <sup>(1)</sup> | 4    | 6160          | 3080      |
| 92,4     | 183     | 2,0 | 10,06 | BA72         | 100LB               | 6    | 6192          | 3096      |
| 92,3     | 172     | 3,4 | 15,18 | B063         | 90LB <sup>(1)</sup> | 4    | 10738         | 3068      |
| 90,6     | 177     | 3,1 | 10,26 | B063         | 100LB               | 6    | 10784         | 3081      |
| 88,6     | 181     | 3,8 | 10,49 | B083         | 100LB               | 6    | 16934         | 4838      |
| 84,3     | 190     | 3,0 | 11,03 | B063         | 100LB               | 6    | 11002         | 3144      |
| 82,3     | 193     | 3,1 | 17,00 | B063         | 90LB <sup>(1)</sup> | 4    | 11084         | 3167      |
| 81,8     | 205     | 1,0 | 17,11 | BA52         | 90LB <sup>(1)</sup> | 4    | -             | 2546      |
| 80,3     | 200     | 3,9 | 11,59 | B083         | 100LB               | 6    | 17445         | 4984      |
| 78,0     | 215     | 2,0 | 17,94 | BA72         | 90LB <sup>(1)</sup> | 4    | 6552          | 3276      |
| 75,3     | 213     | 2,9 | 12,35 | B063         | 100LB               | 6    | 11352         | 3244      |
| 74,7     | 227     | 1,6 | 12,44 | BA72         | 100LB               | 6    | 6647          | 3323      |
| 70,7     | 227     | 2,7 | 13,15 | B063         | 100LB               | 6    | 11547         | 3299      |
| 64,5     | 249     | 3,4 | 14,43 | B083         | 100LB               | 6    | 18000         | 5319      |
| 63,1     | 266     | 1,6 | 22,19 | BA72         | 90LB <sup>(1)</sup> | 4    | 7033          | 3517      |
| 62,5     | 254     | 2,4 | 22,39 | B063         | 90LB <sup>(1)</sup> | 4    | 11945         | 3413      |
| 62,4     | 272     | 1,6 | 14,91 | BA72         | 100LB               | 6    | 7059          | 3530      |
| 61,4     | 259     | 3,3 | 22,82 | B083         | 90LB <sup>(1)</sup> | 4    | 18000         | 5399      |
| 61,3     | 262     | 2,4 | 15,18 | B063         | 100LB               | 6    | 11997         | 3428      |
| 56,0     | 287     | 3,1 | 16,60 | B083         | 100LB               | 6    | 18000         | 5541      |
| 54,7     | 294     | 2,1 | 17,00 | B063         | 100LB               | 6    | 12000         | 3531      |
| 53,7     | 296     | 2,0 | 26,09 | B063         | 90LB <sup>(1)</sup> | 4    | 12000         | 3552      |

<sup>(1)</sup> Available only with brake motor (TBS)

## 1,85 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|------|------------------|--------------|
| 52,4        | 303        | 2,8 | 26,71 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 5653         |
| 51,8        | 327        | 1,3 | 17,94 | BA72            | 100LB               | 6    | 7509             | 3755         |
| 51,0        | 329        | 1,3 | 27,45 | BA72            | 90LB <sup>(1)</sup> | 4    | 7550             | 3775         |
| 50,8        | 316        | 2,8 | 18,32 | B083            | 100LB               | 6    | 18000            | 5701         |
| 49,9        | 318        | 1,9 | 28,03 | B063            | 90LB <sup>(1)</sup> | 4    | 12000            | 3618         |
| 47,5        | 335        | 2,5 | 29,50 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 5816         |
| 44,0        | 361        | 2,4 | 31,80 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 5941         |
| 42,4        | 396        | 1,1 | 33,04 | BA72            | 90LB <sup>(1)</sup> | 4    | 8031             | 4016         |
| 41,9        | 380        | 1,6 | 33,43 | B063            | 90LB <sup>(1)</sup> | 4    | 12000            | 3780         |
| 41,9        | 405        | 1,1 | 22,19 | BA72            | 100LB               | 6    | 8061             | 4030         |
| 41,5        | 387        | 1,6 | 22,39 | B063            | 100LB               | 6    | 12000            | 3783         |
| 40,8        | 394        | 2,3 | 22,82 | B083            | 100LB               | 6    | 18000            | 6067         |
| 40,6        | 392        | 2,2 | 34,49 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 6079         |
| 39,2        | 409        | 3,6 | 23,70 | B103            | 100LB               | 6    | 22000            | 7656         |
| 36,3        | 438        | 1,4 | 38,58 | B063            | 90LB <sup>(1)</sup> | 4    | 12000            | 3911         |
| 35,6        | 451        | 1,4 | 26,09 | B063            | 100LB               | 6    | 12000            | 3922         |
| 35,4        | 450        | 1,9 | 39,60 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 6316         |
| 35,1        | 458        | 3,4 | 26,51 | B103            | 100LB               | 6    | 22000            | 7918         |
| 34,8        | 461        | 1,9 | 26,71 | B083            | 100LB               | 6    | 18000            | 6338         |
| 34,0        | 467        | 3,6 | 41,12 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 7992         |
| 33,2        | 484        | 1,3 | 28,03 | B063            | 100LB               | 6    | 12000            | 3987         |
| 32,6        | 488        | 1,7 | 42,95 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 6458         |
| 32,4        | 491        | 1,2 | 43,22 | B063            | 90LB <sup>(1)</sup> | 4    | 12000            | 4015         |
| 31,9        | 498        | 0,9 | 43,89 | BA73            | 90LB <sup>(1)</sup> | 4    | 8828             | 4414         |
| 31,5        | 509        | 1,8 | 29,50 | B083            | 100LB               | 6    | 18000            | 6511         |
| 31,4        | 507        | 3,4 | 44,61 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 8188         |
| 30,8        | 516        | 1,6 | 45,44 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 6557         |
| 30,4        | 528        | 3,2 | 30,55 | B103            | 100LB               | 6    | 22000            | 8258         |
| 29,6        | 537        | 3,2 | 47,28 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 8330         |
| 29,2        | 549        | 1,6 | 31,80 | B083            | 100LB               | 6    | 18000            | 6643         |
| 28,1        | 571        | 3,1 | 33,07 | B103            | 100LB               | 6    | 22000            | 8452         |
| 27,9        | 571        | 3,0 | 50,24 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 8479         |
| 27,8        | 577        | 1,1 | 33,43 | B063            | 100LB               | 6    | 12000            | 4143         |
| 27,6        | 577        | 1,0 | 50,81 | B063            | 90LB <sup>(1)</sup> | 4    | 12000            | 4158         |
| 27,4        | 581        | 1,5 | 51,19 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 6768         |
| 27,0        | 596        | 1,5 | 34,49 | B083            | 100LB               | 6    | 18000            | 6787         |
| 26,4        | 602        | 2,8 | 53,02 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 8614         |
| 25,9        | 619        | 2,9 | 35,87 | B103            | 100LB               | 6    | 22000            | 8655         |
| 25,2        | 631        | 1,3 | 55,52 | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 6914         |
| 24,6        | 647        | 0,9 | 56,93 | B063            | 90LB <sup>(1)</sup> | 4    | 12000            | 4256         |
| 24,1        | 666        | 0,9 | 38,58 | B063            | 100LB               | 6    | 12000            | 4264         |
| 23,9        | 664        | 2,6 | 58,50 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 8863         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 1,85 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------------|------|------------------|--------------|
| 23,5        | 684        | 1,3 | 39,60  | B083            | 100LB               | 6    | 18000            | 7033         |
| 23,4        | 681        | 1,2 | 59,96  | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 7052         |
| 22,6        | 710        | 2,5 | 41,12  | B103            | 100LB               | 6    | 22000            | 9003         |
| 22,0        | 724        | 1,2 | 63,74  | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 7162         |
| 21,7        | 742        | 1,2 | 42,95  | B083            | 100LB               | 6    | 18000            | 7179         |
| 21,6        | 737        | 2,3 | 64,89  | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 9131         |
| 20,8        | 770        | 2,3 | 44,61  | B103            | 100LB               | 6    | 22000            | 9215         |
| 20,5        | 785        | 1,1 | 45,44  | B083            | 100LB               | 6    | 18000            | 7280         |
| 20,4        | 779        | 2,2 | 68,58  | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 9276         |
| 20,2        | 785        | 1,1 | 69,14  | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 7309         |
| 19,7        | 817        | 2,2 | 47,28  | B103            | 100LB               | 6    | 22000            | 9368         |
| 19,2        | 826        | 2,1 | 72,76  | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 9432         |
| 19,1        | 831        | 1,0 | 73,14  | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 7410         |
| 18,7        | 860        | 3,9 | 49,80  | B123            | 100LB               | 6    | 30000            | 13362        |
| 18,5        | 868        | 2,1 | 50,24  | B103            | 100LB               | 6    | 22000            | 9529         |
| 18,2        | 884        | 1,0 | 51,19  | B083            | 100LB               | 6    | 18000            | 7494         |
| 17,7        | 896        | 1,9 | 78,92  | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 9650         |
| 17,5        | 916        | 1,9 | 53,02  | B103            | 100LB               | 6    | 22000            | 9673         |
| 17,5        | 909        | 3,9 | 80,04  | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 13614        |
| 17,3        | 917        | 0,9 | 80,76  | B083            | 90LB <sup>(1)</sup> | 4    | 18000            | 7588         |
| 17,1        | 938        | 3,6 | 54,30  | B123            | 100LB               | 6    | 30000            | 13679        |
| 16,7        | 959        | 0,9 | 55,52  | B083            | 100LB               | 6    | 18000            | 7639         |
| 16,7        | 950        | 1,9 | 83,66  | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 9807         |
| 15,9        | 1010       | 1,8 | 58,50  | B103            | 100LB               | 6    | 22000            | 9939         |
| 15,7        | 1025       | 3,3 | 59,36  | B123            | 100LB               | 6    | 30000            | 14009        |
| 15,2        | 1048       | 1,7 | 92,31  | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 10076        |
| 14,9        | 1081       | 3,2 | 62,59  | B123            | 100LB               | 6    | 30000            | 14207        |
| 14,3        | 1120       | 1,6 | 64,89  | B103            | 100LB               | 6    | 22000            | 10223        |
| 13,6        | 1184       | 1,5 | 68,58  | B103            | 100LB               | 6    | 22000            | 10376        |
| 13,4        | 1199       | 2,9 | 69,43  | B123            | 100LB               | 6    | 30000            | 14596        |
| 13,3        | 1198       | 1,5 | 105,44 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 10445        |
| 13,1        | 1211       | 2,9 | 106,65 | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 14688        |
| 12,8        | 1256       | 1,4 | 72,76  | B103            | 100LB               | 6    | 22000            | 10540        |
| 12,5        | 1285       | 2,9 | 74,42  | B123            | 100LB               | 6    | 30000            | 14857        |
| 12,2        | 1304       | 1,4 | 114,80 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 10682        |
| 12,1        | 1332       | 3,9 | 77,12  | B143            | 100LB               | 6    | 40000            | 40000        |
| 11,8        | 1363       | 1,3 | 78,92  | B103            | 100LB               | 6    | 22000            | 10768        |
| 11,7        | 1358       | 2,6 | 119,60 | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 15122        |
| 11,6        | 1368       | 1,3 | 120,42 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 10817        |
| 11,6        | 1382       | 2,7 | 80,04  | B123            | 100LB               | 6    | 30000            | 15132        |
| 11,1        | 1445       | 1,3 | 83,66  | B103            | 100LB               | 6    | 22000            | 10931        |
| 10,9        | 1477       | 3,6 | 85,54  | B143            | 100LB               | 6    | 40000            | 40000        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 1,85 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------------|------|------------------|--------------|
| 10,8        | 1476       | 2,4 | 129,96 | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 15438        |
| 10,5        | 1509       | 1,2 | 132,87 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 11095        |
| 10,3        | 1552       | 2,4 | 89,87  | B123            | 100LB               | 6    | 30000            | 15570        |
| 10,1        | 1594       | 1,2 | 92,31  | B103            | 100LB               | 6    | 22000            | 11209        |
| 9,9         | 1625       | 3,2 | 94,13  | B143            | 100LB               | 6    | 40000            | 40000        |
| 9,7         | 1643       | 1,1 | 144,69 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 11336        |
| 9,7         | 1640       | 2,1 | 144,43 | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 15838        |
| 9,3         | 1722       | 2,1 | 99,70  | B123            | 100LB               | 6    | 30000            | 15960        |
| 8,8         | 1821       | 1,0 | 105,44 | B103            | 100LB               | 6    | 22000            | 11584        |
| 8,8         | 1828       | 2,9 | 105,83 | B143            | 100LB               | 6    | 40000            | 40000        |
| 8,7         | 1820       | 1,9 | 160,23 | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 16229        |
| 8,7         | 1842       | 2,0 | 106,65 | B123            | 100LB               | 6    | 30000            | 16213        |
| 8,5         | 1877       | 1,0 | 165,25 | B103            | 90LB <sup>(1)</sup> | 4    | 22000            | 11713        |
| 8,3         | 1933       | 2,7 | 111,94 | B143            | 100LB               | 6    | 40000            | 40000        |
| 8,1         | 1982       | 1,0 | 114,80 | B103            | 100LB               | 6    | 22000            | 11823        |
| 7,8         | 2065       | 1,8 | 119,60 | B123            | 100LB               | 6    | 30000            | 16637        |
| 7,8         | 2049       | 1,7 | 180,40 | B123            | 90LB <sup>(1)</sup> | 4    | 30000            | 16671        |
| 7,7         | 2080       | 0,9 | 120,42 | B103            | 100LB               | 6    | 22000            | 11958        |
| 7,5         | 2152       | 2,4 | 124,62 | B143            | 100LB               | 6    | 40000            | 40000        |
| 7,2         | 2244       | 1,6 | 129,96 | B123            | 100LB               | 6    | 30000            | 16940        |
| 6,8         | 2356       | 2,2 | 136,44 | B143            | 100LB               | 6    | 40000            | 40000        |
| 6,4         | 2494       | 1,5 | 144,43 | B123            | 100LB               | 6    | 30000            | 17317        |
| 6,2         | 2583       | 2,0 | 149,59 | B143            | 100LB               | 6    | 40000            | 40000        |
| 5,8         | 2767       | 1,3 | 160,23 | B123            | 100LB               | 6    | 30000            | 17676        |
| 5,6         | 2876       | 1,8 | 166,53 | B143            | 100LB               | 6    | 40000            | 40000        |
| 5,2         | 3115       | 1,2 | 180,40 | B123            | 100LB               | 6    | 30000            | 18069        |
| 5,0         | 3233       | 1,6 | 187,24 | B143            | 100LB               | 6    | 40000            | 40000        |

## 2,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------|------|------------------|--------------|
| 364,0       | 53         | 2,3 | 7,91  | BA52            | 90L           | 2    | -                | 1548         |
| 302,3       | 64         | 1,9 | 9,46  | BA52            | 90L           | 2    | -                | 1647         |
| 284,3       | 68         | 3,9 | 10,06 | BA72            | 90L           | 2    | 4258             | 2129         |
| 250,2       | 76         | 3,8 | 5,71  | B063            | 100LA/112MR   | 4    | 7944             | 2270         |
| 247,1       | 78         | 1,5 | 11,57 | BA52            | 90L           | 2    | -                | 1761         |
| 229,9       | 84         | 3,1 | 12,44 | BA72            | 90L           | 2    | 4571             | 2285         |
| 206,4       | 92         | 3,7 | 6,88  | B063            | 100LA/112MR   | 4    | 8415             | 2404         |
| 196,9       | 98         | 1,2 | 14,63 | BA52            | 90L           | 2    | -                | 1900         |
| 193,9       | 98         | 3,6 | 7,32  | B063            | 100LA/112MR   | 4    | 8572             | 2449         |
| 193,2       | 100        | 3,2 | 14,91 | BA72            | 90L           | 2    | 4843             | 2422         |
| 171,1       | 117        | 3,0 | 8,36  | BA72            | 100LA/112MR   | 4    | 5043             | 2522         |

<sup>(1)</sup> Available only with brake motor (TBS)



## 2,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------|------|------------------|--------------|
| 167,1       | 115        | 1,3 | 17,11 | BA52            | 90L           | 2    | -                | 2006         |
| 162,7       | 117        | 2,6 | 5,71  | B063            | 112M/112MA    | 6    | 9019             | 2577         |
| 159,4       | 121        | 2,6 | 17,94 | BA72            | 90L           | 2    | 5164             | 2582         |
| 155,0       | 122        | 3,8 | 9,16  | B063            | 100LA/112MR   | 4    | 9153             | 2615         |
| 141,2       | 141        | 2,5 | 10,06 | BA72            | 100LA/112MR   | 4    | 5377             | 2689         |
| 139,8       | 138        | 1,1 | 20,46 | BA52            | 90L           | 2    | -                | 2130         |
| 138,4       | 137        | 3,8 | 10,26 | B063            | 100LA/112MR   | 4    | 9457             | 2702         |
| 135,2       | 141        | 2,5 | 6,88  | B063            | 112M/112MA    | 6    | 9514             | 2718         |
| 128,9       | 149        | 2,1 | 22,19 | BA72            | 90L           | 2    | 5543             | 2772         |
| 128,8       | 147        | 3,7 | 11,03 | B063            | 100LA/112MR   | 4    | 9653             | 2758         |
| 127,7       | 143        | 3,1 | 22,39 | B063            | 90L           | 2    | 9699             | 2771         |
| 127,0       | 150        | 2,4 | 7,32  | B063            | 112M/112MA    | 6    | 9684             | 2767         |
| 119,1       | 160        | 3,3 | 7,81  | B083            | 112M/112MA    | 6    | 15377            | 4393         |
| 114,9       | 165        | 3,5 | 12,35 | B063            | 100LA/112MR   | 4    | 9967             | 2848         |
| 114,1       | 175        | 2,0 | 12,44 | BA72            | 100LA/112MR   | 4    | 5772             | 2886         |
| 111,3       | 181        | 2,0 | 8,36  | BA72            | 112M/112MA    | 6    | 5821             | 2910         |
| 109,6       | 166        | 2,7 | 26,09 | B063            | 90L           | 2    | 10127            | 2894         |
| 108,0       | 175        | 3,4 | 13,15 | B063            | 100LA/112MR   | 4    | 10143            | 2898         |
| 107,9       | 177        | 3,6 | 8,62  | B083            | 112M/112MA    | 6    | 15842            | 4526         |
| 107,1       | 170        | 3,7 | 26,71 | B083            | 90L           | 2    | 15910            | 4546         |
| 104,2       | 185        | 1,7 | 27,45 | BA72            | 90L           | 2    | 5950             | 2975         |
| 102,0       | 179        | 2,5 | 28,03 | B063            | 90L           | 2    | 10332            | 2952         |
| 101,5       | 188        | 2,6 | 9,16  | B063            | 112M/112MA    | 6    | 10309            | 2945         |
| 97,0        | 188        | 3,4 | 29,50 | B083            | 90L           | 2    | 16389            | 4683         |
| 95,3        | 210        | 2,0 | 14,91 | BA72            | 100LA/112MR   | 4    | 6131             | 3065         |
| 93,6        | 202        | 2,9 | 15,18 | B063            | 100LA/112MR   | 4    | 10550            | 3014         |
| 92,4        | 218        | 1,7 | 10,06 | BA72            | 112M/112MA    | 6    | 6192             | 3096         |
| 90,6        | 211        | 2,6 | 10,26 | B063            | 112M/112MA    | 6    | 10633            | 3038         |
| 89,9        | 203        | 3,1 | 31,80 | B083            | 90L           | 2    | 16760            | 4789         |
| 88,6        | 216        | 3,2 | 10,49 | B083            | 112M/112MA    | 6    | 16795            | 4799         |
| 86,6        | 223        | 1,4 | 33,04 | BA72            | 90L           | 2    | 6329             | 3165         |
| 85,6        | 221        | 3,8 | 16,60 | B083            | 100LA/112MR   | 4    | 16979            | 4851         |
| 85,5        | 213        | 2,1 | 33,43 | B063            | 90L           | 2    | 10844            | 3098         |
| 84,3        | 226        | 2,5 | 11,03 | B063            | 112M/112MA    | 6    | 10840            | 3097         |
| 83,5        | 226        | 2,7 | 17,00 | B063            | 100LA/112MR   | 4    | 10878            | 3108         |
| 82,9        | 220        | 2,9 | 34,49 | B083            | 90L           | 2    | 17169            | 4905         |
| 80,3        | 238        | 3,3 | 11,59 | B083            | 112M/112MA    | 6    | 17292            | 4941         |
| 79,1        | 252        | 1,7 | 17,94 | BA72            | 100LA/112MR   | 4    | 6521             | 3261         |
| 77,5        | 244        | 3,5 | 18,32 | B083            | 100LA/112MR   | 4    | 17480            | 4994         |
| 75,3        | 254        | 2,4 | 12,35 | B063            | 112M/112MA    | 6    | 11170            | 3191         |
| 74,7        | 270        | 1,4 | 12,44 | BA72            | 112M/112MA    | 6    | 6647             | 3323         |
| 74,1        | 246        | 1,8 | 38,58 | B063            | 90L           | 2    | 11266            | 3219         |

## 2,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size      | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|--------------------|------|------------------|--------------|
| 72,2        | 253        | 2,5 | 39,60 | B083            | 90L                | 2    | 17879            | 5108         |
| 70,7        | 270        | 2,3 | 13,15 | B063            | 112M/112MA         | 6    | 11353            | 3244         |
| 70,0        | 275        | 1,1 | 40,87 | BA72            | 90L                | 2    | 6794             | 3397         |
| 66,6        | 274        | 2,3 | 42,95 | B083            | 90L                | 2    | 18000            | 5230         |
| 66,2        | 276        | 1,6 | 43,22 | B063            | 90L                | 2    | 11606            | 3316         |
| 65,2        | 280        | 1,2 | 43,89 | BA73            | 90L                | 2    | 6958             | 3479         |
| 64,5        | 296        | 2,9 | 14,43 | B083            | 112M/112MA         | 6    | 18000            | 5265         |
| 64,0        | 312        | 1,3 | 22,19 | BA72            | 100LA/112MR        | 4    | 7000             | 3500         |
| 63,4        | 298        | 2,0 | 22,39 | B063            | 100LA/112MR        | 4    | 11686            | 3339         |
| 62,9        | 290        | 2,2 | 45,44 | B083            | 90L                | 2    | 18000            | 5316         |
| 62,4        | 323        | 1,4 | 14,91 | BA72            | 112M/112MA         | 6    | 7059             | 3530         |
| 62,2        | 304        | 2,8 | 22,82 | B083            | 100LA/112MR        | 4    | 18000            | 5321         |
| 61,3        | 312        | 2,0 | 15,18 | B063            | 112M/112MA         | 6    | 11773            | 3364         |
| 56,9        | 321        | 4,0 | 50,24 | B103            | 90L <sup>(1)</sup> | 2    | 22000            | 6806         |
| 56,3        | 324        | 1,4 | 50,81 | B063            | 90L                | 2    | 12000            | 3455         |
| 56,0        | 341        | 2,6 | 16,60 | B083            | 112M/112MA         | 6    | 18000            | 5478         |
| 55,9        | 327        | 2,0 | 51,19 | B083            | 90L                | 2    | 18000            | 5500         |
| 54,7        | 349        | 1,8 | 17,00 | B063            | 112M/112MA         | 6    | 12000            | 3459         |
| 54,4        | 347        | 1,7 | 26,09 | B063            | 100LA/112MR        | 4    | 12000            | 3468         |
| 54,1        | 337        | 1,0 | 52,83 | BA73            | 90L                | 2    | 7401             | 3701         |
| 53,9        | 338        | 3,8 | 53,02 | B103            | 90L                | 2    | 22000            | 6918         |
| 53,2        | 356        | 2,4 | 26,71 | B083            | 100LA/112MR        | 4    | 18000            | 5564         |
| 51,8        | 389        | 1,1 | 17,94 | BA72            | 112M/112MA         | 6    | 7509             | 3755         |
| 51,7        | 386        | 1,1 | 27,45 | BA72            | 100LA/112MR        | 4    | 7514             | 3757         |
| 51,5        | 354        | 1,8 | 55,52 | B083            | 90L                | 2    | 18000            | 5628         |
| 50,8        | 376        | 2,4 | 18,32 | B083            | 112M/112MA         | 6    | 18000            | 5632         |
| 50,7        | 373        | 1,6 | 28,03 | B063            | 100LA/112MR        | 4    | 12000            | 3529         |
| 50,2        | 363        | 1,2 | 56,93 | B063            | 90L                | 2    | 12000            | 3553         |
| 48,9        | 373        | 3,4 | 58,50 | B103            | 90L                | 2    | 22000            | 7127         |
| 48,8        | 391        | 3,8 | 19,06 | B103            | 112M/112MA         | 6    | 22000            | 7116         |
| 48,1        | 393        | 2,2 | 29,50 | B083            | 100LA/112MR        | 4    | 18000            | 5720         |
| 47,7        | 383        | 1,7 | 59,96 | B083            | 90L                | 2    | 18000            | 5750         |
| 46,5        | 407        | 3,9 | 30,55 | B103            | 100LA              | 4    | 22000            | 7224         |
| 44,9        | 407        | 1,6 | 63,74 | B083            | 90L                | 2    | 18000            | 5849         |
| 44,7        | 423        | 2,0 | 31,80 | B083            | 100LA/112MR        | 4    | 18000            | 5839         |
| 44,1        | 414        | 3,1 | 64,89 | B103            | 90L                | 2    | 22000            | 7352         |
| 43,0        | 464        | 0,9 | 33,04 | BA72            | 100LA/112MR        | 4    | 7993             | 3997         |
| 42,9        | 440        | 3,9 | 33,07 | B103            | 100LA/112MR        | 4    | 22000            | 7396         |
| 42,5        | 445        | 1,3 | 33,43 | B063            | 100LA/112MR        | 4    | 12000            | 3676         |
| 41,9        | 481        | 0,9 | 22,19 | BA72            | 112M/112MA         | 6    | 8061             | 4030         |
| 41,7        | 438        | 2,9 | 68,58 | B103            | 90L                | 2    | 22000            | 7474         |
| 41,5        | 460        | 1,4 | 22,39 | B063            | 112M/112MA         | 6    | 12000            | 3689         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5.1 B/BA GEARED MOTORS (50Hz)

## 2,20 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor       |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|-------------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size        | Pole |                              |                          |
| 41,4                    | 441                    | 1,0            | 69,16  | B063            | 90L         | 2    | 12000                        | 3719                     |
| 41,4                    | 441                    | 1,4            | 69,14  | B083            | 90L         | 2    | 18000                        | 5981                     |
| 41,2                    | 459                    | 1,9            | 34,49  | B083            | 100LA/112MR | 4    | 18000                        | 5970                     |
| 40,8                    | 469                    | 1,9            | 22,82  | B083            | 112M/112MA  | 6    | 18000                        | 5981                     |
| 39,6                    | 478                    | 3,6            | 35,87  | B103            | 100LA/112MR | 4    | 22000                        | 7577                     |
| 39,3                    | 464                    | 2,7            | 72,76  | B103            | 90L         | 2    | 22000                        | 7606                     |
| 39,2                    | 487                    | 3,0            | 23,70  | B103            | 112M/112MA  | 6    | 22000                        | 7592                     |
| 39,1                    | 467                    | 1,4            | 73,14  | B083            | 90L         | 2    | 18000                        | 6073                     |
| 36,8                    | 514                    | 1,2            | 38,58  | B063            | 100LA/112MR | 4    | 12000                        | 3793                     |
| 36,2                    | 504                    | 2,5            | 78,92  | B103            | 90L         | 2    | 22000                        | 7791                     |
| 35,9                    | 527                    | 1,6            | 39,60  | B083            | 100LA/112MR | 4    | 18000                        | 6195                     |
| 35,6                    | 536                    | 1,2            | 26,09  | B063            | 112M/112MA  | 6    | 12000                        | 3812                     |
| 35,4                    | 515                    | 1,2            | 80,76  | B083            | 90L         | 2    | 18000                        | 6237                     |
| 35,1                    | 544                    | 2,9            | 26,51  | B103            | 112M/112MA  | 6    | 22000                        | 7847                     |
| 34,8                    | 549                    | 1,6            | 26,71  | B083            | 112M/112MA  | 6    | 18000                        | 6237                     |
| 34,5                    | 548                    | 3,1            | 41,12  | B103            | 100LA/112MR | 4    | 22000                        | 7887                     |
| 34,2                    | 534                    | 2,5            | 83,66  | B103            | 90L         | 2    | 22000                        | 7926                     |
| 33,2                    | 576                    | 1,1            | 28,03  | B063            | 112M/112MA  | 6    | 12000                        | 3869                     |
| 33,1                    | 572                    | 1,5            | 42,95  | B083            | 100LA/112MR | 4    | 18000                        | 6328                     |
| 32,9                    | 576                    | 1,0            | 43,22  | B063            | 100LA/112MR | 4    | 12000                        | 3884                     |
| 31,8                    | 594                    | 2,9            | 44,61  | B103            | 100LA/112MR | 4    | 22000                        | 8076                     |
| 31,5                    | 606                    | 1,5            | 29,50  | B083            | 112M/112MA  | 6    | 18000                        | 6399                     |
| 31,3                    | 605                    | 1,4            | 45,44  | B083            | 100LA/112MR | 4    | 18000                        | 6421                     |
| 31,0                    | 588                    | 1,1            | 92,19  | B083            | 90L         | 2    | 18000                        | 6457                     |
| 31,0                    | 589                    | 2,3            | 92,31  | B103            | 90L         | 2    | 22000                        | 8157                     |
| 30,4                    | 627                    | 2,7            | 30,55  | B103            | 112M/112MA  | 6    | 22000                        | 8176                     |
| 30,0                    | 630                    | 2,7            | 47,28  | B103            | 100LA/112MR | 4    | 22000                        | 8213                     |
| 29,2                    | 653                    | 1,4            | 31,80  | B083            | 112M/112MA  | 6    | 18000                        | 6523                     |
| 28,7                    | 658                    | 0,9            | 50,81  | B063            | 112MR       | 4    | 12000                        | 3986                     |
| 28,6                    | 637                    | 1,0            | 100,57 | B083            | 90L         | 2    | 18000                        | 6592                     |
| 28,3                    | 669                    | 2,5            | 50,24  | B103            | 100LA/112MR | 4    | 22000                        | 8357                     |
| 28,1                    | 679                    | 2,6            | 33,07  | B103            | 112M/112MA  | 6    | 22000                        | 8363                     |
| 27,8                    | 687                    | 0,9            | 33,43  | B063            | 112M/112MA  | 6    | 12000                        | 4002                     |
| 27,7                    | 682                    | 1,2            | 51,19  | B083            | 100LA/112MR | 4    | 18000                        | 6618                     |
| 27,1                    | 673                    | 2,0            | 105,44 | B103            | 90L         | 2    | 22000                        | 8476                     |
| 27,0                    | 708                    | 1,3            | 34,49  | B083            | 112M/112MA  | 6    | 18000                        | 6657                     |
| 26,8                    | 706                    | 2,4            | 53,02  | B103            | 100LA/112MR | 4    | 22000                        | 8486                     |
| 26,8                    | 680                    | 3,9            | 106,65 | B123            | 90L         | 2    | 30000                        | 11966                    |
| 25,9                    | 737                    | 2,4            | 35,87  | B103            | 112M/112MA  | 6    | 22000                        | 8559                     |
| 25,6                    | 739                    | 1,1            | 55,52  | B083            | 100LA/112MR | 4    | 18000                        | 6752                     |
| 24,9                    | 732                    | 1,8            | 114,80 | B103            | 90L         | 2    | 22000                        | 8683                     |
| 24,3                    | 779                    | 2,2            | 58,50  | B103            | 100LA/112MR | 4    | 22000                        | 8725                     |

## 2,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|----------------------|------|------------------|--------------|
| 23,9        | 763        | 3,4 | 119,60 | B123            | 90L                  | 2    | 30000            | 12353        |
| 23,7        | 798        | 1,1 | 59,96  | B083            | 100LA/112MR          | 4    | 18000            | 6879         |
| 23,7        | 768        | 1,8 | 120,42 | B103            | 90L                  | 2    | 22000            | 8802         |
| 23,5        | 813        | 1,1 | 39,60  | B083            | 112M/112MA           | 6    | 18000            | 6884         |
| 22,9        | 832        | 3,5 | 40,53  | B123            | 112M/112MA           | 6    | 30000            | 12446        |
| 22,7        | 833        | 4,0 | 62,59  | B123            | 100LA                | 4    | 30000            | 12495        |
| 22,6        | 844        | 2,1 | 41,12  | B103            | 112M/112MA           | 6    | 22000            | 8893         |
| 22,3        | 849        | 1,0 | 63,74  | B083            | 100LA/112MR          | 4    | 18000            | 6980         |
| 22,0        | 829        | 3,2 | 129,96 | B123            | 90L                  | 2    | 30000            | 12638        |
| 21,9        | 864        | 2,0 | 64,89  | B103            | 100LA/112MR          | 4    | 22000            | 8981         |
| 21,7        | 882        | 1,0 | 42,95  | B083            | 112M/112MA           | 6    | 18000            | 7017         |
| 21,5        | 848        | 1,6 | 132,87 | B103            | 90L                  | 2    | 22000            | 9048         |
| 20,8        | 916        | 1,9 | 44,61  | B103            | 112M/112MA           | 6    | 22000            | 9095         |
| 20,7        | 913        | 1,9 | 68,58  | B103            | 100LA/112MR          | 4    | 22000            | 9119         |
| 20,7        | 922        | 3,4 | 44,89  | B123            | 112M/112MA           | 6    | 30000            | 12793        |
| 20,5        | 933        | 1,0 | 45,44  | B083            | 112M/112MA           | 6    | 18000            | 7109         |
| 20,5        | 921        | 0,9 | 69,14  | B083            | 100LA/112MR          | 4    | 18000            | 7114         |
| 20,5        | 925        | 3,6 | 69,43  | B123            | 100LA/112MR          | 4    | 30000            | 12849        |
| 19,8        | 923        | 1,5 | 144,69 | B103            | 90L                  | 2    | 22000            | 9264         |
| 19,8        | 921        | 2,8 | 144,43 | B123            | 90L                  | 2    | 30000            | 13003        |
| 19,7        | 971        | 1,8 | 47,28  | B103            | 112M/112MA           | 6    | 22000            | 9241         |
| 19,5        | 969        | 1,8 | 72,76  | B103            | 100LA/112MR          | 4    | 22000            | 9268         |
| 19,1        | 991        | 3,5 | 74,42  | B123            | 100LA/112MR          | 4    | 30000            | 13087        |
| 18,7        | 1023       | 3,3 | 49,80  | B123            | 112M/112MA           | 6    | 30000            | 13148        |
| 18,5        | 1032       | 1,7 | 50,24  | B103            | 112M/112MA           | 6    | 22000            | 9394         |
| 18,0        | 1051       | 1,6 | 78,92  | B103            | 100LA/112MR          | 4    | 22000            | 9475         |
| 17,8        | 1022       | 2,6 | 160,23 | B123            | 90L                  | 2    | 30000            | 13366        |
| 17,7        | 1066       | 3,3 | 80,04  | B123            | 100LA/112MR          | 4    | 30000            | 13339        |
| 17,5        | 1089       | 1,6 | 53,02  | B103            | 112M/112MA           | 6    | 22000            | 9531         |
| 17,3        | 1054       | 1,3 | 165,25 | B103            | 90L                  | 2    | 22000            | 9605         |
| 17,1        | 1115       | 3,0 | 54,30  | B123            | 112M/112MA           | 6    | 30000            | 13446        |
| 17,0        | 1114       | 1,6 | 83,66  | B103            | 100LA/112MR          | 4    | 22000            | 9623         |
| 15,9        | 1201       | 1,5 | 58,50  | B103            | 112M/112MA           | 6    | 22000            | 9782         |
| 15,9        | 1151       | 2,3 | 180,40 | B123            | 90L                  | 2    | 30000            | 13784        |
| 15,8        | 1197       | 2,9 | 89,87  | B123            | 100LA/112MR          | 4    | 30000            | 13741        |
| 15,7        | 1219       | 2,8 | 59,36  | B123            | 112M/112MA           | 6    | 30000            | 13755        |
| 15,4        | 1229       | 1,5 | 92,31  | B103            | 100LA/112MR          | 4    | 22000            | 9877         |
| 15,1        | 1253       | 4,0 | 94,13  | B143            | 100LA <sup>(1)</sup> | 4    | 40000            | 40000        |
| 14,9        | 1285       | 2,7 | 62,59  | B123            | 112M/112MA           | 6    | 30000            | 13938        |
| 14,3        | 1332       | 1,3 | 64,89  | B103            | 112M/112MA           | 6    | 22000            | 10049        |
| 14,3        | 1332       | 3,9 | 64,88  | B143            | 112MA                | 6    | 40000            | 40000        |
| 14,2        | 1328       | 2,6 | 99,70  | B123            | 100LA/112MR          | 4    | 30000            | 14103        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 2,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 13,6        | 1408       | 1,3 | 68,58  | B103            | 112M/112MA    | 6    | 22000            | 10192        |
| 13,5        | 1404       | 1,3 | 105,44 | B103            | 100LA/112MR   | 4    | 22000            | 10222        |
| 13,4        | 1426       | 2,4 | 69,43  | B123            | 112M/112MA    | 6    | 30000            | 14298        |
| 13,4        | 1409       | 3,5 | 105,83 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 13,3        | 1420       | 2,5 | 106,65 | B123            | 100LA/112MR   | 4    | 30000            | 14338        |
| 13,2        | 1446       | 3,6 | 70,43  | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 12,8        | 1494       | 1,2 | 72,76  | B103            | 112M/112MA    | 6    | 22000            | 10345        |
| 12,7        | 1491       | 3,4 | 111,94 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 12,5        | 1528       | 2,4 | 74,42  | B123            | 112M/112MA    | 6    | 30000            | 14538        |
| 12,4        | 1529       | 1,2 | 114,80 | B103            | 100LA/112MR   | 4    | 22000            | 10443        |
| 12,1        | 1584       | 3,3 | 77,12  | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 11,9        | 1593       | 2,2 | 119,60 | B123            | 100LA/112MR   | 4    | 30000            | 14736        |
| 11,8        | 1621       | 1,1 | 78,92  | B103            | 112M/112MA    | 6    | 22000            | 10556        |
| 11,8        | 1604       | 1,1 | 120,42 | B103            | 100LA/112MR   | 4    | 22000            | 10567        |
| 11,6        | 1644       | 2,2 | 80,04  | B123            | 112M/112MA    | 6    | 30000            | 14789        |
| 11,4        | 1659       | 3,0 | 124,62 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 11,1        | 1718       | 1,1 | 83,66  | B103            | 112M/112MA    | 6    | 22000            | 10707        |
| 10,9        | 1731       | 2,0 | 129,96 | B123            | 100LA/112MR   | 4    | 30000            | 15022        |
| 10,9        | 1757       | 3,0 | 85,54  | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 10,7        | 1769       | 1,0 | 132,87 | B103            | 100LA/112MR   | 4    | 22000            | 10823        |
| 10,4        | 1817       | 2,8 | 136,44 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 10,3        | 1845       | 2,0 | 89,87  | B123            | 112M/112MA    | 6    | 30000            | 15184        |
| 10,1        | 1896       | 1,0 | 92,31  | B103            | 112M/112MA    | 6    | 22000            | 10961        |
| 9,9         | 1933       | 2,7 | 94,13  | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 9,8         | 1927       | 0,9 | 144,69 | B103            | 100LA/112MR   | 4    | 22000            | 11044        |
| 9,8         | 1923       | 1,8 | 144,43 | B123            | 100LA/112MR   | 4    | 30000            | 15382        |
| 9,5         | 1992       | 2,5 | 149,59 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 9,3         | 2047       | 1,8 | 99,70  | B123            | 112M/112MA    | 6    | 30000            | 15533        |
| 9,1         | 2098       | 0,9 | 105,44 | B103            | 112M          | 6    | 22000            | 11220        |
| 8,9         | 2134       | 1,6 | 160,23 | B123            | 100LA/112MR   | 4    | 30000            | 15730        |
| 8,8         | 2173       | 2,4 | 105,83 | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 8,7         | 2190       | 1,7 | 106,65 | B123            | 112M/112MA    | 6    | 30000            | 15755        |
| 8,5         | 2218       | 2,3 | 166,53 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 8,3         | 2299       | 2,3 | 111,94 | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 7,9         | 2402       | 1,5 | 180,40 | B123            | 100LA/112MR   | 4    | 30000            | 16117        |
| 7,8         | 2456       | 1,5 | 119,60 | B123            | 112M/112MA    | 6    | 30000            | 16124        |
| 7,6         | 2493       | 2,0 | 187,24 | B143            | 100LA/112MR   | 4    | 40000            | 40000        |
| 7,5         | 2559       | 2,1 | 124,62 | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 7,2         | 2669       | 1,4 | 129,96 | B123            | 112M/112MA    | 6    | 30000            | 16382        |
| 6,8         | 2802       | 1,9 | 136,44 | B143            | 112M/112MA    | 6    | 40000            | 40000        |
| 6,4         | 2966       | 1,2 | 144,43 | B123            | 112M/112MA    | 6    | 30000            | 16697        |
| 6,2         | 3072       | 1,7 | 149,59 | B143            | 112M/112MA    | 6    | 40000            | 40000        |

## 2,20 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|------------|------|---------------|-----------|
| 5,8      | 3290    | 1,1 | 160,23 | B123         | 112M/112MA | 6    | 30000         | 16989     |
| 5,6      | 3420    | 1,5 | 166,53 | B143         | 112M/112MA | 6    | 40000         | 40000     |
| 5,2      | 3705    | 1,0 | 180,40 | B123         | 112M/112MA | 6    | 30000         | 17295     |
| 5,0      | 3845    | 1,4 | 187,24 | B143         | 112M/112MA | 6    | 40000         | 40000     |

## 3,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size       | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|------------------|------|---------------|-----------|
| 347,0    | 76      | 3,5 | 8,36  | BA72         | 100L/100LA       | 2    | 3984          | 1992      |
| 285,3    | 92      | 2,9 | 10,06 | BA72         | 100L/100LA       | 2    | 4253          | 2127      |
| 248,5    | 104     | 2,8 | 5,71  | BO63         | 100LB/112MS      | 4    | 7836          | 2239      |
| 230,7    | 114     | 2,3 | 12,44 | BA72         | 100L/100LA       | 2    | 4565          | 2283      |
| 218,2    | 114     | 3,9 | 13,15 | BO63         | 100L/100LA       | 2    | 8153          | 2329      |
| 206,4    | 125     | 2,7 | 6,88  | BO63         | 100LB/112MS      | 4    | 8264          | 2361      |
| 193,9    | 133     | 2,6 | 7,32  | BO63         | 100LB/112MS      | 4    | 8412          | 2403      |
| 192,5    | 136     | 2,3 | 14,91 | BA72         | 100L/100LA       | 2    | 4849          | 2424      |
| 189,1    | 132     | 3,4 | 15,18 | BO63         | 100L/100LA       | 2    | 8493          | 2427      |
| 181,8    | 142     | 3,5 | 7,81  | BO83         | 100LB/112MS      | 4    | 13363         | 3818      |
| 169,9    | 160     | 2,2 | 8,36  | BA72         | 100LB/112MS      | 4    | 5055          | 2528      |
| 168,8    | 147     | 3,1 | 17,00 | BO63         | 100L/100LA       | 2    | 8769          | 2505      |
| 164,7    | 157     | 3,8 | 8,62  | BO83         | 100LB/112MS      | 4    | 13767         | 3933      |
| 162,7    | 160     | 1,9 | 5,71  | BO63         | 112MB            | 6    | 8827          | 2522      |
| 160,0    | 164     | 1,9 | 17,94 | BA72         | 100L/100LA       | 2    | 5158          | 2579      |
| 155,0    | 166     | 2,8 | 9,16  | BO63         | 100LB/112MS      | 4    | 8953          | 2558      |
| 141,2    | 193     | 1,8 | 10,06 | BA72         | 100LB/112MS      | 4    | 5377          | 2689      |
| 138,4    | 186     | 2,8 | 10,26 | BO63         | 100LB/112MS      | 4    | 9233          | 2638      |
| 135,3    | 191     | 3,4 | 10,49 | BO83         | 100LB/112MS      | 4    | 14593         | 4170      |
| 135,2    | 193     | 1,9 | 6,88  | BO63         | 112MB            | 6    | 9282          | 2652      |
| 129,3    | 203     | 1,6 | 22,19 | BA72         | 100L/100LA       | 2    | 5537          | 2768      |
| 128,8    | 200     | 2,7 | 11,03 | BO63         | 100LB/112MS      | 4    | 9412          | 2689      |
| 128,2    | 194     | 2,3 | 22,39 | BO63         | 100L/100LA       | 2    | 9455          | 2702      |
| 127,0    | 205     | 1,8 | 7,32  | BO63         | 112MB            | 6    | 9437          | 2696      |
| 125,8    | 198     | 3,2 | 22,82 | BO83         | 100L/100LA       | 2    | 14939         | 4268      |
| 122,5    | 210     | 3,6 | 11,59 | BO83         | 100LB/112MS      | 4    | 15024         | 4293      |
| 119,1    | 219     | 2,4 | 7,81  | BO83         | 112MB/132S/132SA | 6    | 15141         | 4326      |
| 114,9    | 224     | 2,6 | 12,35 | BO63         | 100LB/112MS      | 4    | 9697          | 2771      |
| 114,4    | 228     | 3,7 | 8,13  | B103         | 112MB/132S/132SA | 6    | 18995         | 5427      |
| 114,1    | 238     | 1,5 | 12,44 | BA72         | 100LB/112MS      | 4    | 5772          | 2886      |
| 111,3    | 247     | 1,5 | 8,36  | BA72         | 112MB            | 6    | 5821          | 2910      |
| 110,0    | 226     | 2,0 | 26,09 | BO63         | 100L/100LA       | 2    | 9845          | 2813      |
| 108,0    | 239     | 2,5 | 13,15 | BO63         | 100LB/112MS      | 4    | 9855          | 2816      |
| 107,9    | 241     | 2,6 | 8,62  | BO83         | 112MB/132S/132SA | 6    | 15582         | 4452      |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 3,00 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i     | Gear<br>reducer | Motor            |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|-------|-----------------|------------------|------|------------------------------|--------------------------|
|                         |                        |                |       |                 | Size             | Pole |                              |                          |
| 107,4                   | 232                    | 2,8            | 26,71 | B083            | 100L/100LA       | 2    | 15643                        | 4469                     |
| 104,6                   | 251                    | 1,3            | 27,45 | BA72            | 100L/100LA       | 2    | 5943                         | 2972                     |
| 103,7                   | 251                    | 3,8            | 8,97  | B103            | 112MB/132S/132SA | 6    | 19576                        | 5593                     |
| 102,4                   | 243                    | 1,9            | 28,03 | B063            | 100L/100LA       | 2    | 10030                        | 2866                     |
| 101,5                   | 257                    | 1,9            | 9,16  | B063            | 112MB            | 6    | 10000                        | 2857                     |
| 98,4                    | 262                    | 3,1            | 14,43 | B083            | 100LB/112MS      | 4    | 16007                        | 4573                     |
| 97,3                    | 256                    | 2,5            | 29,50 | B083            | 100L/100LA       | 2    | 16096                        | 4599                     |
| 95,3                    | 286                    | 1,5            | 14,91 | BA72            | 100LB/112MS      | 4    | 6131                         | 3065                     |
| 93,6                    | 276                    | 2,1            | 15,18 | B063            | 100LB/112MS      | 4    | 10218                        | 2919                     |
| 92,4                    | 297                    | 1,2            | 10,06 | BA72            | 112MB            | 6    | 6192                         | 3096                     |
| 90,6                    | 287                    | 1,9            | 10,26 | B063            | 112MB            | 6    | 10287                        | 2939                     |
| 90,3                    | 276                    | 2,3            | 31,80 | B083            | 100L/100LA       | 2    | 16446                        | 4699                     |
| 88,6                    | 294                    | 2,3            | 10,49 | B083            | 112MB/132S/132SA | 6    | 16478                        | 4708                     |
| 86,9                    | 302                    | 1,0            | 33,04 | BA72            | 100L/100LA       | 2    | 6322                         | 3161                     |
| 85,8                    | 290                    | 1,6            | 33,43 | B063            | 100L/100LA       | 2    | 10484                        | 2996                     |
| 85,6                    | 301                    | 2,8            | 16,60 | B083            | 100LB/112MS      | 4    | 16654                        | 4758                     |
| 85,2                    | 306                    | 3,4            | 10,92 | B103            | 112MB/132S/132SA | 6    | 20783                        | 5938                     |
| 84,3                    | 309                    | 1,8            | 11,03 | B063            | 112MB            | 6    | 10468                        | 2991                     |
| 83,5                    | 309                    | 1,9            | 17,00 | B063            | 100LB/112MS      | 4    | 10507                        | 3002                     |
| 83,2                    | 299                    | 2,1            | 34,49 | B083            | 100L/100LA       | 2    | 16829                        | 4808                     |
| 80,3                    | 324                    | 2,4            | 11,59 | B083            | 112MB/132S/132SA | 6    | 16942                        | 4841                     |
| 79,1                    | 344                    | 1,2            | 17,94 | BA72            | 100LB/112MS      | 4    | 6521                         | 3261                     |
| 77,5                    | 333                    | 2,6            | 18,32 | B083            | 100LB/112MS      | 4    | 17121                        | 4892                     |
| 77,2                    | 337                    | 3,1            | 12,05 | B103            | 112MB/132S/132SA | 6    | 21407                        | 6116                     |
| 75,3                    | 346                    | 1,8            | 12,35 | B063            | 112MB            | 6    | 10754                        | 3073                     |
| 74,7                    | 368                    | 1,0            | 12,44 | BA72            | 112MB            | 6    | 6647                         | 3323                     |
| 74,4                    | 334                    | 1,3            | 38,58 | B063            | 100L/100LA       | 2    | 10854                        | 3101                     |
| 72,5                    | 343                    | 1,9            | 39,60 | B083            | 100L/100LA       | 2    | 17490                        | 4997                     |
| 70,7                    | 368                    | 1,7            | 13,15 | B063            | 112MB            | 6    | 10910                        | 3117                     |
| 69,8                    | 357                    | 3,6            | 41,12 | B103            | 100L/100LA       | 2    | 22000                        | 6316                     |
| 66,8                    | 372                    | 1,7            | 42,95 | B083            | 100L/100LA       | 2    | 17886                        | 5110                     |
| 66,4                    | 375                    | 1,2            | 43,22 | B063            | 100L/100LA       | 2    | 11144                        | 3184                     |
| 64,5                    | 404                    | 2,1            | 14,43 | B083            | 112MB/132S/132SA | 6    | 17990                        | 5140                     |
| 64,3                    | 387                    | 3,3            | 44,61 | B103            | 100L/100LA       | 2    | 22000                        | 6471                     |
| 64,0                    | 425                    | 1,0            | 22,19 | BA72            | 100LB/112MS      | 4    | 7000                         | 3500                     |
| 63,4                    | 407                    | 1,5            | 22,39 | B063            | 100LB/112MS      | 4    | 11197                        | 3199                     |
| 63,2                    | 394                    | 1,6            | 45,44 | B083            | 100L/100LA       | 2    | 18000                        | 5189                     |
| 62,4                    | 441                    | 1,0            | 14,91 | BA72            | 112MB            | 6    | 7059                         | 3530                     |
| 62,2                    | 414                    | 2,1            | 22,82 | B083            | 100LB/112MS      | 4    | 18000                        | 5193                     |
| 62,1                    | 420                    | 3,0            | 14,99 | B103            | 112MB/132S/132SA | 6    | 22000                        | 6526                     |
| 61,3                    | 425                    | 1,5            | 15,18 | B063            | 112MB            | 6    | 11262                        | 3218                     |
| 60,7                    | 410                    | 3,1            | 47,28 | B103            | 100L/100LA       | 2    | 22000                        | 6584                     |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 3,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------------------|------|------------------|--------------|
| 59,9        | 430        | 3,3 | 23,70 | B103            | 100LB/112MS      | 4    | 22000            | 6597         |
| 57,1        | 436        | 2,9 | 50,24 | B103            | 100L/100LA       | 2    | 22000            | 6703         |
| 56,5        | 441        | 1,0 | 50,81 | B063            | 100L/100LA       | 2    | 11551            | 3300         |
| 56,1        | 444        | 1,4 | 51,19 | B083            | 100L/100LA       | 2    | 18000            | 5358         |
| 56,0        | 465        | 1,9 | 16,60 | B083            | 112MB/132S/132SA | 6    | 18000            | 5335         |
| 54,7        | 476        | 1,3 | 17,00 | B063            | 112MB            | 6    | 11535            | 3296         |
| 54,4        | 474        | 1,3 | 26,09 | B063            | 100LB/112MS      | 4    | 11568            | 3305         |
| 54,1        | 460        | 2,8 | 53,02 | B103            | 100L/100LA       | 2    | 22000            | 6810         |
| 53,9        | 484        | 3,0 | 17,27 | B103            | 112MB/132S/132SA | 6    | 22000            | 6802         |
| 53,6        | 481        | 3,1 | 26,51 | B103            | 100LB/112MS      | 4    | 22000            | 6817         |
| 53,2        | 485        | 1,8 | 26,71 | B083            | 100LB/112MS      | 4    | 18000            | 5415         |
| 51,7        | 481        | 1,3 | 55,52 | B083            | 100L/100LA       | 2    | 18000            | 5474         |
| 50,8        | 513        | 1,7 | 18,32 | B083            | 112MB/132S/132SA | 6    | 18000            | 5474         |
| 50,7        | 509        | 1,2 | 28,03 | B063            | 100LB/112MS      | 4    | 11738            | 3354         |
| 49,1        | 507        | 2,5 | 58,50 | B103            | 100L/100LA       | 2    | 22000            | 7008         |
| 48,8        | 534        | 2,8 | 19,06 | B103            | 112MB/132S/132SA | 6    | 22000            | 6999         |
| 48,1        | 536        | 1,6 | 29,50 | B083            | 100LB/112MS      | 4    | 18000            | 5555         |
| 47,9        | 520        | 1,2 | 59,96 | B083            | 100L/100LA       | 2    | 18000            | 5585         |
| 46,5        | 555        | 2,9 | 30,55 | B103            | 100LB/112MS      | 4    | 22000            | 7103         |
| 45,0        | 553        | 1,2 | 63,74 | B083            | 100L/100LA       | 2    | 18000            | 5673         |
| 44,7        | 577        | 1,5 | 31,80 | B083            | 100LB/112MS      | 4    | 18000            | 5661         |
| 44,2        | 563        | 2,3 | 64,89 | B103            | 100L/100LA       | 2    | 22000            | 7221         |
| 42,9        | 600        | 2,8 | 33,07 | B103            | 100LB/112MS      | 4    | 22000            | 7265         |
| 42,5        | 607        | 1,0 | 33,43 | B063            | 100LB/112MS      | 4    | 12000            | 3467         |
| 41,9        | 595        | 2,1 | 68,58 | B103            | 100L/100LA       | 2    | 22000            | 7336         |
| 41,5        | 627        | 1,0 | 22,39 | B063            | 112MB            | 6    | 12000            | 3473         |
| 41,5        | 599        | 1,1 | 69,14 | B083            | 100L/100LA       | 2    | 18000            | 5791         |
| 41,2        | 626        | 1,4 | 34,49 | B083            | 100LB/112MS      | 4    | 18000            | 5777         |
| 40,8        | 639        | 1,4 | 22,82 | B083            | 112MB/132S/132SA | 6    | 18000            | 5784         |
| 39,6        | 651        | 2,6 | 35,87 | B103            | 100LB/112MS      | 4    | 22000            | 7434         |
| 39,4        | 631        | 2,0 | 72,76 | B103            | 100L/100LA       | 2    | 22000            | 7460         |
| 39,2        | 634        | 1,0 | 73,14 | B083            | 100L/100LA       | 2    | 18000            | 5872         |
| 39,2        | 664        | 2,2 | 23,70 | B103            | 112MB/132S/132SA | 6    | 22000            | 7447         |
| 36,4        | 684        | 1,9 | 78,92 | B103            | 100L/100LA       | 2    | 22000            | 7634         |
| 35,9        | 719        | 1,2 | 39,60 | B083            | 100LB/112MS      | 4    | 18000            | 5973         |
| 35,9        | 694        | 3,8 | 80,04 | B123            | 100L/100LA       | 2    | 30000            | 10773        |
| 35,1        | 742        | 2,1 | 26,51 | B103            | 112MB/132S/132SA | 6    | 22000            | 7684         |
| 35,0        | 736        | 3,8 | 40,53 | B123            | 100LB/112MS      | 4    | 30000            | 10808        |
| 34,9        | 746        | 3,9 | 27,51 | B123            | 132S/132SA       | 6    | 30000            | 10809        |
| 34,8        | 748        | 1,2 | 26,71 | B083            | 112MB/132S/132SA | 6    | 18000            | 6006         |
| 34,5        | 747        | 2,3 | 41,12 | B103            | 100LB/112MS      | 4    | 22000            | 7723         |
| 34,3        | 725        | 1,9 | 83,66 | B103            | 100L/100LA       | 2    | 22000            | 7759         |



## 3,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
| 33,1        | 780        | 1,1 | 42,95  | B083            | 100LB/112MS      | 4    | 18000            | 6088         |
| 31,9        | 779        | 3,4 | 89,87  | B123            | 100L/100LA       | 2    | 30000            | 11116        |
| 31,8        | 810        | 2,1 | 44,61  | B103            | 100LB/112MS      | 4    | 22000            | 7898         |
| 31,6        | 815        | 3,7 | 44,89  | B123            | 100LB/112MS      | 4    | 30000            | 11107        |
| 31,5        | 826        | 1,1 | 29,50  | B083            | 112MB/132S/132SA | 6    | 18000            | 6145         |
| 31,3        | 825        | 1,0 | 45,44  | B083            | 100LB/112MS      | 4    | 18000            | 6166         |
| 31,2        | 835        | 3,5 | 30,79  | B123            | 132S/132SA       | 6    | 30000            | 11139        |
| 31,1        | 800        | 1,7 | 92,31  | B103            | 100L/100LA       | 2    | 22000            | 7973         |
| 30,4        | 856        | 2,0 | 30,55  | B103            | 112MB/132S/132SA | 6    | 22000            | 7988         |
| 30,0        | 859        | 2,0 | 47,28  | B103            | 100LB/112MS      | 4    | 22000            | 8025         |
| 29,7        | 875        | 3,4 | 31,26  | B123            | 112MB/132S/132SA | 6    | 30000            | 11278        |
| 29,2        | 890        | 1,0 | 31,80  | B083            | 112MB/132S/132SA | 6    | 18000            | 6248         |
| 28,8        | 864        | 3,0 | 99,70  | B123            | 100L/100LA       | 2    | 30000            | 11427        |
| 28,5        | 904        | 3,5 | 49,80  | B123            | 100LB/112MS      | 4    | 30000            | 11415        |
| 28,3        | 912        | 1,9 | 50,24  | B103            | 100LB/112MS      | 4    | 22000            | 8157         |
| 28,1        | 926        | 1,9 | 33,07  | B103            | 112MB/132S/132SA | 6    | 22000            | 8160         |
| 27,7        | 929        | 0,9 | 51,19  | B083            | 100LB/112MS      | 4    | 18000            | 6331         |
| 27,2        | 914        | 1,5 | 105,44 | B103            | 100L/100LA       | 2    | 22000            | 8267         |
| 27,0        | 966        | 0,9 | 34,49  | B083            | 112MB/132S/132SA | 6    | 18000            | 6359         |
| 26,9        | 925        | 2,8 | 106,65 | B123            | 100L/100LA       | 2    | 30000            | 11631        |
| 26,8        | 963        | 1,8 | 53,02  | B103            | 100LB/112MS      | 4    | 22000            | 8275         |
| 26,8        | 971        | 3,0 | 34,68  | B123            | 112MB/132S/132SA | 6    | 30000            | 11585        |
| 26,2        | 986        | 3,2 | 54,30  | B123            | 100LB/112MS      | 4    | 30000            | 11672        |
| 25,9        | 1004       | 1,8 | 35,87  | B103            | 112MB/132S/132SA | 6    | 22000            | 8339         |
| 25,6        | 970        | 3,9 | 111,94 | B143            | 100L/100LA       | 2    | 39701            | 39701        |
| 25,0        | 995        | 1,4 | 114,80 | B103            | 100L/100LA       | 2    | 22000            | 8457         |
| 24,3        | 1062       | 1,6 | 58,50  | B103            | 100LB/112MS      | 4    | 22000            | 8493         |
| 24,0        | 1037       | 2,5 | 119,60 | B123            | 100L/100LA       | 2    | 30000            | 11978        |
| 23,9        | 1078       | 3,0 | 59,36  | B123            | 100LB/112MS      | 4    | 30000            | 11938        |
| 23,8        | 1044       | 1,3 | 120,42 | B103            | 100L/100LA       | 2    | 22000            | 8564         |
| 23,0        | 1080       | 3,5 | 124,62 | B143            | 100L/100LA       | 2    | 40000            | 40000        |
| 22,9        | 1135       | 2,6 | 40,53  | B123            | 112MB/132S/132SA | 6    | 30000            | 12048        |
| 22,7        | 1136       | 2,9 | 62,59  | B123            | 100LB/112MS      | 4    | 30000            | 12097        |
| 22,6        | 1152       | 1,6 | 41,12  | B103            | 112MB/132S/132SA | 6    | 22000            | 8640         |
| 22,1        | 1127       | 2,3 | 129,96 | B123            | 100L/100LA       | 2    | 30000            | 12231        |
| 21,9        | 1178       | 1,4 | 64,89  | B103            | 100LB/112MS      | 4    | 22000            | 8723         |
| 21,6        | 1152       | 1,2 | 132,87 | B103            | 100L/100LA       | 2    | 22000            | 8787         |
| 21,0        | 1183       | 3,2 | 136,44 | B143            | 100L/100LA       | 2    | 40000            | 40000        |
| 20,8        | 1249       | 1,4 | 44,61  | B103            | 112MB/132S/132SA | 6    | 22000            | 8821         |
| 20,7        | 1245       | 1,4 | 68,58  | B103            | 100LB/112MS      | 4    | 22000            | 8846         |
| 20,7        | 1257       | 2,5 | 44,89  | B123            | 112MB/132S/132SA | 6    | 30000            | 12352        |
| 20,5        | 1261       | 2,6 | 69,43  | B123            | 100LB/112MS      | 4    | 30000            | 12407        |

## 3,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor            |      | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
|             |            |     |        |                 | Size             | Pole |                  |              |
| 20,2        | 1279       | 3,9 | 70,43  | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 19,9        | 1252       | 2,1 | 144,43 | B123            | 100L/100LA       | 2    | 30000            | 12553        |
| 19,8        | 1254       | 1,1 | 144,69 | B103            | 100L/100LA       | 2    | 22000            | 8980         |
| 19,7        | 1324       | 1,3 | 47,28  | B103            | 112MB/132S/132SA | 6    | 22000            | 8951         |
| 19,5        | 1321       | 1,3 | 72,76  | B103            | 100LB/112MS      | 4    | 22000            | 8979         |
| 19,2        | 1354       | 3,9 | 48,35  | B143            | 112MB            | 6    | 40000            | 40000        |
| 19,2        | 1297       | 2,9 | 149,59 | B143            | 100L/100LA       | 2    | 40000            | 40000        |
| 19,1        | 1351       | 2,6 | 74,42  | B123            | 100LB/112MS      | 4    | 30000            | 12614        |
| 18,7        | 1395       | 2,4 | 49,80  | B123            | 112MB/132S/132SA | 6    | 30000            | 12660        |
| 18,5        | 1407       | 1,3 | 50,24  | B103            | 112MB/132S/132SA | 6    | 22000            | 9086         |
| 18,4        | 1400       | 3,6 | 77,12  | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 18,0        | 1433       | 1,2 | 78,92  | B103            | 100LB/112MS      | 4    | 22000            | 9161         |
| 17,9        | 1389       | 1,9 | 160,23 | B123            | 100L/100LA       | 2    | 30000            | 12867        |
| 17,7        | 1453       | 2,4 | 80,04  | B123            | 100LB/112MS      | 4    | 30000            | 12830        |
| 17,5        | 1485       | 1,2 | 53,02  | B103            | 112MB/132S/132SA | 6    | 22000            | 9205         |
| 17,5        | 1489       | 3,5 | 53,16  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 17,2        | 1444       | 2,6 | 166,53 | B143            | 100L/100LA       | 2    | 40000            | 40000        |
| 17,1        | 1521       | 2,2 | 54,30  | B123            | 112MB/132S/132SA | 6    | 30000            | 12914        |
| 17,0        | 1519       | 1,2 | 83,66  | B103            | 100LB/112MS      | 4    | 22000            | 9291         |
| 17,0        | 1530       | 3,4 | 54,63  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 16,6        | 1553       | 3,2 | 85,54  | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 15,9        | 1638       | 1,1 | 58,50  | B103            | 112MB/132S/132SA | 6    | 22000            | 9423         |
| 15,9        | 1564       | 1,7 | 180,40 | B123            | 100L/100LA       | 2    | 30000            | 13224        |
| 15,8        | 1632       | 2,1 | 89,87  | B123            | 100LB/112MS      | 4    | 30000            | 13169        |
| 15,8        | 1653       | 3,2 | 59,02  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 15,7        | 1662       | 2,0 | 59,36  | B123            | 112MB/132S/132SA | 6    | 30000            | 13172        |
| 15,4        | 1676       | 1,1 | 92,31  | B103            | 100LB/112MS      | 4    | 22000            | 9509         |
| 15,3        | 1623       | 2,3 | 187,24 | B143            | 100L/100LA       | 2    | 40000            | 40000        |
| 15,1        | 1709       | 2,9 | 94,13  | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 14,9        | 1753       | 2,0 | 62,59  | B123            | 112MB/132S/132SA | 6    | 30000            | 13324        |
| 14,3        | 1817       | 1,0 | 64,89  | B103            | 112MB/132S/132SA | 6    | 22000            | 9651         |
| 14,3        | 1817       | 2,9 | 64,88  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 14,2        | 1810       | 1,9 | 99,70  | B123            | 100LB/112MS      | 4    | 30000            | 13469        |
| 13,6        | 1920       | 0,9 | 68,58  | B103            | 112MB/132S/132SA | 6    | 22000            | 9771         |
| 13,5        | 1915       | 0,9 | 105,44 | B103            | 100LB/112MS      | 4    | 22000            | 9802         |
| 13,4        | 1944       | 1,8 | 69,43  | B123            | 112MB/132S/132SA | 6    | 30000            | 13617        |
| 13,4        | 1922       | 2,6 | 105,83 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 13,3        | 1937       | 1,8 | 106,65 | B123            | 100LB/112MS      | 4    | 30000            | 13659        |
| 13,2        | 1974       | 0,9 | 72,76  | B103            | 132S/132SA       | 6    | 22000            | 9830         |
| 13,2        | 1972       | 2,7 | 70,43  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 12,7        | 2033       | 2,5 | 111,94 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 12,5        | 2084       | 1,8 | 74,42  | B123            | 112MB/132S/132SA | 6    | 30000            | 13808        |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 3,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
| 12,1        | 2160       | 2,4 | 77,12  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 11,9        | 2172       | 1,6 | 119,60 | B123            | 100LB/112MS      | 4    | 30000            | 13975        |
| 11,6        | 2241       | 1,6 | 80,04  | B123            | 112MB/132S/132SA | 6    | 30000            | 14004        |
| 11,4        | 2263       | 2,2 | 124,62 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 11,4        | 2276       | 3,7 | 83,89  | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 11,0        | 2378       | 3,5 | 87,65  | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 10,9        | 2360       | 1,5 | 129,96 | B123            | 100LB/112MS      | 4    | 30000            | 14196        |
| 10,9        | 2396       | 2,2 | 85,54  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 10,4        | 2478       | 2,0 | 136,44 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 10,3        | 2517       | 1,5 | 89,87  | B123            | 112MB/132S/132SA | 6    | 30000            | 14303        |
| 10,3        | 2524       | 3,3 | 93,05  | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 9,9         | 2636       | 2,0 | 94,13  | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 9,8         | 2623       | 1,3 | 144,43 | B123            | 100LB/112MS      | 4    | 30000            | 14464        |
| 9,5         | 2716       | 1,8 | 149,59 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 9,3         | 2792       | 1,3 | 99,70  | B123            | 112MB/132S/132SA | 6    | 30000            | 14555        |
| 9,3         | 2797       | 3,0 | 103,12 | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 8,9         | 2909       | 1,2 | 160,23 | B123            | 100LB/112MS      | 4    | 30000            | 14711        |
| 8,8         | 2964       | 1,8 | 105,83 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 8,7         | 2987       | 1,2 | 106,65 | B123            | 112MB/132S/132SA | 6    | 30000            | 14709        |
| 8,5         | 3024       | 1,7 | 166,53 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 8,3         | 3135       | 1,7 | 111,94 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 7,9         | 3276       | 1,1 | 180,40 | B123            | 100LB/112MS      | 4    | 30000            | 14970        |
| 7,8         | 3349       | 1,1 | 119,60 | B123            | 112MB/132S/132SA | 6    | 30000            | 14951        |
| 7,7         | 3361       | 2,5 | 123,88 | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 7,6         | 3400       | 1,5 | 187,24 | B143            | 100LB/112MS      | 4    | 40000            | 40000        |
| 7,5         | 3490       | 1,5 | 124,62 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 7,2         | 3639       | 1,0 | 129,96 | B123            | 112MB/132S/132SA | 6    | 30000            | 15108        |
| 7,2         | 3642       | 2,3 | 134,27 | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 6,8         | 3821       | 1,4 | 136,44 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 6,4         | 4044       | 0,9 | 144,43 | B123            | 112MB/132S/132SA | 6    | 30000            | 15281        |
| 6,4         | 4049       | 2,1 | 149,26 | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 6,2         | 4189       | 1,3 | 149,59 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 5,8         | 4487       | 1,9 | 165,42 | B153            | 132S/132SA       | 6    | 65000            | 65000        |
| 5,6         | 4663       | 1,1 | 166,53 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |
| 5,0         | 5243       | 1,0 | 187,24 | B143            | 112MB/132S/132SA | 6    | 40000            | 40000        |

## 4,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i    | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|------|-----------------|------------------|------|------------------|--------------|
| 502,2       | 66         | 3,3 | 5,71 | B063            | 100LB/112M/112MA | 2    | 6285             | 1796         |
| 417,2       | 80         | 3,2 | 6,88 | B063            | 100LB/112M/112MA | 2    | 6640             | 1897         |
| 391,9       | 85         | 3,1 | 7,32 | B063            | 100LB/112M/112MA | 2    | 6763             | 1932         |

## 4,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------------------|------|------------------|--------------|
| 343,4       | 102        | 2,6 | 8,36  | BA72            | 100LB/112M/112MA | 2    | 3998             | 1999         |
| 313,3       | 106        | 3,3 | 9,16  | B063            | 100LB/112M/112MA | 2    | 7215             | 2061         |
| 285,3       | 123        | 2,1 | 10,06 | BA72            | 100LB/112M/112MA | 2    | 4253             | 2127         |
| 279,6       | 119        | 3,3 | 10,26 | B063            | 100LB/112M/112MA | 2    | 7451             | 2129         |
| 260,3       | 127        | 3,2 | 11,03 | B063            | 100LB/112M/112MA | 2    | 7603             | 2172         |
| 253,7       | 136        | 2,1 | 5,71  | B063            | 112M/112MA       | 4    | 7635             | 2182         |
| 232,3       | 143        | 3,0 | 12,35 | B063            | 100LB/112M/112MA | 2    | 7846             | 2242         |
| 230,7       | 152        | 1,7 | 12,44 | BA72            | 100LB/112M/112MA | 2    | 4565             | 2283         |
| 218,2       | 152        | 2,9 | 13,15 | B063            | 100LB/112M/112MA | 2    | 7981             | 2280         |
| 209,3       | 164        | 2,1 | 6,88  | B063            | 112M/112MA       | 4    | 8046             | 2299         |
| 198,9       | 167        | 3,6 | 14,43 | B083            | 100LB/112M/112MA | 2    | 12856            | 3673         |
| 196,6       | 175        | 2,0 | 7,32  | B063            | 112M/112MA       | 4    | 8182             | 2338         |
| 192,5       | 182        | 1,7 | 14,91 | BA72            | 100LB/112M/112MA | 2    | 4849             | 2424         |
| 189,1       | 175        | 2,5 | 15,18 | B063            | 100LB/112M/112MA | 2    | 8295             | 2370         |
| 184,4       | 186        | 2,7 | 7,81  | B083            | 112M/112MA       | 4    | 13119            | 3748         |
| 172,9       | 192        | 3,3 | 16,60 | B083            | 100LB/112M/112MA | 2    | 13393            | 3827         |
| 172,3       | 211        | 1,7 | 8,36  | BA72            | 112M/112MA       | 4    | 5032             | 2516         |
| 168,8       | 197        | 2,3 | 17,00 | B063            | 100LB/112M/112MA | 2    | 8547             | 2442         |
| 167,0       | 206        | 2,9 | 8,62  | B083            | 112M/112MA       | 4    | 13501            | 3857         |
| 160,0       | 219        | 1,4 | 17,94 | BA72            | 100LB/112M/112MA | 2    | 5158             | 2579         |
| 157,2       | 219        | 2,1 | 9,16  | B063            | 112M/112MA       | 4    | 8671             | 2478         |
| 156,6       | 212        | 3,0 | 18,32 | B083            | 100LB/112M/112MA | 2    | 13783            | 3938         |
| 143,1       | 254        | 1,4 | 10,06 | BA72            | 112M/112MA       | 4    | 5352             | 2676         |
| 140,3       | 245        | 2,1 | 10,26 | B063            | 112M/112MA       | 4    | 8922             | 2549         |
| 137,2       | 251        | 2,6 | 10,49 | B083            | 112M/112MA       | 4    | 14280            | 4080         |
| 131,9       | 261        | 3,8 | 10,92 | B103            | 112M/112MA       | 4    | 18002            | 5143         |
| 130,6       | 263        | 2,1 | 11,03 | B063            | 112M/112MA       | 4    | 9080             | 2594         |
| 129,3       | 271        | 1,2 | 22,19 | BA72            | 100LB/112M/112MA | 2    | 5537             | 2768         |
| 128,2       | 259        | 1,7 | 22,39 | B063            | 100LB/112M/112MA | 2    | 9163             | 2618         |
| 125,8       | 264        | 2,4 | 22,82 | B083            | 100LB/112M/112MA | 2    | 14672            | 4192         |
| 124,3       | 277        | 2,7 | 11,59 | B083            | 112M/112MA       | 4    | 14683            | 4195         |
| 122,9       | 282        | 1,9 | 7,81  | B083            | 132MA            | 6    | 14716            | 4205         |
| 121,1       | 274        | 3,8 | 23,70 | B103            | 100LB/112M/112MA | 2    | 18498            | 5285         |
| 119,5       | 288        | 3,5 | 12,05 | B103            | 112M/112MA       | 4    | 18543            | 5298         |
| 118,1       | 294        | 2,9 | 8,13  | B103            | 132MA            | 6    | 18600            | 5314         |
| 116,6       | 295        | 2,0 | 12,35 | B063            | 112M/112MA       | 4    | 9329             | 2666         |
| 115,7       | 314        | 1,1 | 12,44 | BA72            | 112M/112MA       | 4    | 5745             | 2873         |
| 111,3       | 312        | 2,0 | 8,62  | B083            | 132MA            | 6    | 15124            | 4321         |
| 110,0       | 302        | 1,5 | 26,09 | B063            | 100LB/112M/112MA | 2    | 9505             | 2716         |
| 109,5       | 314        | 1,9 | 13,15 | B063            | 112M/112MA       | 4    | 9466             | 2704         |
| 108,2       | 306        | 3,7 | 26,51 | B103            | 100LB/112M/112MA | 2    | 19132            | 5466         |
| 107,4       | 309        | 2,1 | 26,71 | B083            | 100LB/112M/112MA | 2    | 15331            | 4380         |

## 4,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------------------|------|------------------|--------------|
| 107,1       | 324        | 2,9 | 8,97  | B103            | 132MA            | 6    | 19154            | 5473         |
| 102,4       | 324        | 1,4 | 28,03 | B063            | 100LB/112M/112MA | 2    | 9664             | 2761         |
| 99,8        | 344        | 2,4 | 14,43 | B083            | 112M/112MA       | 4    | 15595            | 4456         |
| 97,3        | 341        | 1,9 | 29,50 | B083            | 100LB/112M/112MA | 2    | 15752            | 4500         |
| 96,6        | 376        | 1,1 | 14,91 | BA72            | 112M/112MA       | 4    | 6102             | 3051         |
| 96,1        | 358        | 3,4 | 14,99 | B103            | 112M/112MA       | 4    | 19787            | 5653         |
| 94,9        | 362        | 1,6 | 15,18 | B063            | 112M/112MA       | 4    | 9774             | 2793         |
| 93,9        | 353        | 3,4 | 30,55 | B103            | 100LB/112M/112MA | 2    | 19957            | 5702         |
| 91,5        | 380        | 1,8 | 10,49 | B083            | 132MA            | 6    | 15948            | 4556         |
| 90,3        | 368        | 1,7 | 31,80 | B083            | 100LB/112M/112MA | 2    | 16074            | 4593         |
| 87,9        | 395        | 2,7 | 10,92 | B103            | 132MA            | 6    | 20301            | 5800         |
| 86,8        | 396        | 2,1 | 16,60 | B083            | 112M/112MA       | 4    | 16188            | 4625         |
| 86,8        | 382        | 3,3 | 33,07 | B103            | 100LB/112M/112MA | 2    | 20428            | 5836         |
| 85,8        | 386        | 1,2 | 33,43 | B063            | 100LB/112M/112MA | 2    | 10048            | 2871         |
| 84,7        | 406        | 1,5 | 17,00 | B063            | 112M/112MA       | 4    | 10013            | 2861         |
| 83,4        | 412        | 3,4 | 17,27 | B103            | 112M/112MA       | 4    | 20628            | 5894         |
| 83,2        | 399        | 1,6 | 34,49 | B083            | 100LB/112M/112MA | 2    | 16426            | 4693         |
| 82,9        | 419        | 1,9 | 11,59 | B083            | 132MA            | 6    | 16369            | 4677         |
| 80,3        | 452        | 0,9 | 17,94 | BA72            | 112M/112MA       | 4    | 6491             | 3246         |
| 80,0        | 415        | 3,1 | 35,87 | B103            | 100LB/112M/112MA | 2    | 20920            | 5977         |
| 79,7        | 436        | 2,4 | 12,05 | B103            | 132MA            | 6    | 20891            | 5969         |
| 78,6        | 437        | 1,9 | 18,32 | B083            | 112M/112MA       | 4    | 16612            | 4746         |
| 75,6        | 455        | 3,1 | 19,06 | B103            | 112M/112MA       | 4    | 21225            | 6064         |
| 74,4        | 446        | 1,0 | 38,58 | B063            | 100LB/112M/112MA | 2    | 10350            | 2957         |
| 72,5        | 458        | 1,4 | 39,60 | B083            | 100LB/112M/112MA | 2    | 17027            | 4865         |
| 69,8        | 475        | 2,7 | 41,12 | B103            | 100LB/112M/112MA | 2    | 21766            | 6219         |
| 66,8        | 497        | 1,3 | 42,95 | B083            | 100LB/112M/112MA | 2    | 17384            | 4967         |
| 66,5        | 522        | 1,6 | 14,43 | B083            | 132MA            | 6    | 17309            | 4945         |
| 64,3        | 535        | 1,1 | 22,39 | B063            | 112M/112MA       | 4    | 10559            | 3017         |
| 64,3        | 516        | 2,5 | 44,61 | B103            | 100LB/112M/112MA | 2    | 22000            | 6366         |
| 64,1        | 542        | 2,3 | 14,99 | B103            | 132MA            | 6    | 22000            | 6354         |
| 63,2        | 525        | 1,2 | 45,44 | B083            | 100LB/112M/112MA | 2    | 17631            | 5038         |
| 63,1        | 545        | 1,6 | 22,82 | B083            | 112M/112MA       | 4    | 17558            | 5017         |
| 62,4        | 556        | 4,0 | 15,38 | B123            | 132MA            | 6    | 30000            | 9001         |
| 60,8        | 566        | 2,5 | 23,70 | B103            | 112M/112MA       | 4    | 22000            | 6454         |
| 60,7        | 547        | 2,3 | 47,28 | B103            | 100LB/112M/112MA | 2    | 22000            | 6472         |
| 57,8        | 600        | 1,5 | 16,60 | B083            | 132MA            | 6    | 17909            | 5117         |
| 57,1        | 581        | 2,2 | 50,24 | B103            | 100LB/112M/112MA | 2    | 22000            | 6584         |
| 56,1        | 592        | 1,1 | 51,19 | B083            | 100LB/112M/112MA | 2    | 18000            | 5187         |
| 55,6        | 625        | 2,4 | 17,27 | B103            | 132MA            | 6    | 22000            | 6612         |
| 55,2        | 623        | 1,0 | 26,09 | B063            | 112M/112MA       | 4    | 10832            | 3095         |
| 54,3        | 633        | 2,4 | 26,51 | B103            | 112M/112MA       | 4    | 22000            | 6659         |

## 4,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------------------|------|------------------|--------------|
| 54,1        | 613        | 2,1 | 53,02 | B103            | 100LB/112M/112MA | 2    | 22000            | 6684         |
| 53,9        | 638        | 1,3 | 26,71 | B083            | 112M/112MA       | 4    | 18000            | 5211         |
| 52,9        | 628        | 3,8 | 54,30 | B123            | 100LB/112M/112MA | 2    | 30000            | 9456         |
| 52,4        | 663        | 1,3 | 18,32 | B083            | 132MA            | 6    | 18000            | 5238         |
| 52,2        | 635        | 1,0 | 55,52 | B083            | 112M/112MA       | 2    | 18000            | 5276         |
| 51,7        | 665        | 0,9 | 28,03 | B063            | 112M             | 4    | 10939            | 3125         |
| 51,7        | 672        | 3,4 | 18,58 | B123            | 132MA            | 6    | 30000            | 9474         |
| 50,4        | 689        | 2,1 | 19,06 | B103            | 132MA            | 6    | 22000            | 6794         |
| 49,1        | 676        | 1,9 | 58,50 | B103            | 100LB/112M/112MA | 2    | 22000            | 6869         |
| 48,8        | 704        | 1,2 | 29,50 | B083            | 112M/112MA       | 4    | 18000            | 5331         |
| 48,4        | 686        | 3,5 | 59,36 | B123            | 100LB/112M/112MA | 2    | 30000            | 9685         |
| 47,1        | 729        | 2,2 | 30,55 | B103            | 112M/112MA       | 4    | 22000            | 6924         |
| 46,6        | 745        | 3,5 | 20,61 | B123            | 132MA            | 6    | 30000            | 9739         |
| 46,1        | 746        | 3,8 | 31,26 | B123            | 112M/112MA       | 4    | 30000            | 9777         |
| 45,9        | 723        | 3,4 | 62,59 | B123            | 100LB/112M/112MA | 2    | 30000            | 9823         |
| 45,3        | 759        | 1,1 | 31,80 | B083            | 112M/112MA       | 4    | 18000            | 5422         |
| 44,2        | 750        | 1,7 | 64,89 | B103            | 100LB/112M/112MA | 2    | 22000            | 7067         |
| 43,5        | 789        | 2,2 | 33,07 | B103            | 112M/112MA       | 4    | 22000            | 7074         |
| 42,1        | 825        | 1,1 | 22,82 | B083            | 132MA            | 6    | 18000            | 5501         |
| 42,1        | 824        | 3,6 | 22,78 | B123            | 132MA            | 6    | 30000            | 9996         |
| 41,9        | 793        | 1,6 | 68,58 | B103            | 100LB/112M/112MA | 2    | 22000            | 7173         |
| 41,7        | 823        | 1,0 | 34,49 | B083            | 112M/112MA       | 4    | 18000            | 5519         |
| 41,5        | 828        | 3,4 | 34,68 | B123            | 112M/112MA       | 4    | 30000            | 10045        |
| 41,3        | 803        | 3,1 | 69,43 | B123            | 100LB/112M/112MA | 2    | 30000            | 10095        |
| 40,5        | 857        | 1,7 | 23,70 | B103            | 132MA            | 6    | 22000            | 7205         |
| 40,1        | 856        | 2,0 | 35,87 | B103            | 112M/112MA       | 4    | 22000            | 7229         |
| 39,4        | 841        | 1,5 | 72,76 | B103            | 100LB/112M/112MA | 2    | 22000            | 7288         |
| 38,6        | 860        | 3,1 | 74,42 | B123            | 100LB/112M/112MA | 2    | 30000            | 10277        |
| 37,1        | 936        | 3,1 | 25,89 | B123            | 132MA            | 6    | 30000            | 10326        |
| 36,6        | 939        | 0,9 | 39,60 | B083            | 112M             | 4    | 18000            | 5672         |
| 36,4        | 912        | 1,4 | 78,92 | B103            | 100LB/112M/112MA | 2    | 22000            | 7446         |
| 36,2        | 959        | 1,6 | 26,51 | B103            | 132MA            | 6    | 22000            | 7420         |
| 35,9        | 966        | 0,9 | 26,71 | B083            | 132MA            | 6    | 18000            | 5682         |
| 35,9        | 925        | 2,8 | 80,04 | B123            | 100LB/112M/112MA | 2    | 30000            | 10469        |
| 35,5        | 968        | 2,9 | 40,53 | B123            | 112M/112MA       | 4    | 30000            | 10449        |
| 35,0        | 982        | 1,7 | 41,12 | B103            | 112M/112MA       | 4    | 22000            | 7492         |
| 34,9        | 995        | 3,0 | 27,51 | B123            | 132MA            | 6    | 30000            | 10483        |
| 34,3        | 967        | 1,4 | 83,66 | B103            | 100LB/112M/112MA | 2    | 22000            | 7560         |
| 33,5        | 989        | 3,8 | 85,54 | B143            | 100LB/112M/112MA | 2    | 36008            | 36008        |
| 32,3        | 1065       | 1,6 | 44,61 | B103            | 112M/112MA       | 4    | 22000            | 7649         |
| 32,1        | 1072       | 2,8 | 44,89 | B123            | 112M/112MA       | 4    | 30000            | 10714        |
| 31,9        | 1039       | 2,5 | 89,87 | B123            | 100LB/112M/112MA | 2    | 30000            | 10775        |

## 4,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
| 31,4        | 1105       | 1,5 | 30,55  | B103            | 132MA            | 6    | 22000            | 7693         |
| 31,2        | 1114       | 2,6 | 30,79  | B123            | 132MA            | 6    | 30000            | 10774        |
| 31,1        | 1067       | 1,3 | 92,31  | B103            | 100LB/112M/112MA | 2    | 22000            | 7754         |
| 30,7        | 1131       | 2,6 | 31,26  | B123            | 132MA            | 6    | 30000            | 10813        |
| 30,5        | 1129       | 1,5 | 47,28  | B103            | 112M/112MA       | 4    | 22000            | 7762         |
| 30,5        | 1088       | 3,4 | 94,13  | B143            | 100LB/112M/112MA | 2    | 36947            | 36947        |
| 29,0        | 1196       | 1,5 | 33,07  | B103            | 132MA            | 6    | 22000            | 7845         |
| 28,9        | 1189       | 2,7 | 49,80  | B123            | 112M/112MA       | 4    | 30000            | 10983        |
| 28,8        | 1152       | 2,3 | 99,70  | B123            | 100LB/112M/112MA | 2    | 30000            | 11049        |
| 28,7        | 1199       | 1,4 | 50,24  | B103            | 112M/112MA       | 4    | 22000            | 7880         |
| 27,7        | 1255       | 2,3 | 34,68  | B123            | 132MA            | 6    | 30000            | 11079        |
| 27,2        | 1266       | 1,3 | 53,02  | B103            | 112M/112MA       | 4    | 22000            | 7984         |
| 27,2        | 1219       | 1,1 | 105,44 | B103            | 100LB/112M/112MA | 2    | 22000            | 8017         |
| 27,1        | 1269       | 3,9 | 53,16  | B143            | 112M/112MA       | 4    | 37978            | 37978        |
| 27,1        | 1223       | 3,1 | 105,83 | B143            | 100LB/112M/112MA | 2    | 38109            | 38109        |
| 26,9        | 1233       | 2,1 | 106,65 | B123            | 100LB/112M/112MA | 2    | 30000            | 11226        |
| 26,8        | 1297       | 1,4 | 35,87  | B103            | 132MA            | 6    | 22000            | 8002         |
| 26,5        | 1296       | 2,5 | 54,30  | B123            | 112M/112MA       | 4    | 30000            | 11205        |
| 26,4        | 1304       | 3,8 | 54,63  | B143            | 112M/112MA       | 4    | 38246            | 38246        |
| 26,2        | 1326       | 3,8 | 36,67  | B143            | 132MA            | 6    | 38273            | 38273        |
| 25,6        | 1294       | 2,9 | 111,94 | B143            | 100LB/112M/112MA | 2    | 38669            | 38669        |
| 25,0        | 1327       | 1,0 | 114,80 | B103            | 100LB/112M/112MA | 2    | 22000            | 8184         |
| 24,6        | 1397       | 1,2 | 58,50  | B103            | 112M/112MA       | 4    | 22000            | 8175         |
| 24,4        | 1409       | 3,5 | 59,02  | B143            | 112M/112MA       | 4    | 39007            | 39007        |
| 24,3        | 1417       | 2,3 | 59,36  | B123            | 112M/112MA       | 4    | 30000            | 11431        |
| 24,0        | 1383       | 1,9 | 119,60 | B123            | 100LB/112M/112MA | 2    | 30000            | 11525        |
| 23,8        | 1457       | 3,5 | 40,29  | B143            | 132MA            | 6    | 39195            | 39195        |
| 23,7        | 1466       | 2,0 | 40,53  | B123            | 132MA            | 6    | 30000            | 11472        |
| 23,3        | 1487       | 1,2 | 41,12  | B103            | 132MA            | 6    | 22000            | 8265         |
| 23,0        | 1494       | 2,2 | 62,59  | B123            | 112M/112MA       | 4    | 30000            | 11564        |
| 23,0        | 1441       | 2,6 | 124,62 | B143            | 100LB/112M/112MA | 2    | 39744            | 39744        |
| 22,2        | 1549       | 1,1 | 64,89  | B103            | 112M/112MA       | 4    | 22000            | 8374         |
| 22,2        | 1549       | 3,2 | 64,88  | B143            | 112M/112MA       | 4    | 39942            | 39942        |
| 22,1        | 1502       | 1,7 | 129,96 | B123            | 100LB/112M/112MA | 2    | 30000            | 11738        |
| 21,7        | 1597       | 3,2 | 44,16  | B143            | 132MA            | 6    | 40000            | 40000        |
| 21,5        | 1614       | 1,1 | 44,61  | B103            | 132MA            | 6    | 22000            | 8419         |
| 21,4        | 1624       | 1,9 | 44,89  | B123            | 132MA            | 6    | 30000            | 11725        |
| 21,0        | 1637       | 1,0 | 68,58  | B103            | 112M/112MA       | 4    | 22000            | 8479         |
| 21,0        | 1577       | 2,4 | 136,44 | B143            | 100LB/112M/112MA | 2    | 40000            | 40000        |
| 20,7        | 1658       | 2,0 | 69,43  | B123            | 112M/112MA       | 4    | 30000            | 11821        |
| 20,4        | 1682       | 3,0 | 70,43  | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 20,3        | 1710       | 1,0 | 47,28  | B103            | 132MA            | 6    | 22000            | 8529         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 4,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
| 19,9        | 1670       | 1,6 | 144,43 | B123            | 100LB/112M/112MA | 2    | 30000            | 12004        |
| 19,9        | 1749       | 3,0 | 48,35  | B143            | 132MA            | 6    | 40000            | 40000        |
| 19,8        | 1737       | 1,0 | 72,76  | B103            | 112M/112MA       | 4    | 22000            | 8591         |
| 19,4        | 1777       | 2,0 | 74,42  | B123            | 112M/112MA       | 4    | 30000            | 11989        |
| 19,3        | 1801       | 1,9 | 49,80  | B123            | 132MA            | 6    | 30000            | 11975        |
| 19,2        | 1729       | 2,2 | 149,59 | B143            | 100LB/112M/112MA | 2    | 40000            | 40000        |
| 19,1        | 1817       | 1,0 | 50,24  | B103            | 132MA            | 6    | 22000            | 8642         |
| 18,7        | 1841       | 2,7 | 77,12  | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 18,2        | 1884       | 0,9 | 78,92  | B103            | 112M/112MA       | 4    | 22000            | 8742         |
| 18,1        | 1918       | 0,9 | 53,02  | B103            | 132MA            | 6    | 22000            | 8741         |
| 18,1        | 1923       | 2,7 | 53,16  | B143            | 132MA            | 6    | 40000            | 40000        |
| 18,0        | 1911       | 1,8 | 80,04  | B123            | 112M/112MA       | 4    | 30000            | 12161        |
| 17,9        | 1852       | 1,4 | 160,23 | B123            | 100LB/112M/112MA | 2    | 30000            | 12259        |
| 17,7        | 1964       | 1,7 | 54,30  | B123            | 132MA            | 6    | 30000            | 12176        |
| 17,6        | 1976       | 2,7 | 54,63  | B143            | 132MA            | 6    | 40000            | 40000        |
| 17,2        | 1997       | 0,9 | 83,66  | B103            | 112M/112MA       | 4    | 22000            | 8849         |
| 17,2        | 1925       | 1,9 | 166,53 | B143            | 100LB/112M/112MA | 2    | 40000            | 40000        |
| 16,8        | 2042       | 2,4 | 85,54  | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 16,3        | 2135       | 2,5 | 59,02  | B143            | 132MA            | 6    | 40000            | 40000        |
| 16,2        | 2147       | 1,6 | 59,36  | B123            | 132MA            | 6    | 30000            | 12376        |
| 16,0        | 2146       | 1,6 | 89,87  | B123            | 112M/112MA       | 4    | 30000            | 12424        |
| 15,9        | 2085       | 1,3 | 180,40 | B123            | 100LB/112M/112MA | 2    | 30000            | 12539        |
| 15,8        | 2204       | 3,8 | 60,92  | B153            | 132MA            | 6    | 65000            | 65000        |
| 15,3        | 2264       | 1,5 | 62,59  | B123            | 132MA            | 6    | 30000            | 12490        |
| 15,3        | 2164       | 1,7 | 187,24 | B143            | 100LB/112M/112MA | 2    | 40000            | 40000        |
| 15,3        | 2247       | 2,2 | 94,13  | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 15,1        | 2296       | 3,7 | 63,47  | B153            | 132MA            | 6    | 65000            | 65000        |
| 14,8        | 2347       | 2,2 | 64,88  | B143            | 132MA            | 6    | 40000            | 40000        |
| 14,4        | 2380       | 1,5 | 99,70  | B123            | 112M/112MA       | 4    | 30000            | 12647        |
| 13,8        | 2511       | 1,4 | 69,43  | B123            | 132MA            | 6    | 30000            | 12704        |
| 13,6        | 2548       | 2,1 | 70,43  | B143            | 132MA            | 6    | 40000            | 40000        |
| 13,6        | 2527       | 2,0 | 105,83 | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 13,5        | 2546       | 1,4 | 106,65 | B123            | 112M/112MA       | 4    | 30000            | 12784        |
| 13,5        | 2573       | 3,3 | 71,15  | B153            | 132MA            | 6    | 65000            | 65000        |
| 12,9        | 2692       | 1,4 | 74,42  | B123            | 132MA            | 6    | 30000            | 12838        |
| 12,9        | 2673       | 1,9 | 111,94 | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 12,4        | 2789       | 1,9 | 77,12  | B143            | 132MA            | 6    | 40000            | 40000        |
| 12,4        | 2793       | 3,0 | 77,22  | B153            | 132MA            | 6    | 65000            | 65000        |
| 12,0        | 2855       | 1,2 | 119,60 | B123            | 112M/112MA       | 4    | 30000            | 13000        |
| 12,0        | 2895       | 1,3 | 80,04  | B123            | 132MA            | 6    | 30000            | 12969        |
| 11,6        | 2975       | 1,7 | 124,62 | B143            | 112M/112MA       | 4    | 40000            | 40000        |
| 11,4        | 3034       | 2,8 | 83,89  | B153            | 132MA            | 6    | 65000            | 65000        |



## 4,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|------------|------|---------------|-----------|
| 11,2     | 3094    | 1,7 | 85,54  | B143         | 132MA      | 6    | 40000         | 40000     |
| 11,1     | 3103    | 1,1 | 129,96 | B123         | 112M/112MA | 4    | 30000         | 13140     |
| 11,0     | 3170    | 2,6 | 87,65  | B153         | 132MA      | 6    | 65000         | 65000     |
| 10,7     | 3251    | 1,1 | 89,87  | B123         | 132MA      | 6    | 30000         | 13155     |
| 10,6     | 3257    | 1,5 | 136,44 | B143         | 112M/112MA | 4    | 40000         | 40000     |
| 10,3     | 3366    | 2,5 | 93,05  | B153         | 132MA      | 6    | 65000         | 65000     |
| 10,2     | 3405    | 1,5 | 94,13  | B143         | 132MA      | 6    | 40000         | 40000     |
| 10,0     | 3448    | 1,0 | 144,43 | B123         | 112M/112MA | 4    | 30000         | 13297     |
| 9,6      | 3606    | 1,0 | 99,70  | B123         | 132MA      | 6    | 30000         | 13296     |
| 9,6      | 3571    | 1,4 | 149,59 | B143         | 112M/112MA | 4    | 40000         | 40000     |
| 9,3      | 3730    | 2,3 | 103,12 | B153         | 132MA      | 6    | 65000         | 65000     |
| 9,1      | 3828    | 1,4 | 105,83 | B143         | 132MA      | 6    | 40000         | 40000     |
| 9,0      | 3858    | 1,0 | 106,65 | B123         | 132MA      | 6    | 30000         | 13371     |
| 9,0      | 3825    | 0,9 | 160,23 | B123         | 112M/112MA | 4    | 30000         | 13423     |
| 8,6      | 4049    | 1,3 | 111,94 | B143         | 132MA      | 6    | 40000         | 40000     |
| 8,6      | 3976    | 1,3 | 166,53 | B143         | 112M/112MA | 4    | 40000         | 40000     |
| 7,7      | 4507    | 1,2 | 124,62 | B143         | 132MA      | 6    | 40000         | 40000     |
| 7,7      | 4470    | 1,1 | 187,24 | B143         | 112M/112MA | 4    | 40000         | 40000     |
| 7,7      | 4481    | 1,9 | 123,88 | B153         | 132MA      | 6    | 65000         | 65000     |
| 7,2      | 4856    | 1,7 | 134,27 | B153         | 132MA      | 6    | 65000         | 65000     |
| 7,0      | 4935    | 1,1 | 136,44 | B143         | 132MA      | 6    | 40000         | 40000     |
| 6,4      | 5411    | 1,0 | 149,59 | B143         | 132MA      | 6    | 40000         | 40000     |
| 6,4      | 5399    | 1,6 | 149,26 | B153         | 132MA      | 6    | 65000         | 65000     |
| 5,8      | 5983    | 1,4 | 165,42 | B153         | 132MA      | 6    | 65000         | 65000     |

## 4,80 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size           | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|----------------------|------|---------------|-----------|
| 250,2    | 165     | 1,8 | 5,71  | B063         | 112MB <sup>(1)</sup> | 4    | 7541          | 2155      |
| 207,9    | 198     | 1,7 | 6,88  | B063         | 112MB <sup>(1)</sup> | 4    | 7912          | 2261      |
| 195,3    | 211     | 1,7 | 7,32  | B063         | 112MB <sup>(1)</sup> | 4    | 8038          | 2297      |
| 183,1    | 225     | 2,2 | 7,81  | B083         | 112MB <sup>(1)</sup> | 4    | 12993         | 3712      |
| 176,0    | 234     | 3,4 | 8,13  | B103         | 112MB <sup>(1)</sup> | 4    | 16375         | 4678      |
| 171,1    | 255     | 1,4 | 8,36  | BA72         | 112MB <sup>(1)</sup> | 4    | 5043          | 2522      |
| 165,8    | 249     | 2,4 | 8,62  | B083         | 112MB <sup>(1)</sup> | 4    | 13361         | 3817      |
| 159,5    | 259     | 3,5 | 8,97  | B103         | 112MB <sup>(1)</sup> | 4    | 16868         | 4819      |
| 156,1    | 264     | 1,7 | 9,16  | B063         | 112MB <sup>(1)</sup> | 4    | 8488          | 2425      |
| 142,2    | 306     | 1,1 | 10,06 | BA72         | 112MB <sup>(1)</sup> | 4    | 5365          | 2682      |
| 139,3    | 296     | 1,8 | 10,26 | B063         | 112MB <sup>(1)</sup> | 4    | 8714          | 2490      |
| 136,3    | 303     | 2,1 | 10,49 | B083         | 112MB <sup>(1)</sup> | 4    | 14104         | 4030      |
| 130,9    | 315     | 3,2 | 10,92 | B103         | 112MB <sup>(1)</sup> | 4    | 17889         | 5111      |
| 129,7    | 318     | 1,7 | 11,03 | B063         | 112MB <sup>(1)</sup> | 4    | 8856          | 2530      |

<sup>(1)</sup> Available only with brake motor (TBS)

## 4,80 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 123,4       | 334        | 2,2 | 11,59 | B083            | 112MB <sup>(1)</sup> | 4    | 14486            | 4139         |
| 118,7       | 348        | 2,9 | 12,05 | B103            | 112MB <sup>(1)</sup> | 4    | 18416            | 5262         |
| 115,7       | 356        | 1,6 | 12,35 | B063            | 112MB <sup>(1)</sup> | 4    | 9076             | 2593         |
| 114,9       | 379        | 0,9 | 12,44 | BA72            | 112MB <sup>(1)</sup> | 4    | 5759             | 2879         |
| 108,7       | 379        | 1,6 | 13,15 | B063            | 112MB <sup>(1)</sup> | 4    | 9195             | 2627         |
| 99,1        | 416        | 1,9 | 14,43 | B083            | 112MB <sup>(1)</sup> | 4    | 15343            | 4384         |
| 95,9        | 454        | 0,9 | 14,91 | BA72            | 112MB <sup>(1)</sup> | 4    | 6116             | 3058         |
| 95,4        | 432        | 2,8 | 14,99 | B103            | 112MB <sup>(1)</sup> | 4    | 19621            | 5606         |
| 94,2        | 438        | 1,3 | 15,18 | B063            | 112MB <sup>(1)</sup> | 4    | 9459             | 2703         |
| 86,2        | 479        | 1,8 | 16,60 | B083            | 112MB <sup>(1)</sup> | 4    | 15895            | 4541         |
| 84,1        | 491        | 1,2 | 17,00 | B063            | 112MB <sup>(1)</sup> | 4    | 9659             | 2760         |
| 82,8        | 498        | 2,8 | 17,27 | B103            | 112MB <sup>(1)</sup> | 4    | 20431            | 5837         |
| 78,0        | 529        | 1,6 | 18,32 | B083            | 112MB <sup>(1)</sup> | 4    | 16286            | 4653         |
| 75,0        | 550        | 2,5 | 19,06 | B103            | 112MB <sup>(1)</sup> | 4    | 21005            | 6001         |
| 63,9        | 646        | 0,9 | 22,39 | B063            | 112MB <sup>(1)</sup> | 4    | 10086            | 2882         |
| 62,7        | 658        | 1,3 | 22,82 | B083            | 112MB <sup>(1)</sup> | 4    | 17144            | 4898         |
| 60,3        | 684        | 2,0 | 23,70 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 6373         |
| 55,2        | 747        | 3,7 | 25,89 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 9151         |
| 53,9        | 765        | 2,0 | 26,51 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 6568         |
| 53,5        | 771        | 1,1 | 26,71 | B083            | 112MB <sup>(1)</sup> | 4    | 17747            | 5071         |
| 48,5        | 851        | 1,0 | 29,50 | B083            | 112MB <sup>(1)</sup> | 4    | 18000            | 5176         |
| 46,8        | 882        | 1,8 | 30,55 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 6817         |
| 45,7        | 902        | 3,1 | 31,26 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 9598         |
| 45,0        | 917        | 0,9 | 31,80 | B083            | 112MB <sup>(1)</sup> | 4    | 18000            | 5254         |
| 43,2        | 954        | 1,8 | 33,07 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 6956         |
| 41,2        | 1001       | 2,8 | 34,68 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 9844         |
| 39,9        | 1035       | 1,6 | 35,87 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7101         |
| 35,3        | 1169       | 2,4 | 40,53 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 10211        |
| 34,8        | 1186       | 1,4 | 41,12 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7343         |
| 32,4        | 1274       | 3,8 | 44,16 | B143            | 112MB <sup>(1)</sup> | 4    | 35559            | 35559        |
| 32,1        | 1287       | 1,3 | 44,61 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7487         |
| 31,9        | 1295       | 2,3 | 44,89 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 10449        |
| 30,2        | 1364       | 1,2 | 47,28 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7589         |
| 29,6        | 1395       | 3,6 | 48,35 | B143            | 112MB <sup>(1)</sup> | 4    | 36376            | 36376        |
| 28,7        | 1437       | 2,2 | 49,80 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 10686        |
| 28,5        | 1449       | 1,2 | 50,24 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7695         |
| 27,0        | 1530       | 1,1 | 53,02 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7789         |
| 26,9        | 1534       | 3,3 | 53,16 | B143            | 112MB <sup>(1)</sup> | 4    | 37231            | 37231        |
| 26,3        | 1567       | 2,0 | 54,30 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 10880        |
| 26,2        | 1576       | 3,2 | 54,63 | B143            | 112MB <sup>(1)</sup> | 4    | 37477            | 37477        |
| 24,4        | 1688       | 1,0 | 58,50 | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 7957         |
| 24,2        | 1703       | 2,9 | 59,02 | B143            | 112MB <sup>(1)</sup> | 4    | 38170            | 38170        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 4,80 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|----------------------|------|------------------|--------------|
| 24,1        | 1712       | 1,9 | 59,36  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 11074        |
| 22,8        | 1806       | 1,8 | 62,59  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 11186        |
| 22,0        | 1872       | 0,9 | 64,89  | B103            | 112MB <sup>(1)</sup> | 4    | 22000            | 8131         |
| 22,0        | 1872       | 2,7 | 64,88  | B143            | 112MB <sup>(1)</sup> | 4    | 39016            | 39016        |
| 20,6        | 2003       | 1,6 | 69,43  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 11400        |
| 20,3        | 2032       | 2,5 | 70,43  | B143            | 112MB <sup>(1)</sup> | 4    | 39740            | 39740        |
| 19,2        | 2147       | 1,6 | 74,42  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 11535        |
| 18,5        | 2225       | 2,2 | 77,12  | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 17,9        | 2309       | 1,5 | 80,04  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 11672        |
| 16,7        | 2468       | 2,0 | 85,54  | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 15,9        | 2593       | 1,3 | 89,87  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 11872        |
| 15,2        | 2716       | 1,8 | 94,13  | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 14,3        | 2876       | 1,2 | 99,70  | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 12032        |
| 13,5        | 3053       | 1,6 | 105,83 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 13,4        | 3077       | 1,1 | 106,65 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 12124        |
| 12,8        | 3229       | 1,5 | 111,94 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 12,0        | 3450       | 1,0 | 119,60 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 12257        |
| 11,5        | 3595       | 1,4 | 124,62 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 11,0        | 3749       | 0,9 | 129,96 | B123            | 112MB <sup>(1)</sup> | 4    | 30000            | 12331        |
| 10,5        | 3936       | 1,3 | 136,44 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 9,6         | 4316       | 1,2 | 149,59 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 8,6         | 4804       | 1,0 | 166,53 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |
| 7,6         | 5402       | 0,9 | 187,24 | B143            | 112MB <sup>(1)</sup> | 4    | 40000            | 40000        |

## 5,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 423,0       | 108        | 2,4 | 6,88  | B063            | 112MB <sup>(1)</sup> | 2    | 6480             | 1851         |
| 397,4       | 115        | 2,3 | 7,32  | B063            | 112MB <sup>(1)</sup> | 2    | 6594             | 1884         |
| 372,6       | 122        | 3,1 | 7,81  | B083            | 112MB/132SA/132S     | 2    | 10503            | 3001         |
| 348,2       | 138        | 1,9 | 8,36  | BA72            | 112MB <sup>(1)</sup> | 2    | 3980             | 1990         |
| 337,5       | 135        | 3,3 | 8,62  | B083            | 112MB/132SA/132S     | 2    | 10817            | 3091         |
| 289,3       | 166        | 1,6 | 10,06 | BA72            | 112MB <sup>(1)</sup> | 2    | 4233             | 2117         |
| 277,3       | 165        | 3,0 | 10,49 | B083            | 112MB/132SA/132S     | 2    | 11460            | 3274         |
| 263,9       | 173        | 2,3 | 11,03 | B063            | 112MB <sup>(1)</sup> | 2    | 7361             | 2103         |
| 251,1       | 182        | 3,1 | 11,59 | B083            | 112MB/132SA/132S     | 2    | 11793            | 3370         |
| 241,5       | 189        | 4,0 | 12,05 | B103            | 112MB/132SA          | 2    | 14814            | 4233         |
| 233,9       | 206        | 1,3 | 12,44 | BA72            | 112MB <sup>(1)</sup> | 2    | 4544             | 2272         |
| 221,3       | 206        | 2,1 | 13,15 | B063            | 112MB <sup>(1)</sup> | 2    | 7698             | 2199         |
| 201,7       | 226        | 2,7 | 14,43 | B083            | 112MB/132SA/132S     | 2    | 12554            | 3587         |
| 195,2       | 247        | 1,3 | 14,91 | BA72            | 112MB <sup>(1)</sup> | 2    | 4826             | 2413         |
| 194,2       | 235        | 3,8 | 14,99 | B103            | 112MB/132SA/132S     | 2    | 15828            | 4522         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 191,8       | 238        | 1,9 | 15,18 | B063            | 112MB <sup>(1)</sup> | 2    | 7972             | 2278         |
| 185,7       | 255        | 2,0 | 7,81  | B083            | 132MS/132S           | 4    | 12811            | 3660         |
| 178,4       | 265        | 3,0 | 8,13  | B103            | 132MS/132S           | 4    | 16209            | 4631         |
| 175,4       | 260        | 2,5 | 16,60 | B083            | 112MB/132SA/132S     | 2    | 13052            | 3729         |
| 171,2       | 267        | 1,7 | 17,00 | B063            | 112MB <sup>(1)</sup> | 2    | 8188             | 2339         |
| 168,5       | 271        | 3,9 | 17,27 | B103            | 112MB/132SA/132S     | 2    | 16516            | 4719         |
| 168,2       | 281        | 2,1 | 8,62  | B083            | 132MS/132S           | 4    | 13164            | 3761         |
| 162,2       | 297        | 1,1 | 17,94 | BA72            | 112MB <sup>(1)</sup> | 2    | 5134             | 2567         |
| 161,7       | 292        | 3,1 | 8,97  | B103            | 132MS/132S           | 4    | 16690            | 4769         |
| 158,8       | 287        | 2,2 | 18,32 | B083            | 112MB/132SA/132S     | 2    | 13412            | 3832         |
| 152,7       | 299        | 3,5 | 19,06 | B103            | 112MB/132SA/132S     | 2    | 17006            | 4859         |
| 138,2       | 342        | 1,9 | 10,49 | B083            | 132MS/132S           | 4    | 13875            | 3964         |
| 132,8       | 356        | 2,8 | 10,92 | B103            | 132MS/132S           | 4    | 17685            | 5053         |
| 130,0       | 351        | 1,3 | 22,39 | B063            | 112MB <sup>(1)</sup> | 2    | 8700             | 2486         |
| 127,5       | 358        | 1,8 | 22,82 | B083            | 112MB/132SA/132S     | 2    | 14221            | 4063         |
| 125,1       | 378        | 2,0 | 11,59 | B083            | 132MS/132S           | 4    | 14238            | 4068         |
| 122,9       | 388        | 1,4 | 7,81  | B083            | 132MB                | 6    | 14288            | 4082         |
| 122,8       | 372        | 2,8 | 23,70 | B103            | 112MB/132SA/132S     | 2    | 18130            | 5180         |
| 120,5       | 396        | 4,0 | 7,97  | B123            | 132MB                | 6    | 25591            | 7312         |
| 120,3       | 393        | 2,5 | 12,05 | B103            | 132MS/132S           | 4    | 18197            | 5199         |
| 118,1       | 404        | 2,1 | 8,13  | B103            | 132MB                | 6    | 18283            | 5224         |
| 111,5       | 409        | 1,1 | 26,09 | B063            | 112MB <sup>(1)</sup> | 2    | 8971             | 2563         |
| 111,3       | 429        | 1,5 | 8,62  | B083            | 132MB                | 6    | 14651            | 4186         |
| 109,8       | 416        | 2,7 | 26,51 | B103            | 112MB/132SA/132S     | 2    | 18727            | 5351         |
| 108,9       | 419        | 1,5 | 26,71 | B083            | 112MB/132SA/132S     | 2    | 14810            | 4231         |
| 107,1       | 446        | 2,1 | 8,97  | B103            | 132MB                | 6    | 18804            | 5373         |
| 103,8       | 439        | 1,0 | 28,03 | B063            | 112MB <sup>(1)</sup> | 2    | 9093             | 2598         |
| 100,5       | 470        | 1,7 | 14,43 | B083            | 132MS/132S           | 4    | 15046            | 4299         |
| 99,8        | 478        | 4,0 | 9,62  | B123            | 132MB                | 6    | 26973            | 7707         |
| 98,7        | 462        | 1,4 | 29,50 | B083            | 112MB/132SA/132S     | 2    | 15182            | 4338         |
| 96,8        | 489        | 2,5 | 14,99 | B103            | 132MS/132S           | 4    | 19364            | 5532         |
| 95,2        | 479        | 2,5 | 30,55 | B103            | 112MB/132SA/132S     | 2    | 19500            | 5571         |
| 91,5        | 522        | 1,3 | 10,49 | B083            | 132MB                | 6    | 15372            | 4392         |
| 91,5        | 498        | 1,3 | 31,80 | B083            | 112MB/132SA/132S     | 2    | 15464            | 4418         |
| 88,0        | 518        | 2,5 | 33,07 | B103            | 112MB/132SA/132S     | 2    | 19938            | 5697         |
| 87,9        | 543        | 1,9 | 10,92 | B103            | 132MB                | 6    | 19875            | 5678         |
| 87,4        | 541        | 1,6 | 16,60 | B083            | 132MS/132S           | 4    | 15561            | 4446         |
| 84,4        | 541        | 1,2 | 34,49 | B083            | 112MB/132SA/132S     | 2    | 15769            | 4505         |
| 84,0        | 563        | 2,5 | 17,27 | B103            | 132MS/132S           | 4    | 20145            | 5756         |
| 83,9        | 544        | 3,9 | 34,68 | B123            | 112MB/132SA/132S     | 2    | 28392            | 8112         |
| 82,9        | 576        | 1,4 | 11,59 | B083            | 132MB                | 6    | 15733            | 4495         |
| 81,1        | 562        | 2,3 | 35,87 | B103            | 112MB/132SA/132S     | 2    | 20395            | 5827         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5.1 B/BA GEARED MOTORS (50Hz)

## 5,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|------------------|------|------------------|--------------|
| 79,7        | 599        | 1,8 | 12,05 | B103            | 132MB            | 6    | 20421            | 5834         |
| 79,1        | 597        | 1,4 | 18,32 | B083            | 132MS/132S       | 4    | 15923            | 4550         |
| 78,1        | 606        | 3,6 | 18,58 | B123            | 132MS/132S       | 4    | 28852            | 8244         |
| 76,9        | 621        | 3,4 | 12,48 | B123            | 132MB            | 6    | 28936            | 8267         |
| 76,1        | 621        | 2,3 | 19,06 | B103            | 132MS/132S       | 4    | 20696            | 5913         |
| 73,5        | 621        | 1,0 | 39,60 | B083            | 112MB/132SA/132S | 2    | 16282            | 4652         |
| 71,8        | 635        | 3,3 | 40,53 | B123            | 112MB/132SA/132S | 2    | 29601            | 8457         |
| 70,8        | 645        | 2,0 | 41,12 | B103            | 112MB/132SA/132S | 2    | 21174            | 6050         |
| 70,4        | 672        | 3,7 | 20,61 | B123            | 132MS/132S       | 4    | 29651            | 8472         |
| 69,3        | 689        | 3,2 | 13,84 | B123            | 132MB            | 6    | 29732            | 8495         |
| 66,5        | 718        | 1,2 | 14,43 | B083            | 132MB            | 6    | 16517            | 4719         |
| 65,2        | 699        | 1,8 | 44,61 | B103            | 112MB/132SA/132S | 2    | 21643            | 6184         |
| 64,8        | 704        | 3,2 | 44,89 | B123            | 112MB/132SA/132S | 2    | 30000            | 8686         |
| 64,1        | 745        | 1,7 | 14,99 | B103            | 132MB            | 6    | 21653            | 6187         |
| 63,7        | 743        | 3,8 | 22,78 | B123            | 132MS/132S       | 4    | 30000            | 8693         |
| 63,5        | 744        | 1,1 | 22,82 | B083            | 132MS/132S       | 4    | 16707            | 4774         |
| 62,4        | 765        | 2,9 | 15,38 | B123            | 132MB            | 6    | 30000            | 8727         |
| 61,5        | 741        | 1,7 | 47,28 | B103            | 112MB/132SA/132S | 2    | 21982            | 6280         |
| 61,2        | 773        | 1,8 | 23,70 | B103            | 132MS/132S       | 4    | 21938            | 6268         |
| 58,4        | 781        | 3,1 | 49,80 | B123            | 112MB/132SA/132S | 2    | 30000            | 8920         |
| 57,9        | 788        | 1,6 | 50,24 | B103            | 112MB/132SA/132S | 2    | 22000            | 6382         |
| 57,8        | 825        | 1,1 | 16,60 | B083            | 132MB            | 6    | 16999            | 4857         |
| 56,3        | 848        | 4,0 | 17,04 | B143            | 132MB            | 6    | 30302            | 30302        |
| 56,0        | 844        | 3,3 | 25,89 | B123            | 132MS/132S       | 4    | 30000            | 8977         |
| 55,6        | 859        | 1,7 | 17,27 | B103            | 132MB            | 6    | 22000            | 6419         |
| 54,9        | 831        | 1,5 | 53,02 | B103            | 112MB/132SA/132S | 2    | 22000            | 6472         |
| 54,7        | 864        | 1,7 | 26,51 | B103            | 132MS/132S       | 4    | 22000            | 6453         |
| 54,3        | 871        | 1,0 | 26,71 | B083            | 132MS/132S       | 4    | 17246            | 4928         |
| 53,6        | 851        | 2,8 | 54,30 | B123            | 112MB/132SA/132S | 2    | 30000            | 9115         |
| 52,7        | 897        | 3,1 | 27,51 | B123            | 132MS/132S       | 4    | 30000            | 9112         |
| 52,4        | 911        | 1,0 | 18,32 | B083            | 132MB            | 6    | 17327            | 4951         |
| 51,7        | 924        | 2,5 | 18,58 | B123            | 132MB            | 6    | 30000            | 9143         |
| 50,4        | 948        | 1,6 | 19,06 | B103            | 132MB            | 6    | 22000            | 6581         |
| 49,7        | 917        | 1,4 | 58,50 | B103            | 112MB/132SA/132S | 2    | 22000            | 6637         |
| 49,0        | 930        | 2,6 | 59,36 | B123            | 112MB/132SA/132S | 2    | 30000            | 9316         |
| 47,5        | 996        | 1,6 | 30,55 | B103            | 132MS/132S       | 4    | 22000            | 6688         |
| 47,1        | 1004       | 2,8 | 30,79 | B123            | 132MS/132S       | 4    | 30000            | 9361         |
| 46,6        | 1025       | 2,6 | 20,61 | B123            | 132MB            | 6    | 30000            | 9372         |
| 46,5        | 981        | 2,5 | 62,59 | B123            | 112MB/132SA/132S | 2    | 30000            | 9436         |
| 46,4        | 1019       | 2,7 | 31,26 | B123            | 132MS/132S       | 4    | 30000            | 9395         |
| 44,9        | 1017       | 3,7 | 64,88 | B143            | 112MB/132SA/132S | 2    | 32340            | 32340        |
| 44,8        | 1017       | 1,3 | 64,89 | B103            | 112MB/132SA/132S | 2    | 22000            | 6812         |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 5,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor            |      | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
|             |            |     |        |                 | Size             | Pole |                  |              |
| 43,9        | 1078       | 1,6 | 33,07  | B103            | 132MS/132S       | 4    | 22000            | 6819         |
| 42,4        | 1075       | 1,2 | 68,58  | B103            | 112MB/132SA/132S | 2    | 22000            | 6905         |
| 42,1        | 1133       | 2,6 | 22,78  | B123            | 132MB            | 6    | 30000            | 9590         |
| 41,9        | 1088       | 2,3 | 69,43  | B123            | 112MB/132SA/132S | 2    | 30000            | 9669         |
| 41,8        | 1131       | 2,5 | 34,68  | B123            | 132MS/132S       | 4    | 30000            | 9622         |
| 41,3        | 1104       | 3,4 | 70,43  | B143            | 112MB/132SA/132S | 2    | 33040            | 33040        |
| 40,5        | 1179       | 1,2 | 23,70  | B103            | 132MB            | 6    | 22000            | 6941         |
| 40,4        | 1169       | 1,5 | 35,87  | B103            | 132MS/132S       | 4    | 22000            | 6954         |
| 40,0        | 1141       | 1,1 | 72,76  | B103            | 112MB/132SA/132S | 2    | 22000            | 7005         |
| 39,1        | 1167       | 2,3 | 74,42  | B123            | 112MB/132SA/132S | 2    | 30000            | 9823         |
| 37,7        | 1209       | 3,1 | 77,12  | B143            | 112MB/132SA/132S | 2    | 33816            | 33816        |
| 37,5        | 1275       | 3,8 | 25,63  | B143            | 132MB            | 6    | 33697            | 33697        |
| 37,1        | 1288       | 2,3 | 25,89  | B123            | 132MB            | 6    | 30000            | 9865         |
| 36,9        | 1237       | 1,0 | 78,92  | B103            | 112MB/132SA/132S | 2    | 22000            | 7142         |
| 36,4        | 1255       | 2,1 | 80,04  | B123            | 112MB/132SA/132S | 2    | 30000            | 9983         |
| 36,2        | 1319       | 1,2 | 26,51  | B103            | 132MB            | 6    | 22000            | 7124         |
| 36,0        | 1314       | 3,7 | 40,29  | B143            | 132MS/132S       | 4    | 34076            | 34076        |
| 35,8        | 1321       | 2,1 | 40,53  | B123            | 132MS/132S       | 4    | 30000            | 9958         |
| 35,3        | 1341       | 1,3 | 41,12  | B103            | 132MS/132S       | 4    | 22000            | 7178         |
| 35,0        | 1365       | 3,5 | 27,44  | B143            | 132MB            | 6    | 34272            | 34272        |
| 34,9        | 1368       | 2,1 | 27,51  | B123            | 132MB            | 6    | 30000            | 9993         |
| 34,8        | 1311       | 1,0 | 83,66  | B103            | 112MB/132SA/132S | 2    | 22000            | 7239         |
| 34,0        | 1341       | 2,8 | 85,54  | B143            | 112MB/132SA/132S | 2    | 34706            | 34706        |
| 32,8        | 1440       | 3,3 | 44,16  | B143            | 132MS/132S       | 4    | 34849            | 34849        |
| 32,5        | 1454       | 1,2 | 44,61  | B103            | 132MS/132S       | 4    | 22000            | 7310         |
| 32,4        | 1409       | 1,9 | 89,87  | B123            | 112MB/132SA/132S | 2    | 30000            | 10234        |
| 32,3        | 1464       | 2,0 | 44,89  | B123            | 132MS/132S       | 4    | 30000            | 10172        |
| 32,0        | 1494       | 3,3 | 30,05  | B143            | 132MB            | 6    | 35031            | 35031        |
| 31,4        | 1520       | 1,1 | 30,55  | B103            | 132MB            | 6    | 22000            | 7352         |
| 31,2        | 1531       | 1,9 | 30,79  | B123            | 132MB            | 6    | 30000            | 10225        |
| 30,9        | 1476       | 2,5 | 94,13  | B143            | 112MB/132SA/132S | 2    | 35526            | 35526        |
| 30,7        | 1542       | 1,1 | 47,28  | B103            | 132MS/132S       | 4    | 22000            | 7404         |
| 30,7        | 1555       | 1,9 | 31,26  | B123            | 132MB            | 6    | 30000            | 10256        |
| 30,0        | 1576       | 3,2 | 48,35  | B143            | 132MS/132S       | 4    | 35611            | 35611        |
| 29,2        | 1563       | 1,7 | 99,70  | B123            | 112MB/132SA/132S | 2    | 30000            | 10453        |
| 29,1        | 1624       | 2,0 | 49,80  | B123            | 132MS/132S       | 4    | 30000            | 10383        |
| 29,1        | 1642       | 3,0 | 33,01  | B143            | 132MB            | 6    | 35816            | 35816        |
| 29,0        | 1645       | 1,1 | 33,07  | B103            | 132MB            | 6    | 22000            | 7477         |
| 28,9        | 1638       | 1,0 | 50,24  | B103            | 132MS/132S       | 4    | 22000            | 7500         |
| 28,2        | 1616       | 3,7 | 103,12 | B153            | 132SA/132S       | 2    | 63179            | 63179        |
| 27,7        | 1725       | 1,7 | 34,68  | B123            | 132MB            | 6    | 30000            | 10461        |
| 27,5        | 1659       | 2,3 | 105,83 | B143            | 112MB/132SA/132S | 2    | 36528            | 36528        |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 5,50 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor            |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|------------------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size             | Pole |                              |                          |
| 27,3                    | 1729                   | 1,0            | 53,02  | B103            | 132MS/132S       | 4    | 22000                        | 7584                     |
| 27,3                    | 1672                   | 1,6            | 106,65 | B123            | 112MB/132SA/132S | 2    | 30000                        | 10591                    |
| 27,3                    | 1733                   | 2,9            | 53,16  | B143            | 132MS/132S       | 4    | 36402                        | 36402                    |
| 26,8                    | 1784                   | 1,0            | 35,87  | B103            | 132MB            | 6    | 22000                        | 7603                     |
| 26,7                    | 1770                   | 1,8            | 54,30  | B123            | 132MS/132S       | 4    | 30000                        | 10553                    |
| 26,5                    | 1781                   | 2,8            | 54,63  | B143            | 132MS/132S       | 4    | 36628                        | 36628                    |
| 26,2                    | 1824                   | 2,8            | 36,67  | B143            | 132MB            | 6    | 36686                        | 36686                    |
| 26,0                    | 1755                   | 2,1            | 111,94 | B143            | 112MB/132SA/132S | 2    | 37004                        | 37004                    |
| 25,1                    | 1881                   | 0,9            | 58,50  | B103            | 132MS            | 4    | 22000                        | 7713                     |
| 24,6                    | 1924                   | 2,6            | 59,02  | B143            | 132MS/132S       | 4    | 37265                        | 37265                    |
| 24,4                    | 1935                   | 1,7            | 59,36  | B123            | 132MS/132S       | 4    | 30000                        | 10721                    |
| 24,3                    | 1875                   | 1,4            | 119,60 | B123            | 112MB/132SA/132S | 2    | 30000                        | 10817                    |
| 23,8                    | 2004                   | 2,5            | 40,29  | B143            | 132MB            | 6    | 37452                        | 37452                    |
| 23,7                    | 2016                   | 1,5            | 40,53  | B123            | 132MB            | 6    | 30000                        | 10750                    |
| 23,5                    | 1942                   | 3,1            | 123,88 | B153            | 132SA/132S       | 2    | 65000                        | 65000                    |
| 23,4                    | 1954                   | 1,9            | 124,62 | B143            | 112MB/132SA/132S | 2    | 37905                        | 37905                    |
| 23,2                    | 2040                   | 1,6            | 62,59  | B123            | 132MS/132S       | 4    | 30000                        | 10816                    |
| 22,8                    | 2069                   | 3,9            | 63,47  | B153            | 132MS/132S       | 4    | 65000                        | 65000                    |
| 22,7                    | 2104                   | 4,0            | 42,30  | B153            | 132MB            | 6    | 65000                        | 65000                    |
| 22,4                    | 2037                   | 1,3            | 129,96 | B123            | 112MB/132SA/132S | 2    | 30000                        | 10973                    |
| 22,3                    | 2115                   | 2,4            | 64,88  | B143            | 132MS/132S       | 4    | 38034                        | 38034                    |
| 21,7                    | 2196                   | 2,3            | 44,16  | B143            | 132MB            | 6    | 38186                        | 38186                    |
| 21,7                    | 2105                   | 2,9            | 134,27 | B153            | 132SA/132S       | 2    | 65000                        | 65000                    |
| 21,4                    | 2233                   | 1,4            | 44,89  | B123            | 132MB            | 6    | 30000                        | 10925                    |
| 21,3                    | 2139                   | 1,8            | 136,44 | B143            | 112MB/132SA/132S | 2    | 38654                        | 38654                    |
| 20,9                    | 2264                   | 1,5            | 69,43  | B123            | 132MS/132S       | 4    | 30000                        | 10993                    |
| 20,6                    | 2296                   | 2,2            | 70,43  | B143            | 132MS/132S       | 4    | 38686                        | 38686                    |
| 20,4                    | 2319                   | 3,4            | 71,15  | B153            | 132MS/132S       | 4    | 65000                        | 65000                    |
| 20,2                    | 2364                   | 3,6            | 47,53  | B153            | 132MB            | 6    | 65000                        | 65000                    |
| 20,1                    | 2264                   | 1,2            | 144,43 | B123            | 112MB/132SA/132S | 2    | 30000                        | 11159                    |
| 19,9                    | 2405                   | 2,2            | 48,35  | B143            | 132MB            | 6    | 38893                        | 38893                    |
| 19,5                    | 2426                   | 1,4            | 74,42  | B123            | 132MS/132S       | 4    | 30000                        | 11103                    |
| 19,5                    | 2345                   | 1,6            | 149,59 | B143            | 112MB/132SA/132S | 2    | 39398                        | 39398                    |
| 19,5                    | 2340                   | 2,6            | 149,26 | B153            | 132SA/132S       | 2    | 65000                        | 65000                    |
| 19,3                    | 2477                   | 1,4            | 49,80  | B123            | 132MB            | 6    | 30000                        | 11087                    |
| 19,0                    | 2515                   | 3,3            | 50,56  | B153            | 132MB            | 6    | 65000                        | 65000                    |
| 18,8                    | 2514                   | 2,0            | 77,12  | B143            | 132MS/132S       | 4    | 39388                        | 39388                    |
| 18,8                    | 2518                   | 3,2            | 77,22  | B153            | 132MS/132S       | 4    | 65000                        | 65000                    |
| 18,2                    | 2512                   | 1,0            | 160,23 | B123            | 112MB/132SA/132S | 2    | 30000                        | 11326                    |
| 18,1                    | 2609                   | 1,3            | 80,04  | B123            | 132MS/132S       | 4    | 30000                        | 11210                    |
| 18,1                    | 2644                   | 2,0            | 53,16  | B143            | 132MB            | 6    | 39610                        | 39610                    |
| 17,7                    | 2701                   | 1,2            | 54,30  | B123            | 132MB            | 6    | 30000                        | 11209                    |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 5,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
| 17,6        | 2717       | 1,9 | 54,63  | B143            | 132MB            | 6    | 39811            | 39811        |
| 17,6        | 2718       | 3,1 | 54,64  | B153            | 132MB            | 6    | 65000            | 65000        |
| 17,6        | 2593       | 2,3 | 165,42 | B153            | 132SA/132S       | 2    | 65000            | 65000        |
| 17,5        | 2611       | 1,4 | 166,53 | B143            | 112MB/132SA/132S | 2    | 40000            | 40000        |
| 17,3        | 2735       | 2,9 | 83,89  | B153            | 132MS/132S       | 4    | 65000            | 65000        |
| 17,0        | 2789       | 1,8 | 85,54  | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 16,8        | 2848       | 2,9 | 57,27  | B153            | 132MB            | 6    | 65000            | 65000        |
| 16,5        | 2858       | 2,8 | 87,65  | B153            | 132MS/132S       | 4    | 65000            | 65000        |
| 16,3        | 2935       | 1,8 | 59,02  | B143            | 132MB            | 6    | 40000            | 40000        |
| 16,2        | 2952       | 1,1 | 59,36  | B123            | 132MB            | 6    | 30000            | 11318        |
| 16,1        | 2930       | 1,2 | 89,87  | B123            | 132MS/132S       | 4    | 30000            | 11360        |
| 15,8        | 3030       | 2,8 | 60,92  | B153            | 132MB            | 6    | 65000            | 65000        |
| 15,6        | 3033       | 2,6 | 93,05  | B153            | 132MS/132S       | 4    | 65000            | 65000        |
| 15,5        | 2935       | 1,3 | 187,24 | B143            | 112MB/132SA/132S | 2    | 40000            | 40000        |
| 15,4        | 3069       | 1,6 | 94,13  | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 15,3        | 3113       | 1,1 | 62,59  | B123            | 132MB            | 6    | 30000            | 11375        |
| 15,1        | 3157       | 2,7 | 63,47  | B153            | 132MB            | 6    | 65000            | 65000        |
| 14,8        | 3227       | 1,6 | 64,88  | B143            | 132MB            | 6    | 40000            | 40000        |
| 14,5        | 3250       | 1,1 | 99,70  | B123            | 132MS/132S       | 4    | 30000            | 11469        |
| 14,1        | 3362       | 2,4 | 103,12 | B153            | 132MS/132S       | 4    | 65000            | 65000        |
| 13,8        | 3453       | 1,0 | 69,43  | B123            | 132MB            | 6    | 30000            | 11467        |
| 13,7        | 3450       | 1,4 | 105,83 | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 13,6        | 3477       | 1,0 | 106,65 | B123            | 132MS/132S       | 4    | 30000            | 11525        |
| 13,6        | 3503       | 1,5 | 70,43  | B143            | 132MB            | 6    | 40000            | 40000        |
| 13,5        | 3538       | 2,4 | 71,15  | B153            | 132MB            | 6    | 65000            | 65000        |
| 13,0        | 3649       | 1,4 | 111,94 | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 12,9        | 3701       | 1,0 | 74,42  | B123            | 132MB            | 6    | 30000            | 11512        |
| 12,4        | 3835       | 1,4 | 77,12  | B143            | 132MB            | 6    | 40000            | 40000        |
| 12,4        | 3841       | 2,2 | 77,22  | B153            | 132MB            | 6    | 65000            | 65000        |
| 12,2        | 3872       | 0,9 | 119,60 | B123            | 132MS/132S       | 4    | 30000            | 11588        |
| 12,0        | 3981       | 0,9 | 80,04  | B123            | 132MB            | 6    | 30000            | 11543        |
| 11,7        | 4039       | 2,0 | 123,88 | B153            | 132MS/132S       | 4    | 65000            | 65000        |
| 11,6        | 4063       | 1,2 | 124,62 | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 11,4        | 4172       | 2,0 | 83,89  | B153            | 132MB            | 6    | 65000            | 65000        |
| 11,2        | 4255       | 1,2 | 85,54  | B143            | 132MB            | 6    | 40000            | 40000        |
| 11,0        | 4359       | 1,9 | 87,65  | B153            | 132MB            | 6    | 65000            | 65000        |
| 10,8        | 4377       | 1,8 | 134,27 | B153            | 132MS/132S       | 4    | 65000            | 65000        |
| 10,6        | 4448       | 1,1 | 136,44 | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 10,3        | 4628       | 1,8 | 93,05  | B153            | 132MB            | 6    | 65000            | 65000        |
| 10,2        | 4681       | 1,1 | 94,13  | B143            | 132MB            | 6    | 40000            | 40000        |
| 9,7         | 4877       | 1,0 | 149,59 | B143            | 132MS/132S       | 4    | 40000            | 40000        |
| 9,7         | 4866       | 1,6 | 149,26 | B153            | 132MS/132S       | 4    | 65000            | 65000        |



## 5.1 B/BA GEARED MOTORS (50Hz)

## 5,50 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|------------|------|---------------|-----------|
| 9,3      | 5128    | 1,6 | 103,12 | B153         | 132MB      | 6    | 65000         | 65000     |
| 9,1      | 5263    | 1,0 | 105,83 | B143         | 132MB      | 6    | 40000         | 40000     |
| 8,8      | 5393    | 1,5 | 165,42 | B153         | 132MS/132S | 4    | 65000         | 65000     |
| 8,7      | 5429    | 0,9 | 166,53 | B143         | 132MS/132S | 4    | 40000         | 40000     |
| 8,6      | 5567    | 0,9 | 111,94 | B143         | 132MB      | 6    | 40000         | 40000     |
| 7,7      | 6161    | 1,4 | 123,88 | B153         | 132MB      | 6    | 65000         | 65000     |
| 7,2      | 6678    | 1,3 | 134,27 | B153         | 132MB      | 6    | 65000         | 65000     |
| 6,4      | 7423    | 1,1 | 149,26 | B153         | 132MB      | 6    | 65000         | 65000     |
| 5,8      | 8227    | 1,0 | 165,42 | B153         | 132MB      | 6    | 65000         | 65000     |

## 7,50 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|------------|------|---------------|-----------|
| 277,3    | 224     | 2,2 | 10,49 | B083         | 132M/132SB | 2    | 11218         | 3205      |
| 266,5    | 233     | 3,2 | 10,92 | B103         | 132M/132SB | 2    | 14196         | 4056      |
| 241,5    | 258     | 2,9 | 12,05 | B103         | 132M/132SB | 2    | 14617         | 4176      |
| 194,2    | 320     | 2,8 | 14,99 | B103         | 132M/132SB | 2    | 15582         | 4452      |
| 185,7    | 347     | 1,4 | 7,81  | B083         | 132MA/132M | 4    | 12437         | 3553      |
| 178,4    | 361     | 2,2 | 8,13  | B103         | 132MA/132M | 4    | 15932         | 4552      |
| 175,4    | 355     | 1,8 | 16,60 | B083         | 132M/132SB | 2    | 12670         | 3620      |
| 168,5    | 369     | 2,8 | 17,27 | B103         | 132M/132SB | 2    | 16233         | 4638      |
| 168,2    | 383     | 1,6 | 8,62  | B083         | 132MA/132M | 4    | 12750         | 3643      |
| 161,7    | 399     | 2,3 | 8,97  | B103         | 132MA/132M | 4    | 16385         | 4681      |
| 158,8    | 392     | 1,6 | 18,32 | B083         | 132M/132SB | 2    | 12989         | 3711      |
| 152,7    | 407     | 2,6 | 19,06 | B103         | 132M/132SB | 2    | 16694         | 4770      |
| 138,2    | 467     | 1,4 | 10,49 | B083         | 132MA/132M | 4    | 13371         | 3820      |
| 132,8    | 486     | 2,1 | 10,92 | B103         | 132MA/132M | 4    | 17313         | 4947      |
| 125,1    | 515     | 1,5 | 11,59 | B083         | 132MA/132M | 4    | 13682         | 3909      |
| 122,8    | 507     | 2,1 | 23,70 | B103         | 132M/132SB | 2    | 17741         | 5069      |
| 121,8    | 535     | 2,9 | 7,97  | B123         | 160M       | 6    | 24861         | 7103      |
| 120,3    | 536     | 1,9 | 12,05 | B103         | 132MA/132M | 4    | 17786         | 5082      |
| 119,4    | 545     | 1,5 | 8,13  | B103         | 160M       | 6    | 17810         | 5089      |
| 116,2    | 555     | 3,6 | 12,48 | B123         | 132MA/132M | 4    | 25194         | 7198      |
| 112,4    | 553     | 3,8 | 25,89 | B123         | 132M/132SB | 2    | 25506         | 7287      |
| 109,8    | 567     | 2,0 | 26,51 | B103         | 132M/132SB | 2    | 18293         | 5226      |
| 108,9    | 571     | 1,1 | 26,71 | B083         | 132M/132SB | 2    | 14194         | 4055      |
| 108,2    | 602     | 1,6 | 8,97  | B103         | 160M       | 6    | 18287         | 5225      |
| 105,8    | 588     | 3,6 | 27,51 | B123         | 132M/132SB | 2    | 25914         | 7404      |
| 104,7    | 615     | 3,4 | 13,84 | B123         | 132MA/132M | 4    | 25882         | 7395      |
| 100,8    | 646     | 2,9 | 9,62  | B123         | 160M       | 6    | 26105         | 7459      |
| 100,5    | 641     | 1,3 | 14,43 | B083         | 132MA/132M | 4    | 14354         | 4101      |
| 98,7     | 631     | 1,0 | 29,50 | B083         | 132M/132SB | 2    | 14502         | 4143      |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 7,50 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i     | Gear<br>reducer | Motor      |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|-------|-----------------|------------|------|------------------------------|--------------------------|
|                         |                        |                |       |                 | Size       | Pole |                              |                          |
| 96,8                    | 666                    | 1,8            | 14,99 | B103            | 132MA/132M | 4    | 18853                        | 5386                     |
| 95,2                    | 653                    | 1,8            | 30,55 | B103            | 132M/132SB | 2    | 18999                        | 5428                     |
| 94,5                    | 658                    | 3,2            | 30,79 | B123            | 132M/132SB | 2    | 26676                        | 7622                     |
| 94,3                    | 684                    | 3,1            | 15,38 | B123            | 132MA/132M | 4    | 26583                        | 7595                     |
| 93,9                    | 694                    | 3,0            | 10,33 | B123            | 160M       | 6    | 26580                        | 7594                     |
| 93,1                    | 668                    | 3,1            | 31,26 | B123            | 132M/132SB | 2    | 26779                        | 7651                     |
| 88,8                    | 733                    | 1,4            | 10,92 | B103            | 160M       | 6    | 19256                        | 5502                     |
| 88,0                    | 707                    | 1,8            | 33,07 | B103            | 132M/132SB | 2    | 19396                        | 5542                     |
| 87,4                    | 738                    | 1,2            | 16,60 | B083            | 132MA/132M | 4    | 14765                        | 4219                     |
| 84,0                    | 768                    | 1,8            | 17,27 | B103            | 132MA/132M | 4    | 19556                        | 5587                     |
| 83,9                    | 741                    | 2,8            | 34,68 | B123            | 132M/132SB | 2    | 27484                        | 7852                     |
| 81,1                    | 767                    | 1,7            | 35,87 | B103            | 132M/132SB | 2    | 19807                        | 5659                     |
| 80,5                    | 809                    | 1,3            | 12,05 | B103            | 160M       | 6    | 19743                        | 5641                     |
| 79,1                    | 815                    | 1,0            | 18,32 | B083            | 132MA/132M | 4    | 15045                        | 4298                     |
| 78,1                    | 826                    | 2,7            | 18,58 | B123            | 132MA/132M | 4    | 27840                        | 7954                     |
| 77,7                    | 838                    | 2,5            | 12,48 | B123            | 160M       | 6    | 27830                        | 7952                     |
| 76,1                    | 847                    | 1,7            | 19,06 | B103            | 132MA/132M | 4    | 20046                        | 5727                     |
| 71,8                    | 866                    | 2,4            | 40,53 | B123            | 132M/132SB | 2    | 28539                        | 8154                     |
| 70,8                    | 879                    | 1,5            | 41,12 | B103            | 132M/132SB | 2    | 20500                        | 5857                     |
| 70,4                    | 916                    | 2,7            | 20,61 | B123            | 132MA/132M | 4    | 28528                        | 8151                     |
| 70,1                    | 929                    | 2,4            | 13,84 | B123            | 160M       | 6    | 28513                        | 8147                     |
| 67,0                    | 972                    | 3,3            | 14,49 | B143            | 160M       | 6    | 28074                        | 28074                    |
| 65,9                    | 944                    | 3,8            | 44,16 | B143            | 132M/132SB | 2    | 28331                        | 28331                    |
| 65,2                    | 954                    | 1,3            | 44,61 | B103            | 132M/132SB | 2    | 20912                        | 5975                     |
| 64,8                    | 960                    | 2,3            | 44,89 | B123            | 132M/132SB | 2    | 29226                        | 8350                     |
| 64,7                    | 1006                   | 1,3            | 14,99 | B103            | 160M       | 6    | 20823                        | 5949                     |
| 63,7                    | 1013                   | 2,8            | 22,78 | B123            | 132MA/132M | 4    | 29185                        | 8338                     |
| 63,1                    | 1032                   | 2,1            | 15,38 | B123            | 160M       | 6    | 29198                        | 8342                     |
| 61,5                    | 1011                   | 1,3            | 47,28 | B103            | 132M/132SB | 2    | 21207                        | 6059                     |
| 61,2                    | 1054                   | 1,3            | 23,70 | B103            | 132MA/132M | 4    | 21130                        | 6037                     |
| 60,2                    | 1034                   | 3,6            | 48,35 | B143            | 132M/132SB | 2    | 28996                        | 28996                    |
| 58,4                    | 1065                   | 2,3            | 49,80 | B123            | 132M/132SB | 2    | 29915                        | 8547                     |
| 57,9                    | 1074                   | 1,2            | 50,24 | B103            | 132M/132SB | 2    | 21512                        | 6146                     |
| 56,9                    | 1144                   | 2,9            | 17,04 | B143            | 160M       | 6    | 29244                        | 29244                    |
| 56,2                    | 1159                   | 1,3            | 17,27 | B103            | 160M       | 6    | 21518                        | 6148                     |
| 56,0                    | 1151                   | 2,4            | 25,89 | B123            | 132MA/132M | 4    | 30000                        | 8574                     |
| 54,9                    | 1133                   | 1,1            | 53,02 | B103            | 132M/132SB | 2    | 21783                        | 6224                     |
| 54,7                    | 1179                   | 1,3            | 26,51 | B103            | 132MA/132M | 4    | 21682                        | 6195                     |
| 54,7                    | 1136                   | 3,3            | 53,16 | B143            | 132M/132SB | 2    | 29695                        | 29695                    |
| 53,6                    | 1161                   | 2,1            | 54,30 | B123            | 132M/132SB | 2    | 30000                        | 8709                     |
| 53,3                    | 1168                   | 3,2            | 54,63 | B143            | 132M/132SB | 2    | 29896                        | 29896                    |
| 52,8                    | 1220                   | 3,8            | 27,44 | B143            | 132MA/132M | 4    | 29819                        | 29819                    |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 7,50 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i     | Gear<br>reducer | Motor      |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|-------|-----------------|------------|------|------------------------------|--------------------------|
|                         |                        |                |       |                 | Size       | Pole |                              |                          |
| 52,7                    | 1223                   | 2,3            | 27,51 | B123            | 132MA/132M | 4    | 30000                        | 8683                     |
| 52,2                    | 1247                   | 1,9            | 18,58 | B123            | 160M       | 6    | 30000                        | 8684                     |
| 52,0                    | 1252                   | 3,0            | 18,66 | B143            | 160M       | 6    | 29897                        | 29897                    |
| 50,9                    | 1279                   | 1,1            | 19,06 | B103            | 160M       | 6    | 21994                        | 6284                     |
| 49,7                    | 1251                   | 1,0            | 58,50 | B103            | 132M/132SB | 2    | 22000                        | 6363                     |
| 49,3                    | 1262                   | 3,0            | 59,02 | B143            | 132M/132SB | 2    | 30465                        | 30465                    |
| 49,0                    | 1269                   | 1,9            | 59,36 | B123            | 132M/132SB | 2    | 30000                        | 8872                     |
| 48,3                    | 1336                   | 3,5            | 30,05 | B143            | 132MA/132M | 4    | 30474                        | 30474                    |
| 47,5                    | 1358                   | 1,2            | 30,55 | B103            | 132MA/132M | 4    | 22000                        | 6391                     |
| 47,1                    | 1383                   | 1,9            | 20,61 | B123            | 160M       | 6    | 30000                        | 8864                     |
| 47,1                    | 1369                   | 2,0            | 30,79 | B123            | 132MA/132M | 4    | 30000                        | 8882                     |
| 46,5                    | 1338                   | 1,8            | 62,59 | B123            | 132M/132SB | 2    | 30000                        | 8967                     |
| 46,4                    | 1390                   | 2,0            | 31,26 | B123            | 132MA/132M | 4    | 30000                        | 8908                     |
| 46,2                    | 1409                   | 3,0            | 21,00 | B143            | 160M       | 6    | 30743                        | 30743                    |
| 44,9                    | 1387                   | 2,7            | 64,88 | B143            | 132M/132SB | 2    | 31160                        | 31160                    |
| 43,9                    | 1470                   | 1,2            | 33,07 | B103            | 132MA/132M | 4    | 22000                        | 6497                     |
| 43,9                    | 1467                   | 3,2            | 33,01 | B143            | 132MA/132M | 4    | 31149                        | 31149                    |
| 42,6                    | 1529                   | 1,9            | 22,78 | B123            | 160M       | 6    | 30000                        | 9032                     |
| 42,6                    | 1529                   | 3,0            | 22,77 | B143            | 160M       | 6    | 31320                        | 31320                    |
| 41,9                    | 1484                   | 1,7            | 69,43 | B123            | 132M/132SB | 2    | 30000                        | 9149                     |
| 41,8                    | 1542                   | 1,8            | 34,68 | B123            | 132MA/132M | 4    | 30000                        | 9082                     |
| 41,3                    | 1506                   | 2,5            | 70,43 | B143            | 132M/132SB | 2    | 31759                        | 31759                    |
| 40,9                    | 1591                   | 0,9            | 23,70 | B103            | 160M       | 6    | 22000                        | 6575                     |
| 40,9                    | 1521                   | 3,9            | 71,15 | B153            | 132M/132SB | 2    | 55763                        | 55763                    |
| 40,4                    | 1595                   | 1,1            | 35,87 | B103            | 132MA/132M | 4    | 22000                        | 6604                     |
| 39,5                    | 1630                   | 2,9            | 36,67 | B143            | 132MA/132M | 4    | 31895                        | 31895                    |
| 39,1                    | 1591                   | 1,7            | 74,42 | B123            | 132M/132SB | 2    | 30000                        | 9266                     |
| 37,8                    | 1720                   | 2,8            | 25,63 | B143            | 160M       | 6    | 32147                        | 32147                    |
| 37,7                    | 1649                   | 2,3            | 77,12 | B143            | 132M/132SB | 2    | 32413                        | 32413                    |
| 37,7                    | 1651                   | 3,6            | 77,22 | B153            | 132M/132SB | 2    | 57162                        | 57162                    |
| 37,5                    | 1738                   | 1,7            | 25,89 | B123            | 160M       | 6    | 30000                        | 9234                     |
| 36,4                    | 1711                   | 1,5            | 80,04 | B123            | 132M/132SB | 2    | 30000                        | 9384                     |
| 36,0                    | 1791                   | 2,7            | 40,29 | B143            | 132MA/132M | 4    | 32552                        | 32552                    |
| 35,8                    | 1802                   | 1,6            | 40,53 | B123            | 132MA/132M | 4    | 30000                        | 9327                     |
| 35,3                    | 1828                   | 0,9            | 41,12 | B103            | 132MA/132M | 4    | 22000                        | 6778                     |
| 35,3                    | 1846                   | 1,6            | 27,51 | B123            | 160M       | 6    | 30000                        | 9324                     |
| 35,3                    | 1842                   | 2,6            | 27,44 | B143            | 160M       | 6    | 32618                        | 32618                    |
| 34,7                    | 1793                   | 3,3            | 83,89 | B153            | 132M/132SB | 2    | 58604                        | 58604                    |
| 34,0                    | 1829                   | 2,1            | 85,54 | B143            | 132M/132SB | 2    | 33150                        | 33150                    |
| 33,2                    | 1874                   | 3,2            | 87,65 | B153            | 132M/132SB | 2    | 59379                        | 59379                    |
| 32,8                    | 1963                   | 2,4            | 44,16 | B143            | 132MA/132M | 4    | 33179                        | 33179                    |
| 32,4                    | 1921                   | 1,4            | 89,87 | B123            | 132M/132SB | 2    | 30000                        | 9561                     |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 7,50 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor      |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|------------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size       | Pole |                              |                          |
| 32,3                    | 1996                   | 1,5            | 44,89  | B123            | 132MA/132M | 4    | 30000                        | 9473                     |
| 32,3                    | 2017                   | 2,4            | 30,05  | B143            | 160M       | 6    | 33229                        | 33229                    |
| 31,5                    | 2067                   | 1,4            | 30,79  | B123            | 160M       | 6    | 30000                        | 9480                     |
| 31,3                    | 1989                   | 3,0            | 93,05  | B153            | 132M/132SB | 2    | 60447                        | 60447                    |
| 31,0                    | 2098                   | 1,4            | 31,26  | B123            | 160M       | 6    | 30000                        | 9500                     |
| 30,9                    | 2012                   | 1,9            | 94,13  | B143            | 132M/132SB | 2    | 33815                        | 33815                    |
| 30,5                    | 2113                   | 3,8            | 47,53  | B153            | 132MA/132M | 4    | 60787                        | 60787                    |
| 30,0                    | 2150                   | 2,3            | 48,35  | B143            | 132MA/132M | 4    | 33782                        | 33782                    |
| 29,4                    | 2216                   | 2,2            | 33,01  | B143            | 160M       | 6    | 33845                        | 33845                    |
| 29,2                    | 2131                   | 1,2            | 99,70  | B123            | 132M/132SB | 2    | 30000                        | 9706                     |
| 29,1                    | 2214                   | 1,4            | 49,80  | B123            | 132MA/132M | 4    | 30000                        | 9608                     |
| 28,8                    | 2257                   | 3,7            | 33,63  | B153            | 160M       | 6    | 61770                        | 61770                    |
| 28,7                    | 2248                   | 3,6            | 50,56  | B153            | 132MA/132M | 4    | 61906                        | 61906                    |
| 28,2                    | 2204                   | 2,7            | 103,12 | B153            | 132M/132SB | 2    | 62316                        | 62316                    |
| 28,0                    | 2328                   | 1,3            | 34,68  | B123            | 160M       | 6    | 30000                        | 9626                     |
| 27,7                    | 2350                   | 3,6            | 35,02  | B153            | 160M       | 6    | 62506                        | 62506                    |
| 27,5                    | 2262                   | 1,7            | 105,83 | B143            | 132M/132SB | 2    | 34603                        | 34603                    |
| 27,3                    | 2280                   | 1,2            | 106,65 | B123            | 132M/132SB | 2    | 30000                        | 9793                     |
| 27,3                    | 2363                   | 2,1            | 53,16  | B143            | 132MA/132M | 4    | 34392                        | 34392                    |
| 26,7                    | 2414                   | 1,3            | 54,30  | B123            | 132MA/132M | 4    | 30000                        | 9708                     |
| 26,5                    | 2461                   | 2,0            | 36,67  | B143            | 160M       | 6    | 34507                        | 34507                    |
| 26,5                    | 2429                   | 2,1            | 54,63  | B143            | 132MA/132M | 4    | 34562                        | 34562                    |
| 26,5                    | 2429                   | 3,3            | 54,64  | B153            | 132MA/132M | 4    | 63331                        | 63331                    |
| 26,0                    | 2393                   | 1,6            | 111,94 | B143            | 132M/132SB | 2    | 34968                        | 34968                    |
| 25,3                    | 2546                   | 3,1            | 57,27  | B153            | 132MA/132M | 4    | 64206                        | 64206                    |
| 25,0                    | 2605                   | 3,2            | 38,81  | B153            | 160M       | 6    | 64407                        | 64407                    |
| 24,6                    | 2624                   | 1,9            | 59,02  | B143            | 132MA/132M | 4    | 35033                        | 35033                    |
| 24,4                    | 2639                   | 1,2            | 59,36  | B123            | 132MA/132M | 4    | 30000                        | 9796                     |
| 24,3                    | 2557                   | 1,0            | 119,60 | B123            | 132M/132SB | 2    | 30000                        | 9922                     |
| 24,1                    | 2704                   | 1,9            | 40,29  | B143            | 160M       | 6    | 35068                        | 35068                    |
| 23,9                    | 2720                   | 1,1            | 40,53  | B123            | 160M       | 6    | 30000                        | 9779                     |
| 23,8                    | 2708                   | 3,0            | 60,92  | B153            | 132MA/132M | 4    | 65000                        | 65000                    |
| 23,5                    | 2648                   | 2,3            | 123,88 | B153            | 132M/132SB | 2    | 65000                        | 65000                    |
| 23,4                    | 2664                   | 1,4            | 124,62 | B143            | 132M/132SB | 2    | 35639                        | 35639                    |
| 23,2                    | 2782                   | 1,2            | 62,59  | B123            | 132MA/132M | 4    | 30000                        | 9842                     |
| 22,9                    | 2839                   | 3,0            | 42,30  | B153            | 160M       | 6    | 65000                        | 65000                    |
| 22,8                    | 2822                   | 2,8            | 63,47  | B153            | 132MA/132M | 4    | 65000                        | 65000                    |
| 22,3                    | 2884                   | 1,7            | 64,88  | B143            | 132MA/132M | 4    | 35580                        | 35580                    |
| 22,0                    | 2964                   | 1,7            | 44,16  | B143            | 160M       | 6    | 35582                        | 35582                    |
| 21,7                    | 2870                   | 2,1            | 134,27 | B153            | 132M/132SB | 2    | 65000                        | 65000                    |
| 21,6                    | 3013                   | 1,0            | 44,89  | B123            | 160M       | 6    | 30000                        | 9853                     |
| 21,3                    | 2917                   | 1,3            | 136,44 | B143            | 132M/132SB | 2    | 36173                        | 36173                    |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 7,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 20,9        | 3087       | 1,1 | 69,43  | B123            | 132MA/132M    | 4    | 30000            | 9912         |
| 20,6        | 3131       | 1,6 | 70,43  | B143            | 132MA/132M    | 4    | 36022            | 36022        |
| 20,4        | 3190       | 2,6 | 47,53  | B153            | 160M          | 6    | 65000            | 65000        |
| 20,4        | 3163       | 2,5 | 71,15  | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 20,1        | 3245       | 1,6 | 48,35  | B143            | 160M          | 6    | 36052            | 36052        |
| 19,5        | 3343       | 1,0 | 49,80  | B123            | 160M          | 6    | 30000            | 9901         |
| 19,5        | 3308       | 1,1 | 74,42  | B123            | 132MA/132M    | 4    | 30000            | 9945         |
| 19,5        | 3198       | 1,2 | 149,59 | B143            | 132M/132SB    | 2    | 36678            | 36678        |
| 19,5        | 3191       | 1,9 | 149,26 | B153            | 132M/132SB    | 2    | 65000            | 65000        |
| 19,2        | 3394       | 2,5 | 50,56  | B153            | 160M          | 6    | 65000            | 65000        |
| 19,0        | 3423       | 4,0 | 51,00  | B163            | 160M          | 6    | 80000            | 65000        |
| 18,8        | 3428       | 1,5 | 77,12  | B143            | 132MA/132M    | 4    | 36472            | 36472        |
| 18,8        | 3433       | 2,3 | 77,22  | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 18,2        | 3568       | 1,5 | 53,16  | B143            | 160M          | 6    | 36497            | 36497        |
| 18,1        | 3558       | 1,0 | 80,04  | B123            | 132MA/132M    | 4    | 30000            | 9964         |
| 18,1        | 3600       | 3,8 | 53,63  | B163            | 160M          | 6    | 80000            | 65000        |
| 17,9        | 3645       | 0,9 | 54,30  | B123            | 160M          | 6    | 30000            | 9918         |
| 17,8        | 3667       | 1,4 | 54,63  | B143            | 160M          | 6    | 36615            | 36615        |
| 17,8        | 3667       | 2,3 | 54,64  | B153            | 160M          | 6    | 65000            | 65000        |
| 17,6        | 3536       | 1,7 | 165,42 | B153            | 132M/132SB    | 2    | 65000            | 65000        |
| 17,5        | 3560       | 1,1 | 166,53 | B143            | 132M/132SB    | 2    | 37212            | 37212        |
| 17,3        | 3729       | 2,1 | 83,89  | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 17,0        | 3803       | 1,3 | 85,54  | B143            | 132MA/132M    | 4    | 36927            | 36927        |
| 16,9        | 3844       | 2,2 | 57,27  | B153            | 160M          | 6    | 65000            | 65000        |
| 16,5        | 3897       | 2,1 | 87,65  | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 16,5        | 3958       | 3,4 | 58,97  | B163            | 160M          | 6    | 80000            | 65000        |
| 16,4        | 3961       | 1,3 | 59,02  | B143            | 160M          | 6    | 36924            | 36924        |
| 15,9        | 4089       | 2,1 | 60,92  | B153            | 160M          | 6    | 65000            | 65000        |
| 15,6        | 4137       | 1,9 | 93,05  | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 15,4        | 4185       | 1,2 | 94,13  | B143            | 132MA/132M    | 4    | 37282            | 37282        |
| 15,3        | 4260       | 2,0 | 63,47  | B153            | 160M          | 6    | 65000            | 65000        |
| 15,0        | 4355       | 1,2 | 64,88  | B143            | 160M          | 6    | 37242            | 37242        |
| 14,1        | 4584       | 1,7 | 103,12 | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 13,9        | 4683       | 2,9 | 69,78  | B163            | 160M          | 6    | 80000            | 65000        |
| 13,8        | 4728       | 1,1 | 70,43  | B143            | 160M          | 6    | 37457            | 37457        |
| 13,7        | 4705       | 1,1 | 105,83 | B143            | 132MA/132M    | 4    | 37619            | 37619        |
| 13,6        | 4775       | 1,8 | 71,15  | B153            | 160M          | 6    | 65000            | 65000        |
| 13,0        | 4976       | 1,0 | 111,94 | B143            | 132MA/132M    | 4    | 37736            | 37736        |
| 12,6        | 5176       | 1,0 | 77,12  | B143            | 160M          | 6    | 37622            | 37622        |
| 12,6        | 5183       | 1,6 | 77,22  | B153            | 160M          | 6    | 65000            | 65000        |
| 12,6        | 5149       | 2,7 | 76,72  | B163            | 160M          | 6    | 80000            | 65000        |
| 11,7        | 5507       | 1,5 | 123,88 | B153            | 132MA/132M    | 4    | 65000            | 65000        |

## 5.1 B/BA GEARED MOTORS (50Hz)

## 7,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 11,6        | 5540       | 0,9 | 124,62 | B143            | 132MA/132M    | 4    | 37870            | 37870        |
| 11,6        | 5631       | 1,5 | 83,89  | B153            | 160M          | 6    | 65000            | 65000        |
| 11,3        | 5742       | 0,9 | 85,54  | B143            | 160M          | 6    | 37702            | 37702        |
| 11,1        | 5883       | 1,4 | 87,65  | B153            | 160M          | 6    | 65000            | 65000        |
| 11,1        | 5875       | 2,3 | 87,54  | B163            | 160M          | 6    | 80000            | 65000        |
| 10,8        | 5969       | 1,3 | 134,27 | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 10,4        | 6245       | 1,3 | 93,05  | B153            | 160M          | 6    | 65000            | 65000        |
| 10,1        | 6460       | 2,1 | 96,25  | B163            | 160M          | 6    | 80000            | 65000        |
| 9,7         | 6636       | 1,2 | 149,26 | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 9,4         | 6921       | 1,2 | 103,12 | B153            | 160M          | 6    | 65000            | 65000        |
| 9,3         | 6976       | 2,0 | 103,93 | B163            | 160M          | 6    | 80000            | 65000        |
| 8,8         | 7354       | 1,1 | 165,42 | B153            | 132MA/132M    | 4    | 65000            | 65000        |
| 8,5         | 7670       | 1,8 | 114,27 | B163            | 160M          | 6    | 80000            | 65000        |
| 7,8         | 8315       | 1,0 | 123,88 | B153            | 160M          | 6    | 65000            | 65000        |
| 7,7         | 8476       | 1,6 | 126,29 | B163            | 160M          | 6    | 80000            | 65000        |
| 7,2         | 9012       | 0,9 | 134,27 | B153            | 160M          | 6    | 65000            | 65000        |
| 7,0         | 9320       | 1,5 | 138,85 | B163            | 160M          | 6    | 80000            | 65000        |
| 6,3         | 10392      | 1,3 | 154,83 | B163            | 160M          | 6    | 80000            | 65000        |

## 9,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------|------|------------------|--------------|
| 189,2       | 403        | 3,9 | 15,38 | B123            | 132M/132MA    | 2    | 21768            | 6219         |
| 185,7       | 426        | 1,2 | 7,81  | B083            | 132MB         | 4    | 12118            | 3462         |
| 182,0       | 434        | 3,5 | 7,97  | B123            | 132MB         | 4    | 21927            | 6265         |
| 178,4       | 443        | 1,8 | 8,13  | B103            | 132MB         | 4    | 15697            | 4485         |
| 168,5       | 453        | 2,3 | 17,27 | B103            | 132M/132MA    | 2    | 15992            | 4569         |
| 168,2       | 470        | 1,3 | 8,62  | B083            | 132MB         | 4    | 12399            | 3543         |
| 161,7       | 489        | 1,8 | 8,97  | B103            | 132MB         | 4    | 16125            | 4607         |
| 156,7       | 487        | 3,4 | 18,58 | B123            | 132M/132MA    | 2    | 22900            | 6543         |
| 152,7       | 500        | 2,1 | 19,06 | B103            | 132M/132MA    | 2    | 16428            | 4694         |
| 150,7       | 525        | 3,4 | 9,62  | B123            | 132MB         | 4    | 23049            | 6586         |
| 141,2       | 540        | 3,5 | 20,61 | B123            | 132M/132MA    | 2    | 23531            | 6723         |
| 140,3       | 564        | 3,5 | 10,33 | B123            | 132MB         | 4    | 23480            | 6708         |
| 138,2       | 572        | 1,1 | 10,49 | B083            | 132MB         | 4    | 12944            | 3698         |
| 132,8       | 596        | 1,7 | 10,92 | B103            | 132MB         | 4    | 16997            | 4856         |
| 127,7       | 597        | 3,5 | 22,78 | B123            | 132M/132MA    | 2    | 24144            | 6898         |
| 125,1       | 632        | 1,2 | 11,59 | B083            | 132MB         | 4    | 13210            | 3774         |
| 122,8       | 621        | 1,7 | 23,70 | B103            | 132M/132MA    | 2    | 17411            | 4975         |
| 120,3       | 657        | 1,5 | 12,05 | B103            | 132MB         | 4    | 17437            | 4982         |
| 116,2       | 681        | 2,9 | 12,48 | B123            | 132MB         | 4    | 24616            | 7033         |
| 112,4       | 679        | 3,1 | 25,89 | B123            | 132M/132MA    | 2    | 24929            | 7123         |

## 9,20 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i     | Gear<br>reducer | Motor                |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|-------|-----------------|----------------------|------|------------------------------|--------------------------|
|                         |                        |                |       |                 | Size                 | Pole |                              |                          |
| 105,8                   | 721                    | 2,9            | 27,51 | B123            | 132M/132MA           | 2    | 25302                        | 7229                     |
| 104,7                   | 755                    | 2,8            | 13,84 | B123            | 132MB                | 4    | 25241                        | 7212                     |
| 100,5                   | 787                    | 1,0            | 14,43 | B083            | 132MB                | 4    | 13766                        | 3933                     |
| 100,1                   | 790                    | 3,9            | 14,49 | B143            | 132MB                | 4    | 24782                        | 24782                    |
| 96,8                    | 817                    | 1,5            | 14,99 | B103            | 132MB                | 4    | 18418                        | 5262                     |
| 95,2                    | 801                    | 1,5            | 30,55 | B103            | 132M/132MA           | 2    | 18573                        | 5307                     |
| 94,5                    | 807                    | 2,6            | 30,79 | B123            | 132M/132MA           | 2    | 25991                        | 7426                     |
| 94,3                    | 839                    | 2,5            | 15,38 | B123            | 132MB                | 4    | 25871                        | 7392                     |
| 93,1                    | 820                    | 2,6            | 31,26 | B123            | 132M/132MA           | 2    | 26083                        | 7452                     |
| 88,0                    | 867                    | 1,5            | 33,07 | B103            | 132M/132MA           | 2    | 18935                        | 5410                     |
| 87,4                    | 905                    | 0,9            | 16,60 | B083            | 132MB                | 4    | 14089                        | 4025                     |
| 85,1                    | 929                    | 3,4            | 17,04 | B143            | 132MB                | 4    | 25842                        | 25842                    |
| 84,0                    | 942                    | 1,5            | 17,27 | B103            | 132MB                | 4    | 19056                        | 5445                     |
| 83,9                    | 909                    | 2,3            | 34,68 | B123            | 132M/132MA           | 2    | 26711                        | 7632                     |
| 81,1                    | 941                    | 1,4            | 35,87 | B103            | 132M/132MA           | 2    | 19307                        | 5516                     |
| 79,4                    | 962                    | 3,7            | 36,67 | B143            | 132M/132MA           | 2    | 26410                        | 26410                    |
| 78,1                    | 1013                   | 2,2            | 18,58 | B123            | 132MB                | 4    | 26980                        | 7709                     |
| 77,7                    | 1017                   | 3,5            | 18,66 | B143            | 132MB                | 4    | 26435                        | 26435                    |
| 76,1                    | 1039                   | 1,3            | 19,06 | B103            | 132MB                | 4    | 19494                        | 5570                     |
| 72,2                    | 1056                   | 3,4            | 40,29 | B143            | 132M/132MA           | 2    | 27037                        | 27037                    |
| 71,8                    | 1063                   | 2,0            | 40,53 | B123            | 132M/132MA           | 2    | 27636                        | 7896                     |
| 70,8                    | 1078                   | 1,2            | 41,12 | B103            | 132M/132MA           | 2    | 19927                        | 5693                     |
| 70,4                    | 1124                   | 2,2            | 20,61 | B123            | 132MB                | 4    | 27573                        | 7878                     |
| 69,1                    | 1145                   | 3,5            | 21,00 | B143            | 132MB                | 4    | 27208                        | 27208                    |
| 65,9                    | 1158                   | 3,1            | 44,16 | B143            | 132M/132MA           | 2    | 27648                        | 27648                    |
| 65,2                    | 1170                   | 1,1            | 44,61 | B103            | 132M/132MA           | 2    | 20290                        | 5797                     |
| 64,8                    | 1177                   | 1,9            | 44,89 | B123            | 132M/132MA           | 2    | 28226                        | 8064                     |
| 63,7                    | 1242                   | 2,3            | 22,78 | B123            | 132MB                | 4    | 28129                        | 8037                     |
| 63,7                    | 1242                   | 3,5            | 22,77 | B143            | 132MB                | 4    | 27737                        | 27737                    |
| 61,5                    | 1240                   | 1,0            | 47,28 | B103            | 132M/132MA           | 2    | 20548                        | 5871                     |
| 61,2                    | 1292                   | 1,1            | 23,70 | B103            | 132MB                | 4    | 20443                        | 5841                     |
| 60,2                    | 1268                   | 3,0            | 48,35 | B143            | 132M/132MA           | 2    | 28249                        | 28249                    |
| 58,4                    | 1306                   | 1,8            | 49,80 | B123            | 132M/132MA           | 2    | 28806                        | 8230                     |
| 56,6                    | 1398                   | 3,3            | 25,63 | B143            | 132MB                | 4    | 28500                        | 28500                    |
| 56,0                    | 1412                   | 2,0            | 25,89 | B123            | 132MB                | 4    | 28809                        | 8231                     |
| 54,7                    | 1446                   | 1,0            | 26,51 | B103            | 132MB                | 4    | 20914                        | 5975                     |
| 54,7                    | 1394                   | 2,7            | 53,16 | B143            | 132M/132MA           | 2    | 28873                        | 28873                    |
| 53,6                    | 1424                   | 1,7            | 54,30 | B123            | 132M/132MA           | 2    | 29271                        | 8363                     |
| 53,3                    | 1432                   | 2,6            | 54,63 | B143            | 132M/132MA           | 2    | 29051                        | 29051                    |
| 52,8                    | 1497                   | 3,1            | 27,44 | B143            | 132MB                | 4    | 28937                        | 28937                    |
| 52,7                    | 1500                   | 1,9            | 27,51 | B123            | 132MB                | 4    | 29117                        | 8319                     |
| 50,8                    | 1502                   | 4,0            | 57,27 | B153            | 132MA <sup>(1)</sup> | 2    | 51785                        | 51785                    |

<sup>(1)</sup> Available only with brake motor (TBS)

## 5.1 B/BA GEARED MOTORS (50Hz)

## 9,20 kW

| n <sub>2</sub><br>[rpm] | M <sub>2</sub><br>[Nm] | f <sub>s</sub> | i      | Gear<br>reducer | Motor      |      | Fr <sub>2</sub><br>D-S-P [N] | Fr <sub>2</sub><br>C [N] |
|-------------------------|------------------------|----------------|--------|-----------------|------------|------|------------------------------|--------------------------|
|                         |                        |                |        |                 | Size       | Pole |                              |                          |
| 49,3                    | 1548                   | 2,4            | 59,02  | B143            | 132M/132MA | 2    | 29552                        | 29552                    |
| 49,0                    | 1556                   | 1,5            | 59,36  | B123            | 132M/132MA | 2    | 29730                        | 8494                     |
| 48,3                    | 1639                   | 2,9            | 30,05  | B143            | 132MB      | 4    | 29508                        | 29508                    |
| 47,8                    | 1598                   | 3,8            | 60,92  | B153            | 132M/132MA | 2    | 52757                        | 52757                    |
| 47,5                    | 1666                   | 1,0            | 30,55  | B103            | 132MB      | 4    | 21481                        | 6138                     |
| 47,1                    | 1679                   | 1,7            | 30,79  | B123            | 132MB      | 4    | 29660                        | 8474                     |
| 46,5                    | 1641                   | 1,5            | 62,59  | B123            | 132M/132MA | 2    | 29991                        | 8569                     |
| 46,4                    | 1705                   | 1,6            | 31,26  | B123            | 132MB      | 4    | 29729                        | 8494                     |
| 45,8                    | 1664                   | 3,6            | 63,47  | B153            | 132M/132MA | 2    | 53409                        | 53409                    |
| 44,9                    | 1701                   | 2,2            | 64,88  | B143            | 132M/132MA | 2    | 30157                        | 30157                    |
| 43,9                    | 1803                   | 0,9            | 33,07  | B103            | 132MB      | 4    | 21782                        | 6223                     |
| 43,9                    | 1800                   | 2,6            | 33,01  | B143            | 132MB      | 4    | 30087                        | 30087                    |
| 41,9                    | 1821                   | 1,4            | 69,43  | B123            | 132M/132MA | 2    | 30000                        | 8707                     |
| 41,8                    | 1891                   | 1,5            | 34,68  | B123            | 132MB      | 4    | 30000                        | 8623                     |
| 41,3                    | 1847                   | 2,0            | 70,43  | B143            | 132M/132MA | 2    | 30670                        | 30670                    |
| 40,9                    | 1866                   | 3,2            | 71,15  | B153            | 132M/132MA | 2    | 55257                        | 55257                    |
| 39,5                    | 2000                   | 2,4            | 36,67  | B143            | 132MB      | 4    | 30716                        | 30716                    |
| 39,1                    | 1951                   | 1,3            | 74,42  | B123            | 132M/132MA | 2    | 30000                        | 8792                     |
| 37,7                    | 2022                   | 1,9            | 77,12  | B143            | 132M/132MA | 2    | 31221                        | 31221                    |
| 37,7                    | 2025                   | 3,0            | 77,22  | B153            | 132M/132MA | 2    | 56613                        | 56613                    |
| 36,4                    | 2099                   | 1,3            | 80,04  | B123            | 132M/132MA | 2    | 30000                        | 8875                     |
| 36,0                    | 2197                   | 2,2            | 40,29  | B143            | 132MB      | 4    | 31257                        | 31257                    |
| 35,8                    | 2210                   | 1,3            | 40,53  | B123            | 132MB      | 4    | 30000                        | 8790                     |
| 34,7                    | 2200                   | 2,7            | 83,89  | B153            | 132M/132MA | 2    | 58007                        | 58007                    |
| 34,3                    | 2307                   | 3,5            | 42,30  | B153            | 132MB      | 4    | 58089                        | 58089                    |
| 34,0                    | 2243                   | 1,7            | 85,54  | B143            | 132M/132MA | 2    | 31828                        | 31828                    |
| 33,2                    | 2298                   | 2,6            | 87,65  | B153            | 132M/132MA | 2    | 58756                        | 58756                    |
| 32,8                    | 2408                   | 2,0            | 44,16  | B143            | 132MB      | 4    | 31759                        | 31759                    |
| 32,4                    | 2356                   | 1,1            | 89,87  | B123            | 132M/132MA | 2    | 30000                        | 8989                     |
| 32,3                    | 2448                   | 1,2            | 44,89  | B123            | 132MB      | 4    | 30000                        | 8879                     |
| 31,3                    | 2440                   | 2,5            | 93,05  | B153            | 132M/132MA | 2    | 59785                        | 59785                    |
| 30,9                    | 2468                   | 1,5            | 94,13  | B143            | 132M/132MA | 2    | 32360                        | 32360                    |
| 30,5                    | 2592                   | 3,1            | 47,53  | B153            | 132MB      | 4    | 60085                        | 60085                    |
| 30,0                    | 2637                   | 1,9            | 48,35  | B143            | 132MB      | 4    | 32228                        | 32228                    |
| 29,2                    | 2614                   | 1,0            | 99,70  | B123            | 132M/132MA | 2    | 30000                        | 9072                     |
| 29,1                    | 2716                   | 1,2            | 49,80  | B123            | 132MB      | 4    | 30000                        | 8949                     |
| 28,7                    | 2757                   | 2,9            | 50,56  | B153            | 132MB      | 4    | 61158                        | 61158                    |
| 28,2                    | 2704                   | 2,2            | 103,12 | B153            | 132M/132MA | 2    | 61583                        | 61583                    |
| 27,5                    | 2775                   | 1,4            | 105,83 | B143            | 132M/132MA | 2    | 32967                        | 32967                    |
| 27,3                    | 2899                   | 1,7            | 53,16  | B143            | 132MB      | 4    | 32683                        | 32683                    |
| 26,7                    | 2961                   | 1,1            | 54,30  | B123            | 132MB      | 4    | 30000                        | 8989                     |
| 26,5                    | 2979                   | 1,7            | 54,63  | B143            | 132MB      | 4    | 32806                        | 32806                    |



## 9,20 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------|------|------------------|--------------|
| 26,5        | 2980       | 2,7 | 54,64  | B153            | 132MB         | 4    | 62523            | 62523        |
| 26,0        | 2935       | 1,3 | 111,94 | B143            | 132M/132MA    | 2    | 33238            | 33238        |
| 25,3        | 3123       | 2,6 | 57,27  | B153            | 132MB         | 4    | 63359            | 63359        |
| 24,6        | 3218       | 1,6 | 59,02  | B143            | 132MB         | 4    | 33136            | 33136        |
| 24,4        | 3237       | 1,0 | 59,36  | B123            | 132MB         | 4    | 30000            | 9011         |
| 23,8        | 3322       | 2,4 | 60,92  | B153            | 132MB         | 4    | 64467            | 64467        |
| 23,5        | 3248       | 1,8 | 123,88 | B153            | 132M/132MA    | 2    | 64875            | 64875        |
| 23,4        | 3268       | 1,1 | 124,62 | B143            | 132M/132MA    | 2    | 33713            | 33713        |
| 23,2        | 3413       | 1,0 | 62,59  | B123            | 132MB         | 4    | 30000            | 9014         |
| 22,8        | 3461       | 2,3 | 63,47  | B153            | 132MB         | 4    | 65000            | 65000        |
| 22,3        | 3538       | 1,4 | 64,88  | B143            | 132MB         | 4    | 33494            | 33494        |
| 21,7        | 3521       | 1,7 | 134,27 | B153            | 132M/132MA    | 2    | 65000            | 65000        |
| 21,3        | 3578       | 1,0 | 136,44 | B143            | 132M/132MA    | 2    | 34064            | 34064        |
| 20,6        | 3841       | 1,3 | 70,43  | B143            | 132MB         | 4    | 33758            | 33758        |
| 20,4        | 3880       | 2,1 | 71,15  | B153            | 132MB         | 4    | 65000            | 65000        |
| 19,5        | 3914       | 1,5 | 149,26 | B153            | 132M/132MA    | 2    | 65000            | 65000        |
| 18,8        | 4205       | 1,2 | 77,12  | B143            | 132MB         | 4    | 33993            | 33993        |
| 18,8        | 4211       | 1,9 | 77,22  | B153            | 132MB         | 4    | 65000            | 65000        |
| 17,6        | 4338       | 1,4 | 165,42 | B153            | 132M/132MA    | 2    | 65000            | 65000        |
| 17,3        | 4575       | 1,7 | 83,89  | B153            | 132MB         | 4    | 65000            | 65000        |
| 17,0        | 4665       | 1,1 | 85,54  | B143            | 132MB         | 4    | 34177            | 34177        |
| 16,5        | 4780       | 1,7 | 87,65  | B153            | 132MB         | 4    | 65000            | 65000        |
| 15,6        | 5074       | 1,6 | 93,05  | B153            | 132MB         | 4    | 65000            | 65000        |
| 15,4        | 5133       | 1,0 | 94,13  | B143            | 132MB         | 4    | 34256            | 34256        |
| 14,1        | 5623       | 1,4 | 103,12 | B153            | 132MB         | 4    | 65000            | 65000        |
| 11,7        | 6755       | 1,2 | 123,88 | B153            | 132MB         | 4    | 65000            | 65000        |
| 10,8        | 7322       | 1,1 | 134,27 | B153            | 132MB         | 4    | 65000            | 65000        |
| 9,7         | 8140       | 1,0 | 149,26 | B153            | 132MB         | 4    | 65000            | 65000        |

## 11,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 233,2       | 391        | 3,8 | 12,48 | B123            | 132MB <sup>(1)</sup> | 2    | 20248            | 5785         |
| 210,2       | 434        | 3,6 | 13,84 | B123            | 132MB <sup>(1)</sup> | 2    | 20820            | 5949         |
| 189,2       | 482        | 3,3 | 15,38 | B123            | 132MB <sup>(1)</sup> | 2    | 21405            | 6116         |
| 184,4       | 513        | 1,0 | 7,81  | B083            | 132MC <sup>(1)</sup> | 4    | 11798            | 3371         |
| 180,8       | 523        | 2,9 | 7,97  | B123            | 132MC/160MA/160S     | 4    | 21575            | 6164         |
| 177,2       | 534        | 1,5 | 8,13  | B103            | 132MC/160MA/160S     | 4    | 15475            | 4422         |
| 167,0       | 566        | 1,1 | 8,62  | B083            | 132MC <sup>(1)</sup> | 4    | 12044            | 3441         |
| 160,6       | 589        | 1,5 | 8,97  | B103            | 132MC/160MA/160S     | 4    | 15878            | 4537         |
| 156,7       | 582        | 2,8 | 18,58 | B123            | 132MB <sup>(1)</sup> | 2    | 22462            | 6418         |
| 149,7       | 632        | 2,8 | 9,62  | B123            | 132MC/160MA/160S     | 4    | 22616            | 6462         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 11,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 141,2       | 646        | 2,9 | 20,61 | B123            | 132MB <sup>(1)</sup> | 2    | 23045            | 6584         |
| 139,3       | 678        | 2,9 | 10,33 | B123            | 132MC/160MA/160S     | 4    | 23011            | 6575         |
| 137,2       | 689        | 0,9 | 10,49 | B083            | 132MC <sup>(1)</sup> | 4    | 12506            | 3573         |
| 131,9       | 717        | 1,4 | 10,92 | B103            | 132MC/160MA/160S     | 4    | 16690            | 4769         |
| 127,7       | 714        | 2,9 | 22,78 | B123            | 132MB <sup>(1)</sup> | 2    | 23607            | 6745         |
| 124,3       | 761        | 1,0 | 11,59 | B083            | 132MC <sup>(1)</sup> | 4    | 12724            | 3635         |
| 121,8       | 784        | 2,0 | 7,97  | B123            | 160L                 | 6    | 23714            | 6775         |
| 121,3       | 779        | 4,0 | 11,87 | B143            | 132MC/160S           | 4    | 23137            | 23137        |
| 119,5       | 791        | 1,3 | 12,05 | B103            | 132MC/160MA/160S     | 4    | 17096            | 4885         |
| 119,4       | 800        | 1,0 | 8,13  | B103            | 160L                 | 6    | 17078            | 4879         |
| 115,4       | 819        | 2,4 | 12,48 | B123            | 132MC/160MA/160S     | 4    | 24042            | 6869         |
| 112,4       | 812        | 2,6 | 25,89 | B123            | 132MB <sup>(1)</sup> | 2    | 24319            | 6948         |
| 108,2       | 883        | 1,1 | 8,97  | B103            | 160L                 | 6    | 17480            | 4994         |
| 105,8       | 863        | 2,4 | 27,51 | B123            | 132MB <sup>(1)</sup> | 2    | 24653            | 7044         |
| 104,0       | 909        | 2,3 | 13,84 | B123            | 132MC/160MA/160S     | 4    | 24599            | 7028         |
| 100,8       | 947        | 2,0 | 9,62  | B123            | 160L                 | 6    | 24720            | 7063         |
| 99,4        | 951        | 3,3 | 14,49 | B143            | 132MC/160MA/160S     | 4    | 24331            | 24331        |
| 96,9        | 942        | 3,7 | 30,05 | B143            | 132MB <sup>(1)</sup> | 2    | 24596            | 24596        |
| 96,1        | 984        | 1,2 | 14,99 | B103            | 132MC/160MA/160S     | 4    | 17987            | 5139         |
| 94,5        | 965        | 2,2 | 30,79 | B123            | 132MB <sup>(1)</sup> | 2    | 25264            | 7218         |
| 93,9        | 1017       | 2,1 | 10,33 | B123            | 160L                 | 6    | 25092            | 7169         |
| 93,6        | 1010       | 2,1 | 15,38 | B123            | 132MC/160MA/160S     | 4    | 25153            | 7186         |
| 93,1        | 980        | 2,1 | 31,26 | B123            | 132MB <sup>(1)</sup> | 2    | 25346            | 7242         |
| 89,5        | 1067       | 3,0 | 10,84 | B143            | 160L                 | 6    | 24927            | 24927        |
| 88,8        | 1075       | 1,0 | 10,92 | B103            | 160L                 | 6    | 18272            | 5221         |
| 88,2        | 1035       | 3,4 | 33,01 | B143            | 132MB <sup>(1)</sup> | 2    | 25170            | 25170        |
| 84,5        | 1119       | 2,9 | 17,04 | B143            | 132MC/160MA/160S     | 4    | 25303            | 25303        |
| 83,9        | 1087       | 1,9 | 34,68 | B123            | 132MB <sup>(1)</sup> | 2    | 25893            | 7398         |
| 83,4        | 1134       | 1,2 | 17,27 | B103            | 132MC/160MA/160S     | 4    | 18553            | 5301         |
| 81,7        | 1168       | 2,8 | 11,87 | B143            | 160L                 | 6    | 25464            | 25464        |
| 79,4        | 1150       | 3,1 | 36,67 | B143            | 132MB <sup>(1)</sup> | 2    | 25810            | 25810        |
| 77,7        | 1229       | 1,7 | 12,48 | B123            | 160L                 | 6    | 26034            | 7438         |
| 77,5        | 1220       | 1,8 | 18,58 | B123            | 132MC/160MA/160S     | 4    | 26102            | 7458         |
| 77,2        | 1225       | 2,9 | 18,66 | B143            | 132MC/160MA/160S     | 4    | 25841            | 25841        |
| 76,7        | 1245       | 3,8 | 12,64 | B153            | 160L                 | 6    | 45297            | 45297        |
| 75,6        | 1251       | 1,1 | 19,06 | B103            | 132MC/160MA/160S     | 4    | 18936            | 5410         |
| 72,2        | 1263       | 2,8 | 40,29 | B143            | 132MB <sup>(1)</sup> | 2    | 26378            | 26378        |
| 71,8        | 1271       | 1,7 | 40,53 | B123            | 132MB <sup>(1)</sup> | 2    | 26680            | 7623         |
| 70,1        | 1363       | 1,6 | 13,84 | B123            | 160L                 | 6    | 26520            | 7577         |
| 69,9        | 1353       | 1,8 | 20,61 | B123            | 132MC/160MA/160S     | 4    | 26594            | 7598         |
| 69,2        | 1379       | 3,8 | 14,01 | B153            | 160L                 | 6    | 46724            | 46724        |
| 68,6        | 1379       | 2,9 | 21,00 | B143            | 132MC/160MA/160S     | 4    | 26533            | 26533        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 11,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 67,0        | 1426       | 2,3 | 14,49 | B143            | 160L                 | 6    | 26627            | 26627        |
| 65,9        | 1385       | 2,6 | 44,16 | B143            | 132MB <sup>(1)</sup> | 2    | 26925            | 26925        |
| 64,8        | 1407       | 1,6 | 44,89 | B123            | 132MB <sup>(1)</sup> | 2    | 27167            | 7762         |
| 63,2        | 1496       | 1,9 | 22,78 | B123            | 132MC/160MA/160S     | 4    | 27042            | 7726         |
| 63,2        | 1495       | 2,9 | 22,77 | B143            | 132MC/160MA/160S     | 4    | 27002            | 27002        |
| 63,1        | 1514       | 1,5 | 15,38 | B123            | 160L                 | 6    | 26984            | 7710         |
| 63,0        | 1516       | 3,5 | 15,40 | B153            | 160L                 | 6    | 48069            | 48069        |
| 62,2        | 1519       | 0,9 | 23,70 | B103            | 160MA                | 4    | 19656            | 5616         |
| 60,2        | 1516       | 2,5 | 48,35 | B143            | 132MB <sup>(1)</sup> | 2    | 27458            | 27458        |
| 58,4        | 1561       | 1,5 | 49,80 | B123            | 132MB <sup>(1)</sup> | 2    | 27632            | 7895         |
| 57,6        | 1585       | 3,8 | 50,56 | B153            | 132MB <sup>(1)</sup> | 2    | 49487            | 49487        |
| 56,9        | 1678       | 2,0 | 17,04 | B143            | 160L                 | 6    | 27541            | 27541        |
| 56,2        | 1683       | 2,7 | 25,63 | B143            | 132MC/160MA/160S     | 4    | 27666            | 27666        |
| 55,6        | 1700       | 1,6 | 25,89 | B123            | 132MC/160MA/160S     | 4    | 27566            | 7876         |
| 54,7        | 1667       | 2,3 | 53,16 | B143            | 132MB <sup>(1)</sup> | 2    | 28003            | 28003        |
| 53,6        | 1702       | 1,4 | 54,30 | B123            | 132MB <sup>(1)</sup> | 2    | 27991            | 7997         |
| 53,3        | 1713       | 2,2 | 54,63 | B143            | 132MB <sup>(1)</sup> | 2    | 28157            | 28157        |
| 53,3        | 1713       | 3,5 | 54,64 | B153            | 132MB <sup>(1)</sup> | 2    | 50643            | 50643        |
| 52,5        | 1802       | 2,6 | 27,44 | B143            | 132MC/160MA/160S     | 4    | 28041            | 28041        |
| 52,3        | 1806       | 1,6 | 27,51 | B123            | 132MC/160MA/160S     | 4    | 27793            | 7941         |
| 52,3        | 1827       | 3,4 | 18,56 | B153            | 160L                 | 6    | 50804            | 50804        |
| 52,2        | 1829       | 1,3 | 18,58 | B123            | 160L                 | 6    | 27719            | 7920         |
| 52,0        | 1837       | 2,1 | 18,66 | B143            | 160L                 | 6    | 28032            | 28032        |
| 50,8        | 1796       | 3,3 | 57,27 | B153            | 132MB <sup>(1)</sup> | 2    | 51354            | 51354        |
| 49,3        | 1850       | 2,0 | 59,02 | B143            | 132MB <sup>(1)</sup> | 2    | 28587            | 28587        |
| 49,0        | 1861       | 1,3 | 59,36 | B123            | 132MB <sup>(1)</sup> | 2    | 28330            | 8094         |
| 47,9        | 1973       | 2,4 | 30,05 | B143            | 132MC/160MA/160S     | 4    | 28521            | 28521        |
| 47,8        | 1910       | 3,1 | 60,92 | B153            | 132MB <sup>(1)</sup> | 2    | 52298            | 52298        |
| 47,2        | 2024       | 3,4 | 20,56 | B153            | 160L                 | 6    | 52359            | 52359        |
| 47,1        | 2029       | 1,3 | 20,61 | B123            | 160L                 | 6    | 28058            | 8017         |
| 46,8        | 2022       | 1,4 | 30,79 | B123            | 132MC/160MA/160S     | 4    | 28171            | 8049         |
| 46,5        | 1962       | 1,3 | 62,59 | B123            | 132MB <sup>(1)</sup> | 2    | 28515            | 8147         |
| 46,2        | 2067       | 2,0 | 21,00 | B143            | 160L                 | 6    | 28645            | 28645        |
| 46,1        | 2053       | 1,4 | 31,26 | B123            | 132MC/160MA/160S     | 4    | 28217            | 8062         |
| 45,8        | 1990       | 3,0 | 63,47 | B153            | 132MB <sup>(1)</sup> | 2    | 52931            | 52931        |
| 44,9        | 2034       | 1,8 | 64,88 | B143            | 132MB <sup>(1)</sup> | 2    | 29095            | 29095        |
| 43,6        | 2167       | 2,2 | 33,01 | B143            | 132MC/160MA/160S     | 4    | 28998            | 28998        |
| 42,8        | 2208       | 3,6 | 33,63 | B153            | 132MC/160MA/160S     | 4    | 53886            | 53886        |
| 42,6        | 2243       | 1,3 | 22,78 | B123            | 160L                 | 6    | 28332            | 8095         |
| 42,6        | 2242       | 2,1 | 22,77 | B143            | 160L                 | 6    | 29044            | 29044        |
| 41,9        | 2177       | 1,1 | 69,43 | B123            | 132MB <sup>(1)</sup> | 2    | 28837            | 8239         |
| 41,5        | 2277       | 1,2 | 34,68 | B123            | 132MC/160MA/160S     | 4    | 28497            | 8142         |

<sup>(1)</sup> Available only with brake motor (TBS)

## 11,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor                |      | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|----------------------|------|------------------|--------------|
|             |            |     |        |                 | Size                 | Pole |                  |              |
| 41,3        | 2208       | 1,7 | 70,43  | B143            | 132MB <sup>(1)</sup> | 2    | 29518            | 29518        |
| 41,1        | 2299       | 3,5 | 35,02  | B153            | 160MA/160S           | 4    | 54519            | 54519        |
| 40,9        | 2231       | 2,7 | 71,15  | B153            | 132MB <sup>(1)</sup> | 2    | 54722            | 54722        |
| 40,7        | 2349       | 3,0 | 23,86  | B153            | 160L                 | 6    | 54664            | 54664        |
| 39,3        | 2408       | 2,0 | 36,67  | B143            | 132MC/160MA/160S     | 4    | 29500            | 29500        |
| 39,1        | 2333       | 1,1 | 74,42  | B123            | 132MB <sup>(1)</sup> | 2    | 29018            | 8291         |
| 38,5        | 2480       | 2,9 | 25,19  | B153            | 160L                 | 6    | 55521            | 55521        |
| 37,8        | 2523       | 1,9 | 25,63  | B143            | 160L                 | 6    | 29586            | 29586        |
| 37,7        | 2418       | 1,6 | 77,12  | B143            | 132MB <sup>(1)</sup> | 2    | 29959            | 29959        |
| 37,7        | 2421       | 2,5 | 77,22  | B153            | 132MB <sup>(1)</sup> | 2    | 56032            | 56032        |
| 37,5        | 2549       | 1,2 | 25,89  | B123            | 160L                 | 6    | 28592            | 8169         |
| 37,1        | 2548       | 3,1 | 38,81  | B153            | 160MA/160S           | 4    | 56150            | 56150        |
| 36,4        | 2509       | 1,0 | 80,04  | B123            | 132MB <sup>(1)</sup> | 2    | 29174            | 8335         |
| 35,7        | 2645       | 1,8 | 40,29  | B143            | 132MC/160MA/160S     | 4    | 29915            | 29915        |
| 35,5        | 2661       | 1,1 | 40,53  | B123            | 132MC/160MA/160S     | 4    | 28788            | 8225         |
| 35,3        | 2708       | 1,1 | 27,51  | B123            | 160L                 | 6    | 28674            | 8193         |
| 35,3        | 2702       | 1,8 | 27,44  | B143            | 160L                 | 6    | 29876            | 29876        |
| 34,7        | 2630       | 2,3 | 83,89  | B153            | 132MB <sup>(1)</sup> | 2    | 57376            | 57376        |
| 34,4        | 2779       | 3,0 | 28,23  | B153            | 160L                 | 6    | 57351            | 57351        |
| 34,0        | 2682       | 1,4 | 85,54  | B143            | 132MB <sup>(1)</sup> | 2    | 30428            | 30428        |
| 34,0        | 2777       | 2,9 | 42,30  | B153            | 132MC/160MA/160S     | 4    | 57540            | 57540        |
| 33,7        | 2835       | 3,8 | 28,80  | B163            | 160L                 | 6    | 80000            | 65000        |
| 33,2        | 2748       | 2,2 | 87,65  | B153            | 132MB <sup>(1)</sup> | 2    | 58096            | 58096        |
| 32,6        | 2899       | 1,7 | 44,16  | B143            | 132MC/160MA/160S     | 4    | 30283            | 30283        |
| 32,3        | 2958       | 1,7 | 30,05  | B143            | 160L                 | 6    | 30227            | 30227        |
| 32,1        | 2947       | 1,0 | 44,89  | B123            | 132MC/160MA/160S     | 4    | 28879            | 8251         |
| 32,0        | 2988       | 2,8 | 30,35  | B153            | 160L                 | 6    | 58529            | 58529        |
| 31,5        | 3031       | 1,0 | 30,79  | B123            | 160L                 | 6    | 28747            | 8214         |
| 31,4        | 3044       | 4,0 | 30,92  | B163            | 160L                 | 6    | 80000            | 65000        |
| 31,3        | 2917       | 2,1 | 93,05  | B153            | 132MB <sup>(1)</sup> | 2    | 59085            | 59085        |
| 31,0        | 3078       | 1,0 | 31,26  | B123            | 160L                 | 6    | 28749            | 8214         |
| 30,9        | 2951       | 1,3 | 94,13  | B143            | 132MB <sup>(1)</sup> | 2    | 30819            | 30819        |
| 30,3        | 3121       | 2,6 | 47,53  | B153            | 132MC/160MA/160S     | 4    | 59455            | 59455        |
| 29,8        | 3175       | 1,6 | 48,35  | B143            | 132MC/160MA/160S     | 4    | 30605            | 30605        |
| 29,4        | 3250       | 1,5 | 33,01  | B143            | 160L                 | 6    | 30547            | 30547        |
| 28,9        | 3270       | 1,0 | 49,80  | B123            | 132MC/160MA/160S     | 4    | 28875            | 8250         |
| 28,8        | 3311       | 2,5 | 33,63  | B153            | 160L                 | 6    | 60224            | 60224        |
| 28,5        | 3320       | 2,4 | 50,56  | B153            | 132MC/160MA/160S     | 4    | 60483            | 60483        |
| 28,3        | 3372       | 3,7 | 34,25  | B163            | 160L                 | 6    | 80000            | 65000        |
| 28,2        | 3233       | 1,9 | 103,12 | B153            | 132MB <sup>(1)</sup> | 2    | 60807            | 60807        |
| 28,2        | 3348       | 3,9 | 51,00  | B163            | 160MA/160S           | 4    | 80000            | 65000        |
| 27,7        | 3447       | 2,4 | 35,02  | B153            | 160L                 | 6    | 60897            | 60897        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 11,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|----------------------|------|------------------|--------------|
| 27,5        | 3318       | 1,1 | 105,83 | B143            | 132MB <sup>(1)</sup> | 2    | 31235            | 31235        |
| 27,2        | 3480       | 0,9 | 54,30  | B123            | 160MA                | 4    | 28821            | 8235         |
| 27,1        | 3490       | 1,4 | 53,16  | B143            | 132MC/160MA/160S     | 4    | 30893            | 30893        |
| 26,9        | 3521       | 3,7 | 53,63  | B163            | 160MA/160S           | 4    | 80000            | 65000        |
| 26,5        | 3610       | 1,4 | 36,67  | B143            | 160L                 | 6    | 30842            | 30842        |
| 26,4        | 3587       | 1,4 | 54,63  | B143            | 132MC/160MA/160S     | 4    | 30965            | 30965        |
| 26,4        | 3587       | 2,2 | 54,64  | B153            | 132MC/160MA/160S     | 4    | 61784            | 61784        |
| 26,0        | 3510       | 1,1 | 111,94 | B143            | 132MB <sup>(1)</sup> | 2    | 31406            | 31406        |
| 25,8        | 3708       | 3,5 | 37,66  | B163            | 160L                 | 6    | 80000            | 65000        |
| 25,1        | 3760       | 2,1 | 57,27  | B153            | 132MC/160MA/160S     | 4    | 62580            | 62580        |
| 25,0        | 3820       | 2,2 | 38,81  | B153            | 160L                 | 6    | 62624            | 62624        |
| 24,4        | 3875       | 1,3 | 59,02  | B143            | 132MC/160MA/160S     | 4    | 31141            | 31141        |
| 24,4        | 3871       | 3,4 | 58,97  | B163            | 160MA/160S           | 4    | 80000            | 65000        |
| 24,1        | 3966       | 1,3 | 40,29  | B143            | 160L                 | 6    | 31042            | 31042        |
| 23,9        | 4002       | 3,3 | 40,65  | B163            | 160L                 | 6    | 80000            | 65000        |
| 23,6        | 4000       | 2,0 | 60,92  | B153            | 132MC/160MA/160S     | 4    | 63631            | 63631        |
| 23,5        | 3884       | 1,5 | 123,88 | B153            | 132MB <sup>(1)</sup> | 2    | 63943            | 63943        |
| 22,9        | 4164       | 2,0 | 42,30  | B153            | 160L                 | 6    | 64086            | 64086        |
| 22,7        | 4167       | 1,9 | 63,47  | B153            | 132MC/160MA/160S     | 4    | 64332            | 64332        |
| 22,2        | 4260       | 1,2 | 64,88  | B143            | 132MC/160MA/160S     | 4    | 31294            | 31294        |
| 22,0        | 4347       | 1,2 | 44,16  | B143            | 160L                 | 6    | 31169            | 31169        |
| 21,7        | 4210       | 1,4 | 134,27 | B153            | 132MB <sup>(1)</sup> | 2    | 65000            | 65000        |
| 21,5        | 4439       | 2,8 | 45,09  | B163            | 160L                 | 6    | 80000            | 65000        |
| 20,6        | 4581       | 2,8 | 69,78  | B163            | 160MA/160S           | 4    | 80000            | 65000        |
| 20,4        | 4624       | 1,1 | 70,43  | B143            | 132MC/160MA/160S     | 4    | 31364            | 31364        |
| 20,4        | 4679       | 1,8 | 47,53  | B153            | 160L                 | 6    | 65000            | 65000        |
| 20,2        | 4671       | 1,7 | 71,15  | B153            | 132MC/160MA/160S     | 4    | 65000            | 65000        |
| 20,1        | 4760       | 1,1 | 48,35  | B143            | 160L                 | 6    | 31221            | 31221        |
| 19,5        | 4680       | 1,3 | 149,26 | B153            | 132MB <sup>(1)</sup> | 2    | 65000            | 65000        |
| 19,2        | 4978       | 1,7 | 50,56  | B153            | 160L                 | 6    | 65000            | 65000        |
| 19,0        | 5021       | 2,7 | 51,00  | B163            | 160L                 | 6    | 80000            | 65000        |
| 18,8        | 5037       | 2,6 | 76,72  | B163            | 160MA/160S           | 4    | 80000            | 65000        |
| 18,7        | 5063       | 1,0 | 77,12  | B143            | 132MC/160MA/160S     | 4    | 31365            | 31365        |
| 18,6        | 5070       | 1,6 | 77,22  | B153            | 132MC/160MA/160S     | 4    | 65000            | 65000        |
| 18,2        | 5233       | 1,0 | 53,16  | B143            | 160L                 | 6    | 31186            | 31186        |
| 18,1        | 5279       | 2,6 | 53,63  | B163            | 160L                 | 6    | 80000            | 65000        |
| 17,8        | 5378       | 1,0 | 54,63  | B143            | 160L                 | 6    | 31157            | 31157        |
| 17,8        | 5379       | 1,6 | 54,64  | B153            | 160L                 | 6    | 65000            | 65000        |
| 17,6        | 5186       | 1,2 | 165,42 | B153            | 132MB <sup>(1)</sup> | 2    | 65000            | 65000        |
| 17,2        | 5483       | 0,9 | 85,54  | B143            | 160MA                | 4    | 31291            | 31291        |
| 17,2        | 5508       | 1,5 | 83,89  | B153            | 132MC/160MA/160S     | 4    | 65000            | 65000        |
| 16,9        | 5638       | 1,5 | 57,27  | B153            | 160L                 | 6    | 65000            | 65000        |

<sup>(1)</sup> Available only with brake motor (TBS)

## 11,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size    | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|------------------|------|------------------|--------------|
| 16,5        | 5805       | 2,4 | 58,97  | B163            | 160L             | 6    | 80000            | 65000        |
| 16,5        | 5747       | 2,3 | 87,54  | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 16,4        | 5810       | 0,9 | 59,02  | B143            | 160L             | 6    | 31026            | 31026        |
| 16,4        | 5755       | 1,4 | 87,65  | B153            | 132MC/160MA/160S | 4    | 65000            | 65000        |
| 15,9        | 5997       | 1,4 | 60,92  | B153            | 160L             | 6    | 65000            | 65000        |
| 15,5        | 6109       | 1,3 | 93,05  | B153            | 132MC/160MA/160S | 4    | 65000            | 65000        |
| 15,3        | 6248       | 1,3 | 63,47  | B153            | 160L             | 6    | 65000            | 65000        |
| 15,0        | 6319       | 2,1 | 96,25  | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 14,0        | 6770       | 1,2 | 103,12 | B153            | 132MC/160MA/160S | 4    | 65000            | 65000        |
| 13,9        | 6869       | 2,0 | 69,78  | B163            | 160L             | 6    | 80000            | 65000        |
| 13,9        | 6824       | 1,9 | 103,93 | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 13,6        | 7004       | 1,2 | 71,15  | B153            | 160L             | 6    | 65000            | 65000        |
| 12,6        | 7602       | 1,1 | 77,22  | B153            | 160L             | 6    | 65000            | 65000        |
| 12,6        | 7552       | 1,8 | 76,72  | B163            | 160L             | 6    | 80000            | 65000        |
| 12,6        | 7503       | 1,7 | 114,27 | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 11,6        | 8133       | 1,0 | 123,88 | B153            | 132MC/160MA/160S | 4    | 65000            | 65000        |
| 11,6        | 8258       | 1,0 | 83,89  | B153            | 160L             | 6    | 65000            | 65000        |
| 11,4        | 8292       | 1,6 | 126,29 | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 11,1        | 8629       | 1,0 | 87,65  | B153            | 160L             | 6    | 65000            | 65000        |
| 11,1        | 8617       | 1,6 | 87,54  | B163            | 160L             | 6    | 80000            | 65000        |
| 10,7        | 8815       | 0,9 | 134,27 | B153            | 132MC/160MA/160S | 4    | 65000            | 65000        |
| 10,4        | 9160       | 0,9 | 93,05  | B153            | 160L             | 6    | 65000            | 65000        |
| 10,4        | 9117       | 1,4 | 138,85 | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 10,1        | 9475       | 1,4 | 96,25  | B163            | 160L             | 6    | 80000            | 65000        |
| 9,3         | 10231      | 1,3 | 103,93 | B163            | 160L             | 6    | 80000            | 65000        |
| 9,3         | 10166      | 1,3 | 154,83 | B163            | 160MA/160S       | 4    | 80000            | 65000        |
| 8,5         | 11249      | 1,2 | 114,27 | B163            | 160L             | 6    | 80000            | 65000        |
| 7,7         | 12432      | 1,1 | 126,29 | B163            | 160L             | 6    | 80000            | 65000        |
| 7,0         | 13669      | 1,0 | 138,85 | B163            | 160L             | 6    | 80000            | 65000        |

## 15,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|------|------------------|--------------|
| 185,2       | 696        | 2,2 | 7,97  | B123            | 160LA               | 4    | 20589            | 5883         |
| 181,5       | 710        | 1,1 | 8,13  | B103            | 160LA               | 4    | 14833            | 4238         |
| 164,5       | 784        | 1,1 | 8,97  | B103            | 160LA               | 4    | 15179            | 4337         |
| 153,3       | 841        | 2,1 | 9,62  | B123            | 160LA               | 4    | 21453            | 6129         |
| 142,7       | 903        | 2,2 | 10,33 | B123            | 160LA               | 4    | 21771            | 6220         |
| 136,1       | 947        | 3,2 | 10,84 | B143            | 160LA               | 4    | 21649            | 21649        |
| 135,1       | 955        | 1,0 | 10,92 | B103            | 160LA               | 4    | 15859            | 4531         |
| 124,3       | 1037       | 3,0 | 11,87 | B143            | 160LA               | 4    | 22112            | 22112        |
| 123,0       | 1058       | 1,5 | 7,97  | B123            | 180L <sup>(2)</sup> | 6    | 22361            | 6389         |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## 15,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|------|------------------|--------------|
| 122,4       | 1053       | 0,9 | 12,05 | B103            | 160LA               | 4    | 16189            | 4626         |
| 118,2       | 1091       | 1,8 | 12,48 | B123            | 160LA               | 4    | 22574            | 6450         |
| 106,5       | 1210       | 1,7 | 13,84 | B123            | 160LA               | 4    | 22988            | 6568         |
| 101,9       | 1278       | 1,5 | 9,62  | B123            | 180L <sup>(2)</sup> | 6    | 23100            | 6600         |
| 101,8       | 1266       | 2,4 | 14,49 | B143            | 160LA               | 4    | 23110            | 23110        |
| 98,4        | 1310       | 0,9 | 14,99 | B103            | 160LA               | 4    | 16885            | 4824         |
| 95,9        | 1345       | 1,6 | 15,38 | B123            | 160LA               | 4    | 23379            | 6680         |
| 95,8        | 1346       | 3,7 | 15,40 | B153            | 160LA               | 4    | 41822            | 41822        |
| 94,8        | 1373       | 1,5 | 10,33 | B123            | 180L <sup>(2)</sup> | 6    | 23356            | 6673         |
| 93,4        | 1394       | 3,4 | 10,49 | B153            | 180L <sup>(2)</sup> | 6    | 42116            | 42116        |
| 90,4        | 1440       | 2,2 | 10,84 | B143            | 180L <sup>(2)</sup> | 6    | 23641            | 23641        |
| 86,6        | 1489       | 2,1 | 17,04 | B143            | 160LA               | 4    | 23893            | 23893        |
| 85,4        | 1510       | 0,9 | 17,27 | B103            | 160LA               | 4    | 17301            | 4943         |
| 82,6        | 1577       | 2,1 | 11,87 | B143            | 180L <sup>(2)</sup> | 6    | 24062            | 24062        |
| 79,5        | 1622       | 3,7 | 18,56 | B153            | 160LA               | 4    | 44196            | 44196        |
| 79,4        | 1624       | 1,4 | 18,58 | B123            | 160LA               | 4    | 23995            | 6856         |
| 79,1        | 1631       | 2,2 | 18,66 | B143            | 160LA               | 4    | 24312            | 24312        |
| 78,5        | 1658       | 1,3 | 12,48 | B123            | 180L <sup>(2)</sup> | 6    | 23952            | 6843         |
| 77,5        | 1680       | 2,8 | 12,64 | B153            | 180L <sup>(2)</sup> | 6    | 44499            | 44499        |
| 71,7        | 1797       | 3,6 | 20,56 | B153            | 160LA               | 4    | 45545            | 45545        |
| 71,6        | 1801       | 1,4 | 20,61 | B123            | 160LA               | 4    | 24275            | 6936         |
| 70,8        | 1840       | 1,2 | 13,84 | B123            | 180L <sup>(2)</sup> | 6    | 24218            | 6920         |
| 70,2        | 1835       | 2,2 | 21,00 | B143            | 160LA               | 4    | 24832            | 24832        |
| 69,9        | 1862       | 2,8 | 14,01 | B153            | 180L <sup>(2)</sup> | 6    | 45852            | 45852        |
| 67,7        | 1925       | 1,7 | 14,49 | B143            | 180L <sup>(2)</sup> | 6    | 24931            | 24931        |
| 64,8        | 1990       | 2,2 | 22,77 | B143            | 160LA               | 4    | 25171            | 25171        |
| 64,7        | 1991       | 1,4 | 22,78 | B123            | 160LA               | 4    | 24497            | 6999         |
| 63,7        | 2044       | 1,1 | 15,38 | B123            | 180L <sup>(2)</sup> | 6    | 24435            | 6981         |
| 63,6        | 2046       | 2,6 | 15,40 | B153            | 180L <sup>(2)</sup> | 6    | 47121            | 47121        |
| 61,8        | 2085       | 3,2 | 23,86 | B153            | 160LA               | 4    | 47544            | 47544        |
| 58,6        | 2202       | 3,1 | 25,19 | B153            | 160LA               | 4    | 48287            | 48287        |
| 57,6        | 2240       | 2,1 | 25,63 | B143            | 160LA               | 4    | 25627            | 25627        |
| 57,5        | 2264       | 1,5 | 17,04 | B143            | 180L <sup>(2)</sup> | 6    | 25559            | 25559        |
| 57,0        | 2263       | 1,2 | 25,89 | B123            | 160LA               | 4    | 24699            | 7057         |
| 53,7        | 2399       | 1,9 | 27,44 | B143            | 160LA               | 4    | 25870            | 25870        |
| 53,6        | 2405       | 1,2 | 27,51 | B123            | 160LA               | 4    | 24758            | 7074         |
| 52,8        | 2468       | 0,9 | 18,58 | B123            | 180L <sup>(2)</sup> | 6    | 24657            | 7045         |
| 52,8        | 2465       | 2,6 | 18,56 | B153            | 180L <sup>(2)</sup> | 6    | 49686            | 49686        |
| 52,5        | 2479       | 1,5 | 18,66 | B143            | 180L <sup>(2)</sup> | 6    | 25869            | 25869        |
| 52,2        | 2468       | 3,2 | 28,23 | B153            | 160LA               | 4    | 49873            | 49873        |
| 49,1        | 2626       | 1,8 | 30,05 | B143            | 160LA               | 4    | 26162            | 26162        |
| 48,6        | 2653       | 3,0 | 30,35 | B153            | 160LA               | 4    | 50894            | 50894        |

(2) With TBS brake motor, please contact our Technical Sales Support

## 15,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|------|------------------|--------------|
| 47,9        | 2692       | 1,0 | 30,79 | B123            | 160LA               | 4    | 24796            | 7085         |
| 47,7        | 2732       | 2,5 | 20,56 | B153            | 180L <sup>(2)</sup> | 6    | 51133            | 51133        |
| 47,6        | 2738       | 1,0 | 20,61 | B123            | 180L <sup>(2)</sup> | 6    | 24671            | 7049         |
| 47,2        | 2733       | 1,0 | 31,26 | B123            | 160LA               | 4    | 24794            | 7084         |
| 46,7        | 2790       | 1,5 | 21,00 | B143            | 180L <sup>(2)</sup> | 6    | 26220            | 26220        |
| 44,7        | 2885       | 1,6 | 33,01 | B143            | 160LA               | 4    | 26424            | 26424        |
| 44,7        | 2916       | 3,7 | 21,94 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 43,9        | 2940       | 2,7 | 33,63 | B153            | 160LA               | 4    | 52362            | 52362        |
| 43,1        | 2994       | 4,0 | 34,25 | B163            | 160LA               | 4    | 80000            | 65000        |
| 43,0        | 3027       | 1,0 | 22,78 | B123            | 180L <sup>(2)</sup> | 6    | 24597            | 7028         |
| 43,0        | 3026       | 1,5 | 22,77 | B143            | 180L <sup>(2)</sup> | 6    | 26421            | 26421        |
| 42,5        | 3032       | 0,9 | 34,68 | B123            | 160LA               | 4    | 24722            | 7063         |
| 42,1        | 3061       | 2,6 | 35,02 | B153            | 160LA               | 4    | 52944            | 52944        |
| 41,1        | 3170       | 2,2 | 23,86 | B153            | 180L <sup>(2)</sup> | 6    | 53262            | 53262        |
| 40,5        | 3212       | 3,4 | 24,17 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 40,2        | 3205       | 1,5 | 36,67 | B143            | 160LA               | 4    | 26662            | 26662        |
| 39,2        | 3292       | 3,7 | 37,66 | B163            | 160LA               | 4    | 80000            | 65000        |
| 38,9        | 3347       | 2,1 | 25,19 | B153            | 180L <sup>(2)</sup> | 6    | 54049            | 54049        |
| 38,2        | 3405       | 1,4 | 25,63 | B143            | 180L <sup>(2)</sup> | 6    | 26644            | 26644        |
| 38,0        | 3392       | 2,4 | 38,81 | B153            | 160LA               | 4    | 54439            | 54439        |
| 36,9        | 3531       | 3,3 | 26,58 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 36,6        | 3522       | 1,4 | 40,29 | B143            | 160LA               | 4    | 26816            | 26816        |
| 36,3        | 3553       | 3,6 | 40,65 | B163            | 160LA               | 4    | 80000            | 65000        |
| 35,7        | 3646       | 1,3 | 27,44 | B143            | 180L <sup>(2)</sup> | 6    | 26732            | 26732        |
| 34,9        | 3697       | 2,2 | 42,30 | B153            | 160LA               | 4    | 55704            | 55704        |
| 34,7        | 3751       | 2,2 | 28,23 | B153            | 180L <sup>(2)</sup> | 6    | 55717            | 55717        |
| 34,0        | 3827       | 2,8 | 28,80 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 33,4        | 3860       | 1,2 | 44,16 | B143            | 160LA               | 4    | 26906            | 26906        |
| 32,7        | 3941       | 3,0 | 45,09 | B163            | 160LA               | 4    | 80000            | 65000        |
| 32,6        | 3992       | 1,2 | 30,05 | B143            | 180L <sup>(2)</sup> | 6    | 26793            | 26793        |
| 32,3        | 4032       | 2,1 | 30,35 | B153            | 180L <sup>(2)</sup> | 6    | 56783            | 56783        |
| 31,7        | 4109       | 2,9 | 30,92 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 31,0        | 4155       | 1,9 | 47,53 | B153            | 160LA               | 4    | 57433            | 57433        |
| 30,5        | 4226       | 1,2 | 48,35 | B143            | 160LA               | 4    | 26929            | 26929        |
| 29,7        | 4386       | 1,1 | 33,01 | B143            | 180L <sup>(2)</sup> | 6    | 26783            | 26783        |
| 29,2        | 4419       | 1,8 | 50,56 | B153            | 160LA               | 4    | 58353            | 58353        |
| 29,1        | 4469       | 1,9 | 33,63 | B153            | 180L <sup>(2)</sup> | 6    | 58306            | 58306        |
| 28,9        | 4458       | 2,9 | 51,00 | B163            | 160LA               | 4    | 80000            | 65000        |
| 28,6        | 4551       | 2,7 | 34,25 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 28,0        | 4653       | 1,8 | 35,02 | B153            | 180L <sup>(2)</sup> | 6    | 58905            | 58905        |
| 27,7        | 4646       | 1,1 | 53,16 | B143            | 160LA               | 4    | 26873            | 26873        |
| 27,5        | 4688       | 2,8 | 53,63 | B163            | 160LA               | 4    | 80000            | 65000        |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support



## 15,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i      | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|--------|-----------------|---------------------|------|------------------|--------------|
| 27,0        | 4775       | 1,0 | 54,63  | B143            | 160LA               | 4    | 26840            | 26840        |
| 27,0        | 4776       | 1,7 | 54,64  | B153            | 160LA               | 4    | 59512            | 59512        |
| 26,7        | 4873       | 1,0 | 36,67  | B143            | 180L <sup>(2)</sup> | 6    | 26671            | 26671        |
| 26,0        | 5004       | 2,6 | 37,66  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 25,8        | 5006       | 1,6 | 57,27  | B153            | 160LA               | 4    | 60215            | 60215        |
| 25,3        | 5156       | 1,6 | 38,81  | B153            | 180L <sup>(2)</sup> | 6    | 60434            | 60434        |
| 25,0        | 5158       | 1,0 | 59,02  | B143            | 160LA               | 4    | 26703            | 26703        |
| 25,0        | 5154       | 2,5 | 58,97  | B163            | 160LA               | 4    | 80000            | 65000        |
| 24,3        | 5353       | 0,9 | 40,29  | B143            | 180L <sup>(2)</sup> | 6    | 26469            | 26469        |
| 24,2        | 5325       | 1,5 | 60,92  | B153            | 160LA               | 4    | 61139            | 61139        |
| 24,1        | 5402       | 2,5 | 40,65  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 23,2        | 5620       | 1,5 | 42,30  | B153            | 180L <sup>(2)</sup> | 6    | 61713            | 61713        |
| 23,2        | 5548       | 1,4 | 63,47  | B153            | 160LA               | 4    | 61750            | 61750        |
| 21,7        | 5991       | 2,1 | 45,09  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 21,1        | 6099       | 2,1 | 69,78  | B163            | 160LA               | 4    | 80000            | 65000        |
| 20,7        | 6219       | 1,3 | 71,15  | B153            | 160LA               | 4    | 63449            | 63449        |
| 20,6        | 6316       | 1,3 | 47,53  | B153            | 180L <sup>(2)</sup> | 6    | 63440            | 63440        |
| 19,4        | 6718       | 1,3 | 50,56  | B153            | 180L <sup>(2)</sup> | 6    | 64347            | 64347        |
| 19,2        | 6776       | 2,0 | 51,00  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 19,2        | 6706       | 1,9 | 76,72  | B163            | 160LA               | 4    | 80000            | 65000        |
| 19,1        | 6750       | 1,2 | 77,22  | B153            | 160LA               | 4    | 64660            | 64660        |
| 18,3        | 7126       | 1,9 | 53,63  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 17,9        | 7260       | 1,2 | 54,64  | B153            | 180L <sup>(2)</sup> | 6    | 65000            | 65000        |
| 17,6        | 7332       | 1,1 | 83,89  | B153            | 160LA               | 4    | 65000            | 65000        |
| 17,1        | 7610       | 1,1 | 57,27  | B153            | 180L <sup>(2)</sup> | 6    | 65000            | 65000        |
| 16,9        | 7651       | 1,7 | 87,54  | B163            | 160LA               | 4    | 80000            | 65000        |
| 16,8        | 7661       | 1,0 | 87,65  | B153            | 160LA               | 4    | 65000            | 65000        |
| 16,6        | 7835       | 1,7 | 58,97  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 16,1        | 8095       | 1,0 | 60,92  | B153            | 180L <sup>(2)</sup> | 6    | 65000            | 65000        |
| 15,9        | 8133       | 1,0 | 93,05  | B153            | 160LA               | 4    | 65000            | 65000        |
| 15,4        | 8434       | 1,0 | 63,47  | B153            | 180L <sup>(2)</sup> | 6    | 65000            | 65000        |
| 15,3        | 8413       | 1,5 | 96,25  | B163            | 160LA               | 4    | 80000            | 65000        |
| 14,2        | 9084       | 1,4 | 103,93 | B163            | 160LA               | 4    | 80000            | 65000        |
| 14,0        | 9271       | 1,5 | 69,78  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 12,9        | 9988       | 1,3 | 114,27 | B163            | 160LA               | 4    | 80000            | 65000        |
| 12,8        | 10194      | 1,3 | 76,72  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 11,7        | 11038      | 1,2 | 126,29 | B163            | 160LA               | 4    | 80000            | 65000        |
| 11,2        | 11631      | 1,2 | 87,54  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 10,6        | 12137      | 1,1 | 138,85 | B163            | 160LA               | 4    | 80000            | 65000        |
| 10,2        | 12788      | 1,1 | 96,25  | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |
| 9,5         | 13533      | 1,0 | 154,83 | B163            | 160LA               | 4    | 80000            | 65000        |
| 9,4         | 13809      | 1,0 | 103,93 | B163            | 180L <sup>(2)</sup> | 6    | 80000            | 65000        |

(2) With TBS brake motor, please contact our Technical Sales Support

## 18,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 184,5       | 862        | 1,7 | 7,97  | B123            | 180M <sup>(2)</sup>  | 4    | 19856            | 5673         |
| 152,8       | 1041       | 1,7 | 9,62  | B123            | 180M <sup>(2)</sup>  | 4    | 20563            | 5875         |
| 142,2       | 1118       | 1,8 | 10,33 | B123            | 180M <sup>(2)</sup>  | 4    | 20814            | 5947         |
| 140,1       | 1135       | 4,0 | 10,49 | B153            | 180M <sup>(2)</sup>  | 4    | 36966            | 36966        |
| 135,6       | 1172       | 2,6 | 10,84 | B143            | 180M <sup>(2)</sup>  | 4    | 20959            | 20959        |
| 123,9       | 1284       | 2,4 | 11,87 | B143            | 180M <sup>(2)</sup>  | 4    | 21354            | 21354        |
| 117,8       | 1350       | 1,5 | 12,48 | B123            | 180M <sup>(2)</sup>  | 4    | 21414            | 6118         |
| 116,3       | 1367       | 3,3 | 12,64 | B153            | 180M <sup>(2)</sup>  | 4    | 39075            | 39075        |
| 106,2       | 1498       | 1,4 | 13,84 | B123            | 180M <sup>(2)</sup>  | 4    | 21698            | 6200         |
| 104,9       | 1515       | 3,3 | 14,01 | B153            | 180M <sup>(2)</sup>  | 4    | 40275            | 40275        |
| 101,5       | 1567       | 2,0 | 14,49 | B143            | 180M <sup>(2)</sup>  | 4    | 22181            | 22181        |
| 95,6        | 1664       | 1,3 | 15,38 | B123            | 180M <sup>(2)</sup>  | 4    | 21945            | 6270         |
| 95,5        | 1666       | 3,0 | 15,40 | B153            | 180M <sup>(2)</sup>  | 4    | 41402            | 41402        |
| 93,4        | 1719       | 2,7 | 10,49 | B153            | 200LA <sup>(2)</sup> | 6    | 41639            | 41639        |
| 90,4        | 1776       | 1,8 | 10,84 | B143            | 200LA <sup>(2)</sup> | 6    | 22569            | 22569        |
| 86,3        | 1843       | 1,7 | 17,04 | B143            | 180M <sup>(2)</sup>  | 4    | 22796            | 22796        |
| 82,6        | 1945       | 1,7 | 11,87 | B143            | 200LA <sup>(2)</sup> | 6    | 22889            | 22889        |
| 79,2        | 2007       | 3,0 | 18,56 | B153            | 180M <sup>(2)</sup>  | 4    | 43683            | 43683        |
| 79,1        | 2009       | 1,1 | 18,58 | B123            | 180M <sup>(2)</sup>  | 4    | 22258            | 6359         |
| 78,8        | 2018       | 1,8 | 18,66 | B143            | 180M <sup>(2)</sup>  | 4    | 23109            | 23109        |
| 77,5        | 2072       | 2,3 | 12,64 | B153            | 200LA <sup>(2)</sup> | 6    | 43924            | 43924        |
| 71,5        | 2224       | 2,9 | 20,56 | B153            | 180M <sup>(2)</sup>  | 4    | 44973            | 44973        |
| 71,3        | 2229       | 1,1 | 20,61 | B123            | 180M <sup>(2)</sup>  | 4    | 22345            | 6384         |
| 70,0        | 2271       | 1,8 | 21,00 | B143            | 180M <sup>(2)</sup>  | 4    | 23476            | 23476        |
| 69,9        | 2296       | 2,3 | 14,01 | B153            | 200LA <sup>(2)</sup> | 6    | 45215            | 45215        |
| 67,7        | 2374       | 1,4 | 14,49 | B143            | 200LA <sup>(2)</sup> | 6    | 23498            | 23498        |
| 64,6        | 2463       | 1,8 | 22,77 | B143            | 180M <sup>(2)</sup>  | 4    | 23698            | 23698        |
| 64,5        | 2464       | 1,1 | 22,78 | B123            | 180M <sup>(2)</sup>  | 4    | 22361            | 6389         |
| 63,6        | 2524       | 2,1 | 15,40 | B153            | 200LA <sup>(2)</sup> | 6    | 46421            | 46421        |
| 61,6        | 2581       | 2,6 | 23,86 | B153            | 180M <sup>(2)</sup>  | 4    | 46874            | 46874        |
| 59,8        | 2685       | 3,9 | 16,39 | B163            | 200LA <sup>(2)</sup> | 6    | 75172            | 65000        |
| 58,4        | 2724       | 2,5 | 25,19 | B153            | 180M <sup>(2)</sup>  | 4    | 47578            | 47578        |
| 57,5        | 2793       | 1,2 | 17,04 | B143            | 200LA <sup>(2)</sup> | 6    | 23873            | 23873        |
| 57,4        | 2772       | 1,7 | 25,63 | B143            | 180M <sup>(2)</sup>  | 4    | 23967            | 23967        |
| 56,8        | 2800       | 1,0 | 25,89 | B123            | 180M <sup>(2)</sup>  | 4    | 22268            | 6362         |
| 55,3        | 2875       | 3,9 | 26,58 | B163            | 180M <sup>(2)</sup>  | 4    | 76928            | 65000        |
| 54,4        | 2952       | 3,7 | 18,02 | B163            | 200LA <sup>(2)</sup> | 6    | 77244            | 65000        |
| 53,6        | 2968       | 1,5 | 27,44 | B143            | 180M <sup>(2)</sup>  | 4    | 24090            | 24090        |
| 53,4        | 2976       | 0,9 | 27,51 | B123            | 180M <sup>(2)</sup>  | 4    | 22173            | 6335         |
| 52,8        | 3041       | 2,1 | 18,56 | B153            | 200LA <sup>(2)</sup> | 6    | 48842            | 48842        |
| 52,5        | 3057       | 1,2 | 18,66 | B143            | 200LA <sup>(2)</sup> | 6    | 24024            | 24024        |
| 52,1        | 3054       | 2,6 | 28,23 | B153            | 180M <sup>(2)</sup>  | 4    | 49073            | 49073        |

(2) With TBS brake motor, please contact our Technical Sales Support

## 18,50 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 51,0        | 3115       | 3,3 | 28,80 | B163            | 180M <sup>(2)</sup>  | 4    | 78709            | 65000        |
| 49,1        | 3270       | 3,4 | 19,96 | B163            | 200LA <sup>(2)</sup> | 6    | 79518            | 65000        |
| 48,9        | 3250       | 1,4 | 30,05 | B143            | 180M <sup>(2)</sup>  | 4    | 24210            | 24210        |
| 48,4        | 3283       | 2,4 | 30,35 | B153            | 180M <sup>(2)</sup>  | 4    | 50031            | 50031        |
| 47,7        | 3370       | 2,0 | 20,56 | B153            | 200LA <sup>(2)</sup> | 6    | 50198            | 50198        |
| 47,5        | 3345       | 3,4 | 30,92 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 46,7        | 3441       | 1,2 | 21,00 | B143            | 200LA <sup>(2)</sup> | 6    | 24143            | 24143        |
| 44,7        | 3596       | 3,0 | 21,94 | B163            | 200LA <sup>(2)</sup> | 6    | 80000            | 65000        |
| 44,5        | 3571       | 1,3 | 33,01 | B143            | 180M <sup>(2)</sup>  | 4    | 24278            | 24278        |
| 43,7        | 3638       | 2,2 | 33,63 | B153            | 180M <sup>(2)</sup>  | 4    | 51401            | 51401        |
| 43,0        | 3732       | 1,2 | 22,77 | B143            | 200LA <sup>(2)</sup> | 6    | 24169            | 24169        |
| 42,9        | 3705       | 3,2 | 34,25 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 42,0        | 3788       | 2,1 | 35,02 | B153            | 180M <sup>(2)</sup>  | 4    | 51942            | 51942        |
| 41,1        | 3910       | 1,8 | 23,86 | B153            | 200LA <sup>(2)</sup> | 6    | 52177            | 52177        |
| 40,5        | 3961       | 2,8 | 24,17 | B163            | 200LA <sup>(2)</sup> | 6    | 80000            | 65000        |
| 40,1        | 3967       | 1,2 | 36,67 | B143            | 180M <sup>(2)</sup>  | 4    | 24274            | 24274        |
| 39,0        | 4074       | 3,0 | 37,66 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 38,9        | 4128       | 1,7 | 25,19 | B153            | 200LA <sup>(2)</sup> | 6    | 52903            | 52903        |
| 38,2        | 4200       | 1,2 | 25,63 | B143            | 200LA <sup>(2)</sup> | 6    | 24110            | 24110        |
| 37,9        | 4198       | 1,9 | 38,81 | B153            | 180M <sup>(2)</sup>  | 4    | 53324            | 53324        |
| 36,9        | 4355       | 2,7 | 26,58 | B163            | 200LA <sup>(2)</sup> | 6    | 80000            | 65000        |
| 36,5        | 4358       | 1,1 | 40,29 | B143            | 180M <sup>(2)</sup>  | 4    | 24190            | 24190        |
| 36,2        | 4397       | 2,9 | 40,65 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 35,7        | 4497       | 1,1 | 27,44 | B143            | 200LA <sup>(2)</sup> | 6    | 24018            | 24018        |
| 34,8        | 4575       | 1,7 | 42,30 | B153            | 180M <sup>(2)</sup>  | 4    | 54484            | 54484        |
| 34,7        | 4626       | 1,8 | 28,23 | B153            | 200LA <sup>(2)</sup> | 6    | 54433            | 54433        |
| 34,0        | 4720       | 2,3 | 28,80 | B163            | 200LA <sup>(2)</sup> | 6    | 80000            | 65000        |
| 33,3        | 4777       | 1,0 | 44,16 | B143            | 180M <sup>(2)</sup>  | 4    | 24025            | 24025        |
| 32,6        | 4924       | 1,0 | 30,05 | B143            | 200LA <sup>(2)</sup> | 6    | 23821            | 23821        |
| 32,6        | 4877       | 2,5 | 45,09 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 32,3        | 4973       | 1,7 | 30,35 | B153            | 200LA <sup>(2)</sup> | 6    | 55403            | 55403        |
| 31,7        | 5068       | 2,4 | 30,92 | B163            | 200LA <sup>(2)</sup> | 6    | 80000            | 65000        |
| 30,9        | 5142       | 1,6 | 47,53 | B153            | 180M <sup>(2)</sup>  | 4    | 56057            | 56057        |
| 30,4        | 5230       | 1,0 | 48,35 | B143            | 180M <sup>(2)</sup>  | 4    | 23772            | 23772        |
| 29,7        | 5409       | 0,9 | 33,01 | B143            | 200LA <sup>(2)</sup> | 6    | 23518            | 23518        |
| 29,1        | 5512       | 1,5 | 33,63 | B153            | 200LA <sup>(2)</sup> | 6    | 56776            | 56776        |
| 29,1        | 5469       | 1,5 | 50,56 | B153            | 180M <sup>(2)</sup>  | 4    | 56886            | 56886        |
| 28,8        | 5517       | 2,4 | 51,00 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 28,6        | 5613       | 2,2 | 34,25 | B163            | 200LA <sup>(2)</sup> | 6    | 80000            | 65000        |
| 28,0        | 5738       | 1,5 | 35,02 | B153            | 200LA <sup>(2)</sup> | 6    | 57313            | 57313        |
| 27,4        | 5801       | 2,2 | 53,63 | B163            | 180M <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 26,9        | 5910       | 1,4 | 54,64 | B153            | 180M <sup>(2)</sup>  | 4    | 57922            | 57922        |

(2) With TBS brake motor, please contact our Technical Sales Support

## 18,50 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size           | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|----------------------|------------|---------------|-----------|
| 26,0     | 6172    | 2,1 | 37,66  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 25,7     | 6195    | 1,3 | 57,27  | B153         | 180M <sup>(2)</sup>  | 4          | 58546         | 58546     |
| 25,3     | 6360    | 1,3 | 38,81  | B153         | 200LA <sup>(2)</sup> | 6          | 58669         | 58669     |
| 24,9     | 6378    | 2,0 | 58,97  | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 24,1     | 6590    | 1,2 | 60,92  | B153         | 180M <sup>(2)</sup>  | 4          | 59360         | 59360     |
| 24,1     | 6662    | 2,0 | 40,65  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 23,2     | 6931    | 1,2 | 42,30  | B153         | 200LA <sup>(2)</sup> | 6          | 59789         | 59789     |
| 23,2     | 6866    | 1,2 | 63,47  | B153         | 180M <sup>(2)</sup>  | 4          | 59896         | 59896     |
| 21,7     | 7389    | 1,7 | 45,09  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 21,1     | 7547    | 1,7 | 69,78  | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 20,7     | 7696    | 1,0 | 71,15  | B153         | 180M <sup>(2)</sup>  | 4          | 61364         | 61364     |
| 20,6     | 7789    | 1,1 | 47,53  | B153         | 200LA <sup>(2)</sup> | 6          | 61278         | 61278     |
| 19,4     | 8286    | 1,0 | 50,56  | B153         | 200LA <sup>(2)</sup> | 6          | 62047         | 62047     |
| 19,2     | 8358    | 1,6 | 51,00  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 19,2     | 8298    | 1,6 | 76,72  | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 19,0     | 8353    | 1,0 | 77,22  | B153         | 180M <sup>(2)</sup>  | 4          | 62391         | 62391     |
| 18,3     | 8788    | 1,6 | 53,63  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 17,9     | 8954    | 0,9 | 54,64  | B153         | 200LA <sup>(2)</sup> | 6          | 62991         | 62991     |
| 16,8     | 9469    | 1,4 | 87,54  | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 16,6     | 9663    | 1,4 | 58,97  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 15,3     | 10411   | 1,2 | 96,25  | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 14,1     | 11242   | 1,2 | 103,93 | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 14,0     | 11434   | 1,2 | 69,78  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 12,9     | 12361   | 1,1 | 114,27 | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 12,8     | 12572   | 1,1 | 76,72  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |
| 11,6     | 13660   | 1,0 | 126,29 | B163         | 180M <sup>(2)</sup>  | 4          | 80000         | 65000     |
| 11,2     | 14345   | 1,0 | 87,54  | B163         | 200LA <sup>(2)</sup> | 6          | 80000         | 65000     |

## 22,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------------|---------------|-----------|
| 184,5    | 1025    | 1,5 | 7,97  | B123         | 180L <sup>(2)</sup> | 4          | 19106         | 5459      |
| 152,8    | 1237    | 1,5 | 9,62  | B123         | 180L <sup>(2)</sup> | 4          | 19658         | 5617      |
| 142,2    | 1329    | 1,5 | 10,33 | B123         | 180L <sup>(2)</sup> | 4          | 19842         | 5669      |
| 140,1    | 1350    | 3,3 | 10,49 | B153         | 180L <sup>(2)</sup> | 4          | 36651         | 36651     |
| 135,6    | 1394    | 2,2 | 10,84 | B143         | 180L <sup>(2)</sup> | 4          | 20251         | 20251     |
| 123,9    | 1527    | 2,0 | 11,87 | B143         | 180L <sup>(2)</sup> | 4          | 20579         | 20579     |
| 117,8    | 1605    | 1,2 | 12,48 | B123         | 180L <sup>(2)</sup> | 4          | 20241         | 5783      |
| 116,3    | 1626    | 2,8 | 12,64 | B153         | 180L <sup>(2)</sup> | 4          | 38696         | 38696     |
| 106,2    | 1781    | 1,2 | 13,84 | B123         | 180L <sup>(2)</sup> | 4          | 20396         | 5827      |
| 104,9    | 1802    | 2,8 | 14,01 | B153         | 180L <sup>(2)</sup> | 4          | 39855         | 39855     |
| 101,5    | 1863    | 1,7 | 14,49 | B143         | 180L <sup>(2)</sup> | 4          | 21235         | 21235     |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## 22,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 95,6        | 1979       | 1,1 | 15,38 | B123            | 180L <sup>(2)</sup>  | 4    | 20498            | 5856         |
| 95,5        | 1981       | 2,5 | 15,40 | B153            | 180L <sup>(2)</sup>  | 4    | 40939            | 40939        |
| 93,4        | 2045       | 2,3 | 10,49 | B153            | 200LB <sup>(2)</sup> | 6    | 41162            | 41162        |
| 90,4        | 2112       | 1,5 | 10,84 | B143            | 200LB <sup>(2)</sup> | 6    | 21497            | 21497        |
| 86,3        | 2192       | 1,5 | 17,04 | B143            | 180L <sup>(2)</sup>  | 4    | 21684            | 21684        |
| 82,6        | 2313       | 1,4 | 11,87 | B143            | 200LB <sup>(2)</sup> | 6    | 21715            | 21715        |
| 82,6        | 2313       | 3,5 | 11,87 | B163            | 200LB <sup>(2)</sup> | 6    | 67760            | 65000        |
| 79,2        | 2387       | 2,5 | 18,56 | B153            | 180L <sup>(2)</sup>  | 4    | 43126            | 43126        |
| 79,1        | 2389       | 0,9 | 18,58 | B123            | 180L <sup>(2)</sup>  | 4    | 20510            | 5860         |
| 78,8        | 2400       | 1,5 | 18,66 | B143            | 180L <sup>(2)</sup>  | 4    | 21891            | 21891        |
| 77,5        | 2464       | 1,9 | 12,64 | B153            | 200LB <sup>(2)</sup> | 6    | 43349            | 43349        |
| 76,5        | 2496       | 3,7 | 12,81 | B163            | 200LB <sup>(2)</sup> | 6    | 69268            | 65000        |
| 71,5        | 2645       | 2,5 | 20,56 | B153            | 180L <sup>(2)</sup>  | 4    | 44355            | 44355        |
| 71,3        | 2651       | 0,9 | 20,61 | B123            | 180L <sup>(2)</sup>  | 4    | 20406            | 5830         |
| 70,0        | 2701       | 1,5 | 21,00 | B143            | 180L <sup>(2)</sup>  | 4    | 22105            | 22105        |
| 69,9        | 2730       | 1,9 | 14,01 | B153            | 200LB <sup>(2)</sup> | 6    | 44578            | 44578        |
| 69,6        | 2745       | 3,7 | 14,08 | B163            | 200LB <sup>(2)</sup> | 6    | 71175            | 65000        |
| 67,7        | 2823       | 1,2 | 14,49 | B143            | 200LB <sup>(2)</sup> | 6    | 22065            | 22065        |
| 67,0        | 2823       | 3,7 | 21,94 | B163            | 180L <sup>(2)</sup>  | 4    | 71998            | 65000        |
| 64,6        | 2929       | 1,5 | 22,77 | B143            | 180L <sup>(2)</sup>  | 4    | 22211            | 22211        |
| 64,5        | 2930       | 1,0 | 22,78 | B123            | 180L <sup>(2)</sup>  | 4    | 20218            | 5777         |
| 63,6        | 3001       | 1,7 | 15,40 | B153            | 200LB <sup>(2)</sup> | 6    | 45720            | 45720        |
| 63,1        | 3025       | 3,5 | 15,52 | B163            | 200LB <sup>(2)</sup> | 6    | 73163            | 65000        |
| 61,6        | 3069       | 2,2 | 23,86 | B153            | 180L <sup>(2)</sup>  | 4    | 46158            | 46158        |
| 60,8        | 3109       | 3,4 | 24,17 | B163            | 180L <sup>(2)</sup>  | 4    | 73993            | 65000        |
| 59,8        | 3193       | 3,3 | 16,39 | B163            | 200LB <sup>(2)</sup> | 6    | 74284            | 65000        |
| 58,4        | 3240       | 2,1 | 25,19 | B153            | 180L <sup>(2)</sup>  | 4    | 46821            | 46821        |
| 57,5        | 3321       | 1,0 | 17,04 | B143            | 200LB <sup>(2)</sup> | 6    | 22188            | 22188        |
| 57,4        | 3297       | 1,4 | 25,63 | B143            | 180L <sup>(2)</sup>  | 4    | 22294            | 22294        |
| 55,3        | 3419       | 3,2 | 26,58 | B163            | 180L <sup>(2)</sup>  | 4    | 75978            | 65000        |
| 54,4        | 3511       | 3,1 | 18,02 | B163            | 200LB <sup>(2)</sup> | 6    | 76268            | 65000        |
| 53,6        | 3530       | 1,3 | 27,44 | B143            | 180L <sup>(2)</sup>  | 4    | 22298            | 22298        |
| 52,8        | 3616       | 1,7 | 18,56 | B153            | 200LB <sup>(2)</sup> | 6    | 47998            | 47998        |
| 52,5        | 3636       | 1,0 | 18,66 | B143            | 200LB <sup>(2)</sup> | 6    | 22178            | 22178        |
| 52,1        | 3631       | 2,2 | 28,23 | B153            | 180L <sup>(2)</sup>  | 4    | 48226            | 48226        |
| 51,0        | 3705       | 2,8 | 28,80 | B163            | 180L <sup>(2)</sup>  | 4    | 77679            | 65000        |
| 49,1        | 3889       | 2,9 | 19,96 | B163            | 200LB <sup>(2)</sup> | 6    | 78437            | 65000        |
| 48,9        | 3865       | 1,2 | 30,05 | B143            | 180L <sup>(2)</sup>  | 4    | 22249            | 22249        |
| 48,4        | 3904       | 2,0 | 30,35 | B153            | 180L <sup>(2)</sup>  | 4    | 49120            | 49120        |
| 47,7        | 4007       | 1,7 | 20,56 | B153            | 200LB <sup>(2)</sup> | 6    | 49263            | 49263        |
| 47,5        | 3978       | 2,9 | 30,92 | B163            | 180L <sup>(2)</sup>  | 4    | 79200            | 65000        |
| 46,7        | 4092       | 1,0 | 21,00 | B143            | 200LB <sup>(2)</sup> | 6    | 22067            | 22067        |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## 22,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size        | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|----------------------|------|------------------|--------------|
| 44,7        | 4276       | 2,6 | 21,94 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 44,5        | 4246       | 1,1 | 33,01 | B143            | 180L <sup>(2)</sup>  | 4    | 22123            | 22123        |
| 43,7        | 4326       | 1,8 | 33,63 | B153            | 180L <sup>(2)</sup>  | 4    | 50392            | 50392        |
| 43,0        | 4438       | 1,0 | 22,77 | B143            | 200LB <sup>(2)</sup> | 6    | 21916            | 21916        |
| 42,9        | 4406       | 2,7 | 34,25 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 42,0        | 4504       | 1,8 | 35,02 | B153            | 180L <sup>(2)</sup>  | 4    | 50891            | 50891        |
| 41,1        | 4649       | 1,5 | 23,86 | B153            | 200LB <sup>(2)</sup> | 6    | 51092            | 51092        |
| 40,5        | 4711       | 2,3 | 24,17 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 40,1        | 4717       | 1,0 | 36,67 | B143            | 180L <sup>(2)</sup>  | 4    | 21880            | 21880        |
| 39,0        | 4845       | 2,5 | 37,66 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 38,9        | 4908       | 1,5 | 25,19 | B153            | 200LB <sup>(2)</sup> | 6    | 51758            | 51758        |
| 38,2        | 4994       | 1,0 | 25,63 | B143            | 200LB <sup>(2)</sup> | 6    | 21575            | 21575        |
| 37,9        | 4992       | 1,6 | 38,81 | B153            | 180L <sup>(2)</sup>  | 4    | 52159            | 52159        |
| 36,9        | 5179       | 2,3 | 26,58 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 36,5        | 5183       | 0,9 | 40,29 | B143            | 180L <sup>(2)</sup>  | 4    | 21560            | 21560        |
| 36,2        | 5229       | 2,4 | 40,65 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 35,7        | 5348       | 0,9 | 27,44 | B143            | 200LB <sup>(2)</sup> | 6    | 21303            | 21303        |
| 34,8        | 5441       | 1,5 | 42,30 | B153            | 180L <sup>(2)</sup>  | 4    | 53215            | 53215        |
| 34,7        | 5502       | 1,5 | 28,23 | B153            | 200LB <sup>(2)</sup> | 6    | 53149            | 53149        |
| 34,0        | 5612       | 1,9 | 28,80 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 32,6        | 5800       | 2,1 | 45,09 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 32,3        | 5914       | 1,4 | 30,35 | B153            | 200LB <sup>(2)</sup> | 6    | 54023            | 54023        |
| 31,7        | 6026       | 2,0 | 30,92 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 30,9        | 6114       | 1,3 | 47,53 | B153            | 180L <sup>(2)</sup>  | 4    | 54630            | 54630        |
| 29,1        | 6554       | 1,3 | 33,63 | B153            | 200LB <sup>(2)</sup> | 6    | 55246            | 55246        |
| 29,1        | 6504       | 1,2 | 50,56 | B153            | 180L <sup>(2)</sup>  | 4    | 55368            | 55368        |
| 28,8        | 6560       | 2,0 | 51,00 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 28,6        | 6675       | 1,9 | 34,25 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 28,0        | 6824       | 1,2 | 35,02 | B153            | 200LB <sup>(2)</sup> | 6    | 55720            | 55720        |
| 27,4        | 6898       | 1,9 | 53,63 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 26,9        | 7029       | 1,1 | 54,64 | B153            | 180L <sup>(2)</sup>  | 4    | 56282            | 56282        |
| 26,0        | 7339       | 1,8 | 37,66 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 25,7        | 7367       | 1,1 | 57,27 | B153            | 180L <sup>(2)</sup>  | 4    | 56827            | 56827        |
| 25,3        | 7563       | 1,1 | 38,81 | B153            | 200LB <sup>(2)</sup> | 6    | 56904            | 56904        |
| 24,9        | 7585       | 1,7 | 58,97 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 24,1        | 7837       | 1,0 | 60,92 | B153            | 180L <sup>(2)</sup>  | 4    | 57531            | 57531        |
| 24,1        | 7922       | 1,7 | 40,65 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 23,2        | 8242       | 1,0 | 42,30 | B153            | 200LB <sup>(2)</sup> | 6    | 57866            | 57866        |
| 23,2        | 8164       | 1,0 | 63,47 | B153            | 180L <sup>(2)</sup>  | 4    | 57990            | 57990        |
| 21,7        | 8787       | 1,4 | 45,09 | B163            | 200LB <sup>(2)</sup> | 6    | 80000            | 65000        |
| 21,1        | 8975       | 1,4 | 69,78 | B163            | 180L <sup>(2)</sup>  | 4    | 80000            | 65000        |
| 20,6        | 9263       | 0,9 | 47,53 | B153            | 200LB <sup>(2)</sup> | 6    | 59116            | 59116        |

(2) With TBS brake motor, please contact our Technical Sales Support

## 22,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i      | Gear reducer | Motor Size           | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|--------|--------------|----------------------|------|---------------|-----------|
| 19,2     | 9939    | 1,4 | 51,00  | B163         | 200LB <sup>(2)</sup> | 6    | 80000         | 65000     |
| 19,2     | 9868    | 1,3 | 76,72  | B163         | 180L <sup>(2)</sup>  | 4    | 80000         | 65000     |
| 18,3     | 10451   | 1,3 | 53,63  | B163         | 200LB <sup>(2)</sup> | 6    | 80000         | 65000     |
| 16,8     | 11260   | 1,2 | 87,54  | B163         | 180L <sup>(2)</sup>  | 4    | 80000         | 65000     |
| 16,6     | 11491   | 1,2 | 58,97  | B163         | 200LB <sup>(2)</sup> | 6    | 80000         | 65000     |
| 15,3     | 12380   | 1,1 | 96,25  | B163         | 180L <sup>(2)</sup>  | 4    | 80000         | 65000     |
| 14,1     | 13369   | 1,0 | 103,93 | B163         | 180L <sup>(2)</sup>  | 4    | 80000         | 65000     |
| 14,0     | 13598   | 1,0 | 69,78  | B163         | 200LB <sup>(2)</sup> | 6    | 80000         | 65000     |
| 12,8     | 14951   | 0,9 | 76,72  | B163         | 200LB <sup>(2)</sup> | 6    | 80000         | 65000     |

## 30,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------|---------------|-----------|
| 140,6    | 1834    | 2,5 | 10,49 | B153         | 200L <sup>(2)</sup> | 4    | 35897         | 35897     |
| 136,1    | 1895    | 1,6 | 10,84 | B143         | 200L <sup>(2)</sup> | 4    | 18627         | 18627     |
| 124,3    | 2075    | 1,5 | 11,87 | B143         | 200L <sup>(2)</sup> | 4    | 18802         | 18802     |
| 124,3    | 2075    | 3,7 | 11,87 | B163         | 200L <sup>(2)</sup> | 4    | 59114         | 59114     |
| 116,7    | 2210    | 2,0 | 12,64 | B153         | 200L <sup>(2)</sup> | 4    | 37793         | 37793     |
| 115,2    | 2239    | 3,9 | 12,81 | B163         | 200L <sup>(2)</sup> | 4    | 60424         | 60424     |
| 105,3    | 2449    | 2,0 | 14,01 | B153         | 200L <sup>(2)</sup> | 4    | 38858         | 38858     |
| 104,7    | 2462    | 3,9 | 14,08 | B163         | 200L <sup>(2)</sup> | 4    | 62080         | 62080     |
| 101,8    | 2532    | 1,2 | 14,49 | B143         | 200L <sup>(2)</sup> | 4    | 19071         | 19071     |
| 95,8     | 2692    | 1,9 | 15,40 | B153         | 200L <sup>(2)</sup> | 4    | 39847         | 39847     |
| 95,0     | 2713    | 3,7 | 15,52 | B163         | 200L <sup>(2)</sup> | 4    | 63806         | 63806     |
| 90,0     | 2864    | 3,5 | 16,39 | B163         | 200L <sup>(2)</sup> | 4    | 64778         | 64778     |
| 86,6     | 2979    | 1,1 | 17,04 | B143         | 200L <sup>(2)</sup> | 4    | 19141         | 19141     |
| 81,9     | 3149    | 3,3 | 18,02 | B163         | 200L <sup>(2)</sup> | 4    | 66499         | 65000     |
| 79,5     | 3244    | 1,8 | 18,56 | B153         | 200L <sup>(2)</sup> | 4    | 41817         | 41817     |
| 79,1     | 3262    | 1,1 | 18,66 | B143         | 200L <sup>(2)</sup> | 4    | 19109         | 19109     |
| 73,9     | 3489    | 3,1 | 19,96 | B163         | 200L <sup>(2)</sup> | 4    | 68378         | 65000     |
| 71,7     | 3595    | 1,8 | 20,56 | B153         | 200L <sup>(2)</sup> | 4    | 42908         | 42908     |
| 70,2     | 3670    | 1,1 | 21,00 | B143         | 200L <sup>(2)</sup> | 4    | 18978         | 18978     |
| 67,2     | 3836    | 2,7 | 21,94 | B163         | 200L <sup>(2)</sup> | 4    | 70141         | 65000     |
| 64,8     | 3981    | 1,1 | 22,77 | B143         | 200L <sup>(2)</sup> | 4    | 18821         | 18821     |
| 61,8     | 4171    | 1,6 | 23,86 | B153         | 200L <sup>(2)</sup> | 4    | 44485         | 44485     |
| 61,0     | 4226    | 2,5 | 24,17 | B163         | 200L <sup>(2)</sup> | 4    | 71953         | 65000     |
| 58,6     | 4403    | 1,5 | 25,19 | B153         | 200L <sup>(2)</sup> | 4    | 45057         | 45057     |
| 57,6     | 4480    | 1,0 | 25,63 | B143         | 200L <sup>(2)</sup> | 4    | 18481         | 18481     |
| 55,5     | 4646    | 2,4 | 26,58 | B163         | 200L <sup>(2)</sup> | 4    | 73741         | 65000     |
| 53,7     | 4797    | 1,0 | 27,44 | B143         | 200L <sup>(2)</sup> | 4    | 18218         | 18218     |
| 52,2     | 4935    | 1,6 | 28,23 | B153         | 200L <sup>(2)</sup> | 4    | 46253         | 46253     |
| 51,2     | 5035    | 2,0 | 28,80 | B163         | 200L <sup>(2)</sup> | 4    | 75261         | 65000     |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## 5.1 B/BA GEARED MOTORS (50Hz)

## 30,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------------|---------------|-----------|
| 48,6     | 5305    | 1,5 | 30,35 | B153         | 200L <sup>(2)</sup> | 4          | 47002         | 47002     |
| 47,7     | 5406    | 2,1 | 30,92 | B163         | 200L <sup>(2)</sup> | 4          | 76609         | 65000     |
| 43,9     | 5879    | 1,4 | 33,63 | B153         | 200L <sup>(2)</sup> | 4          | 48050         | 48050     |
| 43,1     | 5988    | 2,0 | 34,25 | B163         | 200L <sup>(2)</sup> | 4          | 78546         | 65000     |
| 42,1     | 6122    | 1,3 | 35,02 | B153         | 200L <sup>(2)</sup> | 4          | 48454         | 48454     |
| 39,2     | 6584    | 1,9 | 37,66 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 38,0     | 6784    | 1,2 | 38,81 | B153         | 200L <sup>(2)</sup> | 4          | 49463         | 49463     |
| 36,3     | 7107    | 1,8 | 40,65 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 34,9     | 7394    | 1,1 | 42,30 | B153         | 200L <sup>(2)</sup> | 4          | 50281         | 50281     |
| 32,7     | 7883    | 1,5 | 45,09 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 31,0     | 8309    | 1,0 | 47,53 | B153         | 200L <sup>(2)</sup> | 4          | 51338         | 51338     |
| 29,2     | 8839    | 0,9 | 50,56 | B153         | 200L <sup>(2)</sup> | 4          | 51870         | 51870     |
| 28,9     | 8915    | 1,5 | 51,00 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 27,5     | 9375    | 1,4 | 53,63 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 25,0     | 10308   | 1,3 | 58,97 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 21,1     | 12198   | 1,1 | 69,78 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |
| 19,2     | 13411   | 1,0 | 76,72 | B163         | 200L <sup>(2)</sup> | 4          | 80000         | 65000     |

## 37,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------------|---------------|-----------|
| 167,0    | 1904    | 3,6 | 8,89  | B163         | 225S <sup>(2)</sup> | 4          | 53581         | 53581     |
| 141,5    | 2247    | 2,0 | 10,49 | B153         | 225S <sup>(2)</sup> | 4          | 35205         | 35205     |
| 140,4    | 2265    | 3,5 | 10,58 | B163         | 225S <sup>(2)</sup> | 4          | 56303         | 56303     |
| 125,1    | 2542    | 3,0 | 11,87 | B163         | 225S <sup>(2)</sup> | 4          | 58158         | 58158     |
| 117,5    | 2707    | 1,7 | 12,64 | B153         | 225S <sup>(2)</sup> | 4          | 36972         | 36972     |
| 115,9    | 2743    | 3,2 | 12,81 | B163         | 225S <sup>(2)</sup> | 4          | 59400         | 59400     |
| 106,0    | 3000    | 1,7 | 14,01 | B153         | 225S <sup>(2)</sup> | 4          | 37955         | 37955     |
| 105,4    | 3016    | 3,2 | 14,08 | B163         | 225S <sup>(2)</sup> | 4          | 60964         | 60964     |
| 96,4     | 3298    | 1,5 | 15,40 | B153         | 225S <sup>(2)</sup> | 4          | 38861         | 38861     |
| 95,7     | 3324    | 3,0 | 15,52 | B163         | 225S <sup>(2)</sup> | 4          | 62586         | 62586     |
| 90,6     | 3509    | 2,8 | 16,39 | B163         | 225S <sup>(2)</sup> | 4          | 63497         | 63497     |
| 82,4     | 3858    | 2,7 | 18,02 | B163         | 225S <sup>(2)</sup> | 4          | 65101         | 65000     |
| 80,0     | 3974    | 1,5 | 18,56 | B153         | 225S <sup>(2)</sup> | 4          | 40642         | 40642     |
| 74,4     | 4274    | 2,5 | 19,96 | B163         | 225S <sup>(2)</sup> | 4          | 66841         | 65000     |
| 72,2     | 4404    | 1,5 | 20,56 | B153         | 225S <sup>(2)</sup> | 4          | 41614         | 41614     |
| 67,7     | 4699    | 2,2 | 21,94 | B163         | 225S <sup>(2)</sup> | 4          | 68462         | 65000     |
| 62,2     | 5109    | 1,3 | 23,86 | B153         | 225S <sup>(2)</sup> | 4          | 42995         | 42995     |
| 61,4     | 5177    | 2,0 | 24,17 | B163         | 225S <sup>(2)</sup> | 4          | 70115         | 65000     |
| 59,0     | 5394    | 1,3 | 25,19 | B153         | 225S <sup>(2)</sup> | 4          | 43489         | 43489     |
| 55,9     | 5692    | 2,0 | 26,58 | B163         | 225S <sup>(2)</sup> | 4          | 71732         | 65000     |
| 52,6     | 6046    | 1,3 | 28,23 | B153         | 225S <sup>(2)</sup> | 4          | 44505         | 44505     |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support



## 5.1 B/BA GEARED MOTORS (50Hz)

## 37,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|------|------------------|--------------|
| 51,6        | 6168       | 1,7 | 28,80 | B163            | 225S <sup>(2)</sup> | 4    | 73094            | 65000        |
| 48,9        | 6499       | 1,2 | 30,35 | B153            | 225S <sup>(2)</sup> | 4    | 45129            | 45129        |
| 48,0        | 6622       | 1,7 | 30,92 | B163            | 225S <sup>(2)</sup> | 4    | 74292            | 65000        |
| 44,2        | 7203       | 1,1 | 33,63 | B153            | 225S <sup>(2)</sup> | 4    | 45983            | 45983        |
| 43,4        | 7335       | 1,6 | 34,25 | B163            | 225S <sup>(2)</sup> | 4    | 75993            | 65000        |
| 42,4        | 7499       | 1,1 | 35,02 | B153            | 225S <sup>(2)</sup> | 4    | 46306            | 46306        |
| 39,4        | 8065       | 1,5 | 37,66 | B163            | 225S <sup>(2)</sup> | 4    | 77542            | 65000        |
| 38,3        | 8311       | 1,0 | 38,81 | B153            | 225S <sup>(2)</sup> | 4    | 47092            | 47092        |
| 36,5        | 8706       | 1,5 | 40,65 | B163            | 225S <sup>(2)</sup> | 4    | 78763            | 65000        |
| 32,9        | 9656       | 1,2 | 45,09 | B163            | 225S <sup>(2)</sup> | 4    | 80000            | 65000        |
| 29,1        | 10922      | 1,2 | 51,00 | B163            | 225S <sup>(2)</sup> | 4    | 80000            | 65000        |
| 27,7        | 11485      | 1,1 | 53,63 | B163            | 225S <sup>(2)</sup> | 4    | 80000            | 65000        |
| 25,2        | 12627      | 1,0 | 58,97 | B163            | 225S <sup>(2)</sup> | 4    | 80000            | 65000        |

## 45,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Motor<br>Size       | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|------|------------------|--------------|
| 167,0       | 2316       | 2,9 | 8,89  | B163            | 225M <sup>(2)</sup> | 4    | 52862            | 52862        |
| 141,5       | 2733       | 1,6 | 10,49 | B153            | 225M <sup>(2)</sup> | 4    | 34492            | 34492        |
| 140,4       | 2754       | 2,9 | 10,58 | B163            | 225M <sup>(2)</sup> | 4    | 55447            | 55447        |
| 125,1       | 3091       | 2,5 | 11,87 | B163            | 225M <sup>(2)</sup> | 4    | 57198            | 57198        |
| 117,5       | 3293       | 1,4 | 12,64 | B153            | 225M <sup>(2)</sup> | 4    | 36114            | 36114        |
| 115,9       | 3336       | 2,6 | 12,81 | B163            | 225M <sup>(2)</sup> | 4    | 58364            | 58364        |
| 106,0       | 3649       | 1,4 | 14,01 | B153            | 225M <sup>(2)</sup> | 4    | 37003            | 37003        |
| 105,4       | 3668       | 2,6 | 14,08 | B163            | 225M <sup>(2)</sup> | 4    | 59825            | 59825        |
| 96,4        | 4011       | 1,2 | 15,40 | B153            | 225M <sup>(2)</sup> | 4    | 37815            | 37815        |
| 95,7        | 4043       | 2,5 | 15,52 | B163            | 225M <sup>(2)</sup> | 4    | 61331            | 61331        |
| 90,6        | 4268       | 2,3 | 16,39 | B163            | 225M <sup>(2)</sup> | 4    | 62171            | 62171        |
| 82,4        | 4692       | 2,2 | 18,02 | B163            | 225M <sup>(2)</sup> | 4    | 63643            | 63643        |
| 80,0        | 4833       | 1,2 | 18,56 | B153            | 225M <sup>(2)</sup> | 4    | 39382            | 39382        |
| 74,4        | 5198       | 2,1 | 19,96 | B163            | 225M <sup>(2)</sup> | 4    | 65226            | 65000        |
| 72,2        | 5356       | 1,2 | 20,56 | B153            | 225M <sup>(2)</sup> | 4    | 40217            | 40217        |
| 67,7        | 5715       | 1,8 | 21,94 | B163            | 225M <sup>(2)</sup> | 4    | 66687            | 65000        |
| 62,2        | 6214       | 1,1 | 23,86 | B153            | 225M <sup>(2)</sup> | 4    | 41375            | 41375        |
| 61,4        | 6296       | 1,7 | 24,17 | B163            | 225M <sup>(2)</sup> | 4    | 68160            | 65000        |
| 59,0        | 6560       | 1,0 | 25,19 | B153            | 225M <sup>(2)</sup> | 4    | 41778            | 41778        |
| 55,9        | 6922       | 1,6 | 26,58 | B163            | 225M <sup>(2)</sup> | 4    | 69582            | 65000        |
| 52,6        | 7353       | 1,1 | 28,23 | B153            | 225M <sup>(2)</sup> | 4    | 42587            | 42587        |
| 51,6        | 7501       | 1,4 | 28,80 | B163            | 225M <sup>(2)</sup> | 4    | 70764            | 65000        |
| 48,9        | 7904       | 1,0 | 30,35 | B153            | 225M <sup>(2)</sup> | 4    | 43068            | 43068        |
| 48,0        | 8054       | 1,4 | 30,92 | B163            | 225M <sup>(2)</sup> | 4    | 71790            | 65000        |
| 44,2        | 8760       | 0,9 | 33,63 | B153            | 225M <sup>(2)</sup> | 4    | 43698            | 43698        |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## 45,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------------|---------------|-----------|
| 43,4     | 8921    | 1,3 | 34,25 | B163         | 225M <sup>(2)</sup> | 4          | 73222         | 65000     |
| 39,4     | 9809    | 1,3 | 37,66 | B163         | 225M <sup>(2)</sup> | 4          | 74495         | 65000     |
| 36,5     | 10588   | 1,2 | 40,65 | B163         | 225M <sup>(2)</sup> | 4          | 75474         | 65000     |
| 32,9     | 11744   | 1,0 | 45,09 | B163         | 225M <sup>(2)</sup> | 4          | 76723         | 65000     |
| 29,1     | 13283   | 1,0 | 51,00 | B163         | 225M <sup>(2)</sup> | 4          | 78067         | 65000     |
| 27,7     | 13968   | 0,9 | 53,63 | B163         | 225M <sup>(2)</sup> | 4          | 78565         | 65000     |

## 55,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------------|---------------|-----------|
| 167,0    | 2831    | 2,4 | 8,89  | B163         | 250M <sup>(2)</sup> | 4          | 51963         | 51963     |
| 140,4    | 3367    | 2,3 | 10,58 | B163         | 250M <sup>(2)</sup> | 4          | 54378         | 54378     |
| 125,1    | 3778    | 2,0 | 11,87 | B163         | 250M <sup>(2)</sup> | 4          | 55998         | 55998     |
| 115,9    | 4078    | 2,2 | 12,81 | B163         | 250M <sup>(2)</sup> | 4          | 57069         | 57069     |
| 105,4    | 4483    | 2,1 | 14,08 | B163         | 250M <sup>(2)</sup> | 4          | 58401         | 58401     |
| 95,7     | 4941    | 2,0 | 15,52 | B163         | 250M <sup>(2)</sup> | 4          | 59761         | 59761     |
| 90,6     | 5216    | 1,9 | 16,39 | B163         | 250M <sup>(2)</sup> | 4          | 60514         | 60514     |
| 82,4     | 5735    | 1,8 | 18,02 | B163         | 250M <sup>(2)</sup> | 4          | 61821         | 61821     |
| 74,4     | 6353    | 1,7 | 19,96 | B163         | 250M <sup>(2)</sup> | 4          | 63208         | 63208     |
| 67,7     | 6985    | 1,5 | 21,94 | B163         | 250M <sup>(2)</sup> | 4          | 64468         | 64468     |
| 61,4     | 7695    | 1,4 | 24,17 | B163         | 250M <sup>(2)</sup> | 4          | 65715         | 65000     |
| 55,9     | 8461    | 1,3 | 26,58 | B163         | 250M <sup>(2)</sup> | 4          | 66894         | 65000     |
| 51,6     | 9168    | 1,1 | 28,80 | B163         | 250M <sup>(2)</sup> | 4          | 67852         | 65000     |
| 48,0     | 9844    | 1,2 | 30,92 | B163         | 250M <sup>(2)</sup> | 4          | 68663         | 65000     |
| 43,4     | 10904   | 1,1 | 34,25 | B163         | 250M <sup>(2)</sup> | 4          | 69758         | 65000     |
| 39,4     | 11989   | 1,0 | 37,66 | B163         | 250M <sup>(2)</sup> | 4          | 70686         | 65000     |
| 36,5     | 12941   | 1,0 | 40,65 | B163         | 250M <sup>(2)</sup> | 4          | 71363         | 65000     |

## 75,00 kW

| n2 [rpm] | M2 [Nm] | fs  | i     | Gear reducer | Motor Size          | Motor Pole | Fr2 D-S-P [N] | Fr2 C [N] |
|----------|---------|-----|-------|--------------|---------------------|------------|---------------|-----------|
| 167,0    | 3860    | 1,8 | 8,89  | B163         | 280S <sup>(2)</sup> | 4          | 50164         | 50164     |
| 140,4    | 4591    | 1,7 | 10,58 | B163         | 280S <sup>(2)</sup> | 4          | 52239         | 52239     |
| 125,1    | 5152    | 1,5 | 11,87 | B163         | 280S <sup>(2)</sup> | 4          | 53597         | 53597     |
| 115,9    | 5560    | 1,6 | 12,81 | B163         | 280S <sup>(2)</sup> | 4          | 54478         | 54478     |
| 105,4    | 6113    | 1,6 | 14,08 | B163         | 280S <sup>(2)</sup> | 4          | 55553         | 55553     |
| 95,7     | 6738    | 1,5 | 15,52 | B163         | 280S <sup>(2)</sup> | 4          | 56622         | 56622     |
| 90,6     | 7113    | 1,4 | 16,39 | B163         | 280S <sup>(2)</sup> | 4          | 57200         | 57200     |
| 82,4     | 7821    | 1,3 | 18,02 | B163         | 280S <sup>(2)</sup> | 4          | 58177         | 58177     |
| 67,7     | 9526    | 1,1 | 21,94 | B163         | 280S <sup>(2)</sup> | 4          | 60029         | 60029     |
| 61,4     | 10493   | 1,0 | 24,17 | B163         | 280S <sup>(2)</sup> | 4          | 60826         | 60826     |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## 5.1 B/BA GEARED MOTORS (50Hz)

## 75,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Size                | Motor | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|-------|------|------------------|--------------|
| 55,9        | 11537      | 1,0 | 26,58 | B163            | 280S <sup>(2)</sup> |       | 4    | 61519            | 61519        |

## 90,00 kW

| n2<br>[rpm] | M2<br>[Nm] | fs  | i     | Gear<br>reducer | Size                | Motor | Pole | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------|------------|-----|-------|-----------------|---------------------|-------|------|------------------|--------------|
| 167,0       | 4632       | 1,5 | 8,89  | B163            | 280M <sup>(2)</sup> |       | 4    | 48815            | 48815        |
| 140,4       | 5509       | 1,4 | 10,58 | B163            | 280M <sup>(2)</sup> |       | 4    | 50635            | 50635        |
| 125,1       | 6183       | 1,2 | 11,87 | B163            | 280M <sup>(2)</sup> |       | 4    | 51797            | 51797        |
| 115,9       | 6672       | 1,3 | 12,81 | B163            | 280M <sup>(2)</sup> |       | 4    | 52535            | 52535        |
| 105,4       | 7336       | 1,3 | 14,08 | B163            | 280M <sup>(2)</sup> |       | 4    | 53416            | 53416        |
| 95,7        | 8085       | 1,2 | 15,52 | B163            | 280M <sup>(2)</sup> |       | 4    | 54267            | 54267        |
| 90,6        | 8536       | 1,2 | 16,39 | B163            | 280M <sup>(2)</sup> |       | 4    | 54714            | 54714        |
| 82,4        | 9385       | 1,1 | 18,02 | B163            | 280M <sup>(2)</sup> |       | 4    | 55445            | 55445        |
| 67,7        | 11431      | 0,9 | 21,94 | B163            | 280M <sup>(2)</sup> |       | 4    | 56701            | 56701        |

<sup>(2)</sup> With TBS brake motor, please contact our Technical Sales Support

## IBA42

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 85                      | 7,62  | 2,14                    | 229,8                   | 373        | -                | 1684         |
| 85                      | 10,62 | 1,54                    | 164,7                   | 355        | -                | 1882         |
| 85                      | 12,95 | 1,26                    | 135,2                   | 406        | -                | 2010         |
| 85                      | 14,46 | 1,13                    | 121,0                   | 443        | -                | 2085         |
| 113                     | 16,47 | 1,32                    | 106,2                   | 579        | -                | 2178         |
| 113                     | 22,97 | 0,95                    | 76,2                    | 355        | -                | 2433         |
| 113                     | 28,00 | 0,78                    | 62,5                    | 406        | -                | 2599         |
| 113                     | 31,27 | 0,70                    | 56,0                    | 443        | -                | 2697         |
| 113                     | 33,78 | 0,64                    | 51,8                    | 458        | -                | 2767         |
| 113                     | 47,12 | 0,46                    | 37,1                    | 355        | -                | 3092         |
| 113                     | 57,43 | 0,38                    | 30,5                    | 406        | -                | 3303         |
| 103                     | 64,13 | 0,31                    | 27,3                    | 406        | -                | 3426         |
| 103                     | 78,17 | 0,26                    | 22,4                    | 406        | -                | 3660         |

## IBA52

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 150                     | 7,91  | 3,67                    | 221,2                   | 373        | -                | 1828         |
| 150                     | 9,46  | 3,07                    | 185,0                   | 414        | -                | 1940         |
| 150                     | 11,57 | 2,51                    | 151,2                   | 405        | -                | 2075         |
| 150                     | 14,63 | 1,98                    | 119,7                   | 392        | -                | 2243         |
| 188                     | 17,11 | 2,12                    | 102,3                   | 529        | -                | 2363         |
| 188                     | 20,46 | 1,77                    | 85,5                    | 414        | -                | 2508         |
| 188                     | 25,03 | 1,45                    | 69,9                    | 405        | -                | 2683         |
| 188                     | 31,63 | 1,15                    | 55,3                    | 392        | -                | 2900         |
| 188                     | 35,10 | 1,03                    | 49,9                    | 446        | -                | 3003         |
| 188                     | 41,97 | 0,86                    | 41,7                    | 414        | -                | 3187         |
| 207                     | 51,34 | 0,78                    | 34,1                    | 445        | -                | 3409         |
| 188                     | 64,87 | 0,56                    | 27,0                    | 356        | -                | 3685         |
| 188                     | 79,07 | 0,46                    | 22,1                    | 406        | -                | 3936         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 207                     | 73,70  | 0,57                    | 23,7                    | 472        | -                | 3845         |
| 207                     | 93,33  | 0,45                    | 18,8                    | 472        | -                | 4000         |
| 207                     | 111,61 | 0,38                    | 15,7                    | 472        | -                | 4000         |
| 207                     | 136,53 | 0,31                    | 12,8                    | 472        | -                | 4000         |
| 207                     | 172,53 | 0,24                    | 10,1                    | 472        | -                | 4000         |
| 207                     | 197,11 | 0,21                    | 8,9                     | 472        | -                | 4000         |
| 207                     | 249,08 | 0,17                    | 7,0                     | 472        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 207                     | 271,16 | 0,16                    | 6,5                     | 472        | -                | 4000         |
| 207                     | 342,65 | 0,12                    | 5,1                     | 472        | -                | 4000         |

## IBA72

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 329                     | 8,36  | 7,59                    | 209,4                   | 664        | 4715             | 2357         |
| 329                     | 10,06 | 6,31                    | 174,0                   | 685        | 5016             | 2508         |
| 329                     | 12,44 | 5,10                    | 140,6                   | 667        | 5384             | 2692         |
| 395                     | 14,91 | 5,11                    | 117,4                   | 826        | 5718             | 2859         |
| 395                     | 17,94 | 4,24                    | 97,5                    | 685        | 6083             | 3041         |
| 395                     | 22,19 | 3,43                    | 78,8                    | 667        | 6529             | 3265         |
| 395                     | 27,45 | 2,77                    | 63,8                    | 667        | 7009             | 3504         |
| 395                     | 33,04 | 2,30                    | 53,0                    | 685        | 7456             | 3728         |
| 376                     | 40,87 | 1,77                    | 42,8                    | 635        | 8003             | 4002         |
| 329                     | 45,64 | 1,39                    | 38,3                    | 646        | 8303             | 4152         |
| 329                     | 54,94 | 1,16                    | 31,9                    | 685        | 8833             | 4416         |
| 329                     | 67,96 | 0,93                    | 25,8                    | 667        | 9481             | 4741         |

## IBA73

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 423                     | 43,89  | 1,96                    | 39,9                    | 330        | 8196             | 4098         |
| 423                     | 52,83  | 1,63                    | 33,1                    | 411        | 8718             | 4359         |
| 423                     | 65,35  | 1,32                    | 26,8                    | 400        | 9358             | 4679         |
| 423                     | 80,83  | 1,07                    | 21,6                    | 400        | 10000            | 5023         |
| 423                     | 97,29  | 0,89                    | 18,0                    | 411        | 10000            | 5343         |
| 423                     | 120,34 | 0,72                    | 14,5                    | 400        | 10000            | 5500         |
| 423                     | 149,73 | 0,58                    | 11,7                    | 398        | 10000            | 5500         |
| 423                     | 180,23 | 0,48                    | 9,7                     | 411        | 10000            | 5500         |
| 423                     | 222,93 | 0,39                    | 7,8                     | 400        | 10000            | 5500         |
| 423                     | 260,20 | 0,33                    | 6,7                     | 424        | 10000            | 5500         |
| 423                     | 321,85 | 0,27                    | 5,4                     | 400        | 10000            | 5500         |
| 423                     | 357,95 | 0,24                    | 4,9                     | 445        | 10000            | 5500         |
| 423                     | 442,76 | 0,19                    | 4,0                     | 400        | 10000            | 5500         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|------|-------------------------|-------------------------|------------|------------------|--------------|
| 273                     | 5,71 | 9,71                    | 306,2                   | 367        | 6520             | 1863         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 320                     | 6,88   | 9,46                    | 254,4                   | 388        | 6797             | 1942         |
| 329                     | 7,32   | 9,15                    | 239,0                   | 415        | 6927             | 1979         |
| 432                     | 9,16   | 9,61                    | 191,0                   | 375        | 7105             | 2030         |
| 489                     | 10,26  | 9,70                    | 170,5                   | 368        | 7197             | 2056         |
| 508                     | 11,03  | 9,37                    | 158,7                   | 395        | 7337             | 2096         |
| 545                     | 12,35  | 8,98                    | 141,7                   | 428        | 7536             | 2153         |
| 555                     | 13,15  | 8,59                    | 133,1                   | 462        | 7702             | 2200         |
| 555                     | 15,18  | 7,44                    | 115,3                   | 559        | 8195             | 2341         |
| 564                     | 17,00  | 6,75                    | 102,9                   | 618        | 8562             | 2446         |
| 564                     | 22,39  | 5,13                    | 78,2                    | 756        | 9618             | 2748         |
| 564                     | 26,09  | 4,40                    | 67,1                    | 817        | 10248            | 2928         |
| 564                     | 28,03  | 4,10                    | 62,4                    | 843        | 10554            | 3016         |
| 564                     | 33,43  | 3,43                    | 52,3                    | 899        | 11338            | 3240         |
| 564                     | 38,58  | 2,98                    | 45,4                    | 938        | 12000            | 3431         |
| 564                     | 43,22  | 2,66                    | 40,5                    | 965        | 12000            | 3590         |
| 564                     | 50,81  | 2,26                    | 34,4                    | 999        | 12000            | 3827         |
| 564                     | 56,93  | 2,02                    | 30,7                    | 1020       | 12000            | 4001         |
| 564                     | 69,16  | 1,66                    | 25,3                    | 1050       | 12000            | 4315         |
| 564                     | 77,48  | 1,48                    | 22,6                    | 1065       | 12000            | 4508         |
| 564                     | 90,33  | 1,27                    | 19,4                    | 1083       | 12000            | 4779         |
| 564                     | 101,20 | 1,13                    | 17,3                    | 1095       | 12000            | 4990         |
| 564                     | 111,74 | 1,03                    | 15,7                    | 1104       | 12000            | 5180         |
| 564                     | 124,20 | 0,92                    | 14,1                    | 1113       | 12000            | 5390         |
| 564                     | 139,15 | 0,83                    | 12,6                    | 1121       | 12000            | 5623         |
| 564                     | 157,42 | 0,73                    | 11,1                    | 1129       | 12000            | 5887         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 470                     | 7,81  | 12,25                   | 224,1                   | 1764       | 11107            | 3173         |
| 564                     | 8,62  | 13,32                   | 202,9                   | 1657       | 11159            | 3188         |
| 611                     | 10,49 | 11,85                   | 166,8                   | 1804       | 11869            | 3391         |
| 705                     | 11,59 | 12,39                   | 151,0                   | 1750       | 11965            | 3419         |
| 761                     | 14,43 | 10,74                   | 121,3                   | 1916       | 12849            | 3671         |
| 799                     | 16,60 | 9,80                    | 105,5                   | 2011       | 13450            | 3843         |
| 799                     | 18,32 | 8,88                    | 95,5                    | 2104       | 14004            | 4001         |
| 799                     | 22,82 | 7,13                    | 76,7                    | 2281       | 15298            | 4371         |
| 799                     | 26,71 | 6,09                    | 65,5                    | 2386       | 16288            | 4654         |
| 799                     | 29,50 | 5,52                    | 59,3                    | 2444       | 16936            | 4839         |
| 799                     | 31,80 | 5,12                    | 55,0                    | 2484       | 17443            | 4984         |
| 799                     | 34,49 | 4,72                    | 50,7                    | 2500       | 18000            | 5144         |
| 799                     | 39,60 | 4,11                    | 44,2                    | 2500       | 18000            | 5427         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 799                     | 42,95  | 3,79                    | 40,7                    | 2500       | 18000            | 5600         |
| 799                     | 45,44  | 3,58                    | 38,5                    | 2500       | 18000            | 5722         |
| 799                     | 51,19  | 3,18                    | 34,2                    | 2500       | 18000            | 5989         |
| 799                     | 55,52  | 2,93                    | 31,5                    | 2500       | 18000            | 6177         |
| 799                     | 59,96  | 2,71                    | 29,2                    | 2500       | 18000            | 6359         |
| 799                     | 63,74  | 2,55                    | 27,4                    | 2500       | 18000            | 6507         |
| 799                     | 69,14  | 2,35                    | 25,3                    | 2500       | 18000            | 6710         |
| 799                     | 73,14  | 2,22                    | 23,9                    | 2500       | 18000            | 6853         |
| 799                     | 80,76  | 2,01                    | 21,7                    | 2500       | 18000            | 7111         |
| 799                     | 92,19  | 1,76                    | 19,0                    | 2500       | 18000            | 7470         |
| 799                     | 100,57 | 1,62                    | 17,4                    | 2500       | 18000            | 7714         |
| 799                     | 105,29 | 1,55                    | 16,6                    | 2500       | 18000            | 7846         |
| 799                     | 116,25 | 1,40                    | 15,1                    | 2500       | 18000            | 8137         |
| 799                     | 126,76 | 1,28                    | 13,8                    | 2500       | 18000            | 8400         |
| 799                     | 144,77 | 1,12                    | 12,1                    | 2500       | 18000            | 8818         |

## IB103

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 752                     | 8,13  | 18,84                   | 215,3                   | 1192       | 13788            | 3939         |
| 846                     | 8,97  | 19,21                   | 195,2                   | 1157       | 14044            | 4012         |
| 940                     | 10,92 | 17,53                   | 160,2                   | 1317       | 14880            | 4252         |
| 940                     | 12,05 | 15,88                   | 145,2                   | 1473       | 15461            | 4417         |
| 1128                    | 14,99 | 15,33                   | 116,8                   | 1526       | 16275            | 4650         |
| 1316                    | 17,27 | 15,52                   | 101,3                   | 1508       | 16670            | 4763         |
| 1316                    | 19,06 | 14,06                   | 91,8                    | 1646       | 17345            | 4956         |
| 1316                    | 23,70 | 11,31                   | 73,8                    | 1907       | 18922            | 5406         |
| 1410                    | 26,51 | 10,83                   | 66,0                    | 1953       | 19508            | 5574         |
| 1504                    | 30,55 | 10,02                   | 57,3                    | 2029       | 20367            | 5819         |
| 1598                    | 33,07 | 9,84                    | 52,9                    | 2047       | 20749            | 5928         |
| 1598                    | 35,87 | 9,07                    | 48,8                    | 2120       | 21439            | 6125         |
| 1598                    | 41,12 | 7,91                    | 42,5                    | 2230       | 22000            | 6469         |
| 1598                    | 44,61 | 7,29                    | 39,2                    | 2288       | 22000            | 6680         |
| 1598                    | 47,28 | 6,88                    | 37,0                    | 2327       | 22000            | 6835         |
| 1598                    | 50,24 | 6,48                    | 34,8                    | 2366       | 22000            | 7000         |
| 1598                    | 53,02 | 6,14                    | 33,0                    | 2398       | 22000            | 7149         |
| 1598                    | 58,50 | 5,56                    | 29,9                    | 2453       | 22000            | 7429         |
| 1598                    | 64,89 | 5,01                    | 27,0                    | 2505       | 22000            | 7732         |
| 1598                    | 68,58 | 4,74                    | 25,5                    | 2530       | 22000            | 7899         |
| 1598                    | 72,76 | 4,47                    | 24,1                    | 2556       | 22000            | 8081         |
| 1598                    | 78,92 | 4,12                    | 22,2                    | 2589       | 22000            | 8336         |
| 1692                    | 83,66 | 4,12                    | 20,9                    | 2590       | 22000            | 8446         |

## IB103

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1692                    | 92,31  | 3,73                    | 19,0                    | 2626       | 22000            | 8771         |
| 1692                    | 105,44 | 3,27                    | 16,6                    | 2671       | 22000            | 9227         |
| 1692                    | 114,80 | 3,00                    | 15,2                    | 2696       | 22000            | 9529         |
| 1692                    | 120,42 | 2,86                    | 14,5                    | 2709       | 22000            | 9703         |
| 1692                    | 132,87 | 2,59                    | 13,2                    | 2735       | 22000            | 10069        |
| 1692                    | 144,69 | 2,38                    | 12,1                    | 2755       | 22000            | 10396        |
| 1692                    | 165,25 | 2,08                    | 10,6                    | 2783       | 22000            | 10924        |

## IB123

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1410                    | 7,97   | 36,04                   | 219,7                   | 2647       | 16004            | 4572         |
| 1692                    | 9,62   | 35,81                   | 181,9                   | 2656       | 16152            | 4615         |
| 1880                    | 10,33  | 37,04                   | 169,3                   | 2610       | 15860            | 4531         |
| 1880                    | 12,48  | 30,67                   | 140,2                   | 2849       | 17434            | 4981         |
| 1974                    | 13,84  | 29,03                   | 126,4                   | 2910       | 17910            | 5117         |
| 1974                    | 15,38  | 26,13                   | 113,8                   | 3019       | 18865            | 5390         |
| 2068                    | 18,58  | 22,67                   | 94,2                    | 3150       | 20227            | 5779         |
| 2350                    | 20,61  | 23,22                   | 84,9                    | 3129       | 19967            | 5705         |
| 2632                    | 22,78  | 23,52                   | 76,8                    | 3117       | 19706            | 5630         |
| 2632                    | 25,89  | 20,70                   | 67,6                    | 3223       | 21077            | 6022         |
| 2632                    | 27,51  | 19,48                   | 63,6                    | 3269       | 21748            | 6214         |
| 2632                    | 30,79  | 17,40                   | 56,8                    | 3347       | 23031            | 6580         |
| 2632                    | 31,26  | 17,14                   | 56,0                    | 3357       | 23207            | 6631         |
| 2632                    | 34,68  | 15,45                   | 50,5                    | 3421       | 24438            | 6982         |
| 2632                    | 40,53  | 13,22                   | 43,2                    | 3504       | 26365            | 7533         |
| 2820                    | 44,89  | 12,79                   | 39,0                    | 3521       | 26820            | 7663         |
| 3008                    | 49,80  | 12,30                   | 35,1                    | 3539       | 27343            | 7812         |
| 3008                    | 54,30  | 11,28                   | 32,2                    | 3577       | 28534            | 8153         |
| 3008                    | 59,36  | 10,32                   | 29,5                    | 3613       | 29797            | 8514         |
| 3102                    | 62,59  | 10,09                   | 28,0                    | 3622       | 30000            | 8610         |
| 3102                    | 69,43  | 9,10                    | 25,2                    | 3659       | 30000            | 9052         |
| 3290                    | 74,42  | 9,00                    | 23,5                    | 3663       | 30000            | 9109         |
| 3290                    | 80,04  | 8,37                    | 21,9                    | 3687       | 30000            | 9436         |
| 3290                    | 89,87  | 7,45                    | 19,5                    | 3721       | 30000            | 9971         |
| 3290                    | 99,70  | 6,72                    | 17,6                    | 3749       | 30000            | 10470        |
| 3290                    | 106,65 | 6,28                    | 16,4                    | 3765       | 30000            | 10802        |
| 3290                    | 119,60 | 5,60                    | 14,6                    | 3791       | 30000            | 11385        |
| 3290                    | 129,96 | 5,15                    | 13,5                    | 3808       | 30000            | 11822        |
| 3290                    | 144,43 | 4,64                    | 12,1                    | 3827       | 30000            | 12394        |
| 3290                    | 160,23 | 4,18                    | 10,9                    | 3844       | 30000            | 12976        |
| 3290                    | 180,40 | 3,71                    | 9,7                     | 3862       | 30000            | 13667        |



## IB143

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 2820                    | 10,84  | 52,97                   | 161,4                   | 2401       | 14322            | 14322        |
| 2914                    | 11,87  | 49,99                   | 147,5                   | 2491       | 14730            | 14730        |
| 2914                    | 14,49  | 40,96                   | 120,8                   | 2764       | 16364            | 16364        |
| 3008                    | 17,04  | 35,94                   | 102,7                   | 2916       | 17477            | 17477        |
| 3384                    | 18,66  | 36,93                   | 93,8                    | 2886       | 17100            | 17100        |
| 3760                    | 21,00  | 36,46                   | 83,3                    | 2900       | 17009            | 17009        |
| 4136                    | 22,77  | 36,98                   | 76,8                    | 2885       | 16597            | 16597        |
| 4324                    | 25,63  | 34,35                   | 68,3                    | 2964       | 17182            | 17182        |
| 4324                    | 27,44  | 32,08                   | 63,8                    | 3033       | 17889            | 17889        |
| 4418                    | 30,05  | 29,94                   | 58,2                    | 3098       | 18551            | 18551        |
| 4418                    | 33,01  | 27,25                   | 53,0                    | 3179       | 19580            | 19580        |
| 4512                    | 36,67  | 25,05                   | 47,7                    | 3245       | 20470            | 20470        |
| 4512                    | 40,29  | 22,80                   | 43,4                    | 3313       | 21570            | 21570        |
| 4512                    | 44,16  | 20,80                   | 39,6                    | 3374       | 22675            | 22675        |
| 4700                    | 48,35  | 19,79                   | 36,2                    | 3404       | 23201            | 23201        |
| 4700                    | 53,16  | 18,00                   | 32,9                    | 3458       | 24414            | 24414        |
| 4700                    | 54,63  | 17,52                   | 32,0                    | 3473       | 24770            | 24770        |
| 4700                    | 59,02  | 16,22                   | 29,6                    | 3512       | 25798            | 25798        |
| 4700                    | 64,88  | 14,75                   | 27,0                    | 3557       | 27093            | 27093        |
| 4700                    | 70,43  | 13,59                   | 24,9                    | 3592       | 28249            | 28249        |
| 4700                    | 77,12  | 12,41                   | 22,7                    | 3627       | 29562            | 29562        |
| 4700                    | 85,54  | 11,19                   | 20,5                    | 3664       | 31114            | 31114        |
| 4700                    | 94,13  | 10,17                   | 18,6                    | 3695       | 32591            | 32591        |
| 4700                    | 105,83 | 9,04                    | 16,5                    | 3729       | 34468            | 34468        |
| 4700                    | 111,94 | 8,55                    | 15,6                    | 3744       | 35392            | 35392        |
| 4700                    | 124,62 | 7,68                    | 14,0                    | 3770       | 37208            | 37208        |
| 4700                    | 136,44 | 7,01                    | 12,8                    | 3790       | 38793            | 38793        |
| 4700                    | 149,59 | 6,40                    | 11,7                    | 3809       | 40000            | 40000        |
| 4700                    | 166,53 | 5,75                    | 10,5                    | 3829       | 40000            | 40000        |
| 4700                    | 187,24 | 5,11                    | 9,3                     | 3848       | 40000            | 40000        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 4230                    | 10,49 | 82,09                   | 166,8                   | 7203       | 30265            | 30265        |
| 4230                    | 12,64 | 68,13                   | 138,4                   | 7657       | 32579            | 32579        |
| 4700                    | 14,01 | 68,30                   | 124,9                   | 7651       | 33227            | 33227        |
| 4700                    | 15,40 | 62,14                   | 113,6                   | 7852       | 34499            | 34499        |
| 5640                    | 18,56 | 61,89                   | 94,3                    | 7860       | 35747            | 35747        |
| 6110                    | 20,56 | 60,50                   | 85,1                    | 7905       | 36575            | 36575        |
| 6298                    | 23,86 | 53,75                   | 73,3                    | 8125       | 38588            | 38588        |
| 6392                    | 25,19 | 51,67                   | 69,5                    | 8193       | 39314            | 39314        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 7520                    | 28,23  | 54,24                   | 62,0                    | 8109       | 39527            | 39527        |
| 7520                    | 30,35  | 50,45                   | 57,7                    | 8232       | 40748            | 40748        |
| 7520                    | 33,63  | 45,52                   | 52,0                    | 8393       | 42534            | 42534        |
| 7520                    | 35,02  | 43,72                   | 50,0                    | 8451       | 43252            | 43252        |
| 7520                    | 38,81  | 39,45                   | 45,1                    | 8590       | 45125            | 45125        |
| 7520                    | 42,30  | 36,20                   | 41,4                    | 8696       | 46743            | 46743        |
| 7520                    | 47,53  | 32,21                   | 36,8                    | 8826       | 49012            | 49012        |
| 7520                    | 50,56  | 30,28                   | 34,6                    | 8889       | 50248            | 50248        |
| 7520                    | 54,64  | 28,02                   | 32,0                    | 8963       | 51837            | 51837        |
| 7520                    | 57,27  | 26,73                   | 30,6                    | 9005       | 52821            | 52821        |
| 7520                    | 60,92  | 25,13                   | 28,7                    | 9057       | 54136            | 54136        |
| 7520                    | 63,47  | 24,12                   | 27,6                    | 9090       | 55024            | 55024        |
| 7520                    | 71,15  | 21,52                   | 24,6                    | 9174       | 57559            | 57559        |
| 7520                    | 77,22  | 19,83                   | 22,7                    | 9229       | 59440            | 59440        |
| 7520                    | 83,89  | 18,25                   | 20,9                    | 9281       | 61391            | 61391        |
| 7520                    | 87,65  | 17,47                   | 20,0                    | 9306       | 62448            | 62448        |
| 7520                    | 93,05  | 16,46                   | 18,8                    | 9339       | 63911            | 63911        |
| 7520                    | 103,12 | 14,85                   | 17,0                    | 9392       | 65000            | 65000        |
| 7520                    | 123,88 | 12,36                   | 14,1                    | 9473       | 65000            | 65000        |
| 7520                    | 134,27 | 11,40                   | 13,0                    | 9504       | 65000            | 65000        |
| 7520                    | 149,26 | 10,26                   | 11,7                    | 9541       | 65000            | 65000        |
| 7520                    | 165,42 | 9,26                    | 10,6                    | 9574       | 65000            | 65000        |

## IB163

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 6392                    | 8,89  | 146,37                  | 196,8                   | 7268       | 42738            | 42738        |
| 7426                    | 10,58 | 142,97                  | 165,5                   | 7338       | 44107            | 44107        |
| 7238                    | 11,87 | 124,16                  | 147,4                   | 7730       | 46651            | 46651        |
| 8272                    | 12,81 | 131,49                  | 136,6                   | 7578       | 46354            | 46354        |
| 9024                    | 14,08 | 130,46                  | 124,3                   | 7599       | 46974            | 46974        |
| 9400                    | 15,52 | 123,30                  | 112,8                   | 7748       | 48363            | 48363        |
| 9306                    | 16,39 | 115,63                  | 106,8                   | 7908       | 49696            | 49696        |
| 9776                    | 18,02 | 110,48                  | 97,1                    | 8015       | 50972            | 50972        |
| 10058                   | 19,96 | 102,62                  | 87,7                    | 8179       | 52815            | 52815        |
| 9776                    | 21,94 | 90,71                   | 79,8                    | 8428       | 55548            | 55548        |
| 9870                    | 24,17 | 83,13                   | 72,4                    | 8585       | 57740            | 57740        |
| 10434                   | 26,58 | 79,93                   | 65,8                    | 8652       | 59139            | 59139        |
| 9588                    | 28,80 | 67,78                   | 60,8                    | 8905       | 62694            | 62694        |
| 10810                   | 30,92 | 71,18                   | 56,6                    | 8835       | 62446            | 62446        |
| 11186                   | 34,25 | 66,49                   | 51,1                    | 8932       | 64581            | 64581        |
| 11562                   | 37,66 | 62,51                   | 46,5                    | 9015       | 66599            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | $i$    | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | $Fr_1$<br>[N] | $Fr_2$<br>D-S-P [N] | $Fr_2$<br>C [N] |
|----------------|--------|----------------|----------------|---------------|---------------------|-----------------|
| 11938          | 40,65  | 59,79          | 43,0           | 9072          | 68159               | 65000           |
| 11280          | 45,09  | 50,93          | 38,8           | 9256          | 72405               | 65000           |
| 12220          | 51,00  | 48,79          | 34,3           | 9301          | 74583               | 65000           |
| 12220          | 53,63  | 46,39          | 32,6           | 9351          | 76188               | 65000           |
| 12220          | 58,97  | 42,20          | 29,7           | 9439          | 79289               | 65000           |
| 12220          | 69,78  | 35,66          | 25,1           | 9575          | 80000               | 65000           |
| 12220          | 76,72  | 32,43          | 22,8           | 9642          | 80000               | 65000           |
| 12220          | 87,54  | 28,42          | 20,0           | 9726          | 80000               | 65000           |
| 12220          | 96,25  | 25,85          | 18,2           | 9779          | 80000               | 65000           |
| 12220          | 103,93 | 23,94          | 16,8           | 9819          | 80000               | 65000           |
| 12220          | 114,27 | 21,77          | 15,3           | 9864          | 80000               | 65000           |
| 12220          | 126,29 | 19,70          | 13,9           | 9907          | 80000               | 65000           |
| 12220          | 138,85 | 17,92          | 12,6           | 9944          | 80000               | 65000           |
| 12220          | 154,83 | 16,07          | 11,3           | 9983          | 80000               | 65000           |

## IBA42

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 90                      | 7,62  | 1,82                    | 183,8                   | 373        | -                | 1814         |
| 90                      | 10,62 | 1,31                    | 131,8                   | 355        | -                | 2027         |
| 90                      | 12,95 | 1,07                    | 108,1                   | 406        | -                | 2165         |
| 90                      | 14,46 | 0,96                    | 96,8                    | 443        | -                | 2246         |
| 120                     | 16,47 | 1,12                    | 85,0                    | 579        | -                | 2346         |
| 120                     | 22,97 | 0,81                    | 60,9                    | 355        | -                | 2621         |
| 120                     | 28,00 | 0,66                    | 50,0                    | 406        | -                | 2800         |
| 120                     | 31,27 | 0,59                    | 44,8                    | 443        | -                | 2905         |
| 120                     | 33,78 | 0,55                    | 41,4                    | 458        | -                | 2981         |
| 120                     | 47,12 | 0,39                    | 29,7                    | 355        | -                | 3331         |
| 120                     | 57,43 | 0,32                    | 24,4                    | 406        | -                | 3558         |
| 110                     | 64,13 | 0,26                    | 21,8                    | 406        | -                | 3691         |
| 110                     | 78,17 | 0,22                    | 17,9                    | 406        | -                | 3943         |

## IBA52

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 160                     | 7,91  | 3,12                    | 176,9                   | 373        | -                | 1969         |
| 160                     | 9,46  | 2,61                    | 148,0                   | 414        | -                | 2090         |
| 160                     | 11,57 | 2,13                    | 121,0                   | 405        | -                | 2235         |
| 160                     | 14,63 | 1,69                    | 95,7                    | 392        | -                | 2416         |
| 200                     | 17,11 | 1,80                    | 81,8                    | 529        | -                | 2546         |
| 200                     | 20,46 | 1,51                    | 68,4                    | 414        | -                | 2702         |
| 200                     | 25,03 | 1,23                    | 55,9                    | 405        | -                | 2890         |
| 200                     | 31,63 | 0,98                    | 44,3                    | 392        | -                | 3124         |
| 200                     | 35,10 | 0,88                    | 39,9                    | 446        | -                | 3235         |
| 200                     | 41,97 | 0,74                    | 33,4                    | 414        | -                | 3433         |
| 220                     | 51,34 | 0,66                    | 27,3                    | 445        | -                | 3672         |
| 200                     | 64,87 | 0,48                    | 21,6                    | 356        | -                | 3970         |
| 200                     | 79,07 | 0,39                    | 17,7                    | 406        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 220                     | 73,70  | 0,49                    | 19,0                    | 472        | -                | 4000         |
| 220                     | 93,33  | 0,38                    | 15,0                    | 472        | -                | 4000         |
| 220                     | 111,61 | 0,32                    | 12,5                    | 472        | -                | 4000         |
| 220                     | 136,53 | 0,26                    | 10,2                    | 472        | -                | 4000         |
| 220                     | 172,53 | 0,21                    | 8,1                     | 472        | -                | 4000         |
| 220                     | 197,11 | 0,18                    | 7,1                     | 472        | -                | 4000         |
| 220                     | 249,08 | 0,14                    | 5,6                     | 472        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 220                     | 271,16 | 0,13                    | 5,2                     | 472        | -                | 4000         |
| 220                     | 342,65 | 0,10                    | 4,1                     | 472        | -                | 4000         |

## IBA72

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 350                     | 8,36  | 6,46                    | 167,5                   | 664        | 5079             | 2540         |
| 350                     | 10,06 | 5,37                    | 139,2                   | 685        | 5403             | 2701         |
| 350                     | 12,44 | 4,34                    | 112,5                   | 667        | 5800             | 2900         |
| 420                     | 14,91 | 4,35                    | 93,9                    | 826        | 6160             | 3080         |
| 420                     | 17,94 | 3,61                    | 78,0                    | 685        | 6552             | 3276         |
| 420                     | 22,19 | 2,92                    | 63,1                    | 667        | 7033             | 3517         |
| 420                     | 27,45 | 2,36                    | 51,0                    | 667        | 7550             | 3775         |
| 420                     | 33,04 | 1,96                    | 42,4                    | 685        | 8031             | 4016         |
| 400                     | 40,87 | 1,51                    | 34,2                    | 635        | 8621             | 4311         |
| 350                     | 45,64 | 1,18                    | 30,7                    | 646        | 8944             | 4472         |
| 350                     | 54,94 | 0,98                    | 25,5                    | 685        | 9515             | 4757         |
| 350                     | 67,96 | 0,79                    | 20,6                    | 667        | 10000            | 5107         |

## IBA73

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 450                     | 43,89  | 1,67                    | 31,9                    | 330        | 8828             | 4414         |
| 450                     | 52,83  | 1,39                    | 26,5                    | 411        | 9391             | 4696         |
| 450                     | 65,35  | 1,12                    | 21,4                    | 400        | 10000            | 5041         |
| 450                     | 80,83  | 0,91                    | 17,3                    | 400        | 10000            | 5411         |
| 450                     | 97,29  | 0,75                    | 14,4                    | 411        | 10000            | 5500         |
| 450                     | 120,34 | 0,61                    | 11,6                    | 400        | 10000            | 5500         |
| 450                     | 149,73 | 0,49                    | 9,3                     | 398        | 10000            | 5500         |
| 450                     | 180,23 | 0,41                    | 7,8                     | 411        | 10000            | 5500         |
| 450                     | 222,93 | 0,33                    | 6,3                     | 400        | 10000            | 5500         |
| 450                     | 260,20 | 0,28                    | 5,4                     | 424        | 10000            | 5500         |
| 450                     | 321,85 | 0,23                    | 4,3                     | 400        | 10000            | 5500         |
| 450                     | 357,95 | 0,20                    | 3,9                     | 445        | 10000            | 5500         |
| 450                     | 442,76 | 0,17                    | 3,2                     | 400        | 10000            | 5500         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|------|-------------------------|-------------------------|------------|------------------|--------------|
| 290                     | 5,71 | 8,27                    | 245,0                   | 314        | 7034             | 2010         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 340                     | 6,88   | 8,05                    | 203,5                   | 337        | 7335             | 2096         |
| 350                     | 7,32   | 7,79                    | 191,2                   | 365        | 7475             | 2136         |
| 460                     | 9,16   | 8,18                    | 152,8                   | 323        | 7673             | 2192         |
| 520                     | 10,26  | 8,25                    | 136,4                   | 315        | 7774             | 2221         |
| 540                     | 11,03  | 7,98                    | 127,0                   | 345        | 7927             | 2265         |
| 580                     | 12,35  | 7,65                    | 113,3                   | 380        | 8142             | 2326         |
| 590                     | 13,15  | 7,31                    | 106,5                   | 416        | 8322             | 2378         |
| 590                     | 15,18  | 6,33                    | 92,3                    | 519        | 8853             | 2529         |
| 600                     | 17,00  | 5,75                    | 82,3                    | 581        | 9248             | 2642         |
| 600                     | 22,39  | 4,36                    | 62,5                    | 728        | 10385            | 2967         |
| 600                     | 26,09  | 3,75                    | 53,7                    | 794        | 11063            | 3161         |
| 600                     | 28,03  | 3,49                    | 49,9                    | 821        | 11393            | 3255         |
| 600                     | 33,43  | 2,92                    | 41,9                    | 881        | 12000            | 3496         |
| 600                     | 38,58  | 2,53                    | 36,3                    | 922        | 12000            | 3703         |
| 600                     | 43,22  | 2,26                    | 32,4                    | 951        | 12000            | 3874         |
| 600                     | 50,81  | 1,92                    | 27,6                    | 987        | 12000            | 4129         |
| 600                     | 56,93  | 1,72                    | 24,6                    | 1009       | 12000            | 4316         |
| 600                     | 69,16  | 1,41                    | 20,2                    | 1041       | 12000            | 4654         |
| 600                     | 77,48  | 1,26                    | 18,1                    | 1057       | 12000            | 4861         |
| 600                     | 90,33  | 1,08                    | 15,5                    | 1076       | 12000            | 5154         |
| 600                     | 101,20 | 0,97                    | 13,8                    | 1089       | 12000            | 5380         |
| 600                     | 111,74 | 0,87                    | 12,5                    | 1098       | 12000            | 5585         |
| 600                     | 124,20 | 0,79                    | 11,3                    | 1108       | 12000            | 5811         |
| 600                     | 139,15 | 0,70                    | 10,1                    | 1116       | 12000            | 6062         |
| 600                     | 157,42 | 0,62                    | 8,9                     | 1125       | 12000            | 6346         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 500                     | 7,81  | 10,43                   | 179,3                   | 1685       | 11980            | 3423         |
| 600                     | 8,62  | 11,33                   | 162,4                   | 1571       | 12040            | 3440         |
| 650                     | 10,49 | 10,09                   | 133,4                   | 1728       | 12807            | 3659         |
| 750                     | 11,59 | 10,54                   | 120,8                   | 1671       | 12915            | 3690         |
| 810                     | 14,43 | 9,14                    | 97,0                    | 1847       | 13870            | 3963         |
| 850                     | 16,60 | 8,34                    | 84,4                    | 1948       | 14518            | 4148         |
| 850                     | 18,32 | 7,56                    | 76,4                    | 2047       | 15115            | 4319         |
| 850                     | 22,82 | 6,07                    | 61,4                    | 2235       | 16508            | 4717         |
| 850                     | 26,71 | 5,18                    | 52,4                    | 2346       | 17573            | 5021         |
| 850                     | 29,50 | 4,69                    | 47,5                    | 2408       | 18000            | 5220         |
| 850                     | 31,80 | 4,35                    | 44,0                    | 2451       | 18000            | 5376         |
| 850                     | 34,49 | 4,01                    | 40,6                    | 2494       | 18000            | 5549         |
| 850                     | 39,60 | 3,50                    | 35,4                    | 2500       | 18000            | 5853         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 850                     | 42,95  | 3,22                    | 32,6                    | 2500       | 18000            | 6039         |
| 850                     | 45,44  | 3,05                    | 30,8                    | 2500       | 18000            | 6171         |
| 850                     | 51,19  | 2,70                    | 27,4                    | 2500       | 18000            | 6458         |
| 850                     | 55,52  | 2,49                    | 25,2                    | 2500       | 18000            | 6660         |
| 850                     | 59,96  | 2,31                    | 23,4                    | 2500       | 18000            | 6856         |
| 850                     | 63,74  | 2,17                    | 22,0                    | 2500       | 18000            | 7016         |
| 850                     | 69,14  | 2,00                    | 20,2                    | 2500       | 18000            | 7234         |
| 850                     | 73,14  | 1,89                    | 19,1                    | 2500       | 18000            | 7388         |
| 850                     | 80,76  | 1,71                    | 17,3                    | 2500       | 18000            | 7666         |
| 850                     | 92,19  | 1,50                    | 15,2                    | 2500       | 18000            | 8052         |
| 850                     | 100,57 | 1,38                    | 13,9                    | 2500       | 18000            | 8315         |
| 850                     | 105,29 | 1,32                    | 13,3                    | 2500       | 18000            | 8457         |
| 850                     | 116,25 | 1,19                    | 12,0                    | 2500       | 18000            | 8771         |
| 850                     | 126,76 | 1,09                    | 11,0                    | 2500       | 18000            | 9053         |
| 850                     | 144,77 | 0,96                    | 9,7                     | 2500       | 18000            | 9503         |

## IB103

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 800                     | 8,13  | 16,03                   | 172,3                   | 1078       | 14868            | 4248         |
| 900                     | 8,97  | 16,35                   | 156,1                   | 1041       | 15147            | 4328         |
| 1000                    | 10,92 | 14,92                   | 128,2                   | 1211       | 16052            | 4586         |
| 1000                    | 12,05 | 13,52                   | 116,2                   | 1377       | 16676            | 4765         |
| 1200                    | 14,99 | 13,04                   | 93,4                    | 1433       | 17560            | 5017         |
| 1400                    | 17,27 | 13,20                   | 81,1                    | 1414       | 17992            | 5141         |
| 1400                    | 19,06 | 11,97                   | 73,5                    | 1561       | 18718            | 5348         |
| 1400                    | 23,70 | 9,62                    | 59,1                    | 1839       | 20415            | 5833         |
| 1500                    | 26,51 | 9,22                    | 52,8                    | 1887       | 21050            | 6014         |
| 1600                    | 30,55 | 8,53                    | 45,8                    | 1969       | 21978            | 6279         |
| 1700                    | 33,07 | 8,37                    | 42,3                    | 1987       | 22000            | 6398         |
| 1700                    | 35,87 | 7,72                    | 39,0                    | 2065       | 22000            | 6610         |
| 1700                    | 41,12 | 6,73                    | 34,0                    | 2182       | 22000            | 6979         |
| 1700                    | 44,61 | 6,21                    | 31,4                    | 2244       | 22000            | 7207         |
| 1700                    | 47,28 | 5,86                    | 29,6                    | 2286       | 22000            | 7374         |
| 1700                    | 50,24 | 5,51                    | 27,9                    | 2327       | 22000            | 7552         |
| 1700                    | 53,02 | 5,22                    | 26,4                    | 2361       | 22000            | 7712         |
| 1700                    | 58,50 | 4,73                    | 23,9                    | 2419       | 22000            | 8013         |
| 1700                    | 64,89 | 4,27                    | 21,6                    | 2474       | 22000            | 8340         |
| 1700                    | 68,58 | 4,04                    | 20,4                    | 2502       | 22000            | 8519         |
| 1700                    | 72,76 | 3,81                    | 19,2                    | 2529       | 22000            | 8715         |
| 1700                    | 78,92 | 3,51                    | 17,7                    | 2564       | 22000            | 8990         |
| 1800                    | 83,66 | 3,50                    | 16,7                    | 2565       | 22000            | 9109         |

## IB103

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1800                    | 92,31  | 3,18                    | 15,2                    | 2604       | 22000            | 9459         |
| 1800                    | 105,44 | 2,78                    | 13,3                    | 2651       | 22000            | 9950         |
| 1800                    | 114,80 | 2,55                    | 12,2                    | 2678       | 22000            | 10275        |
| 1800                    | 120,42 | 2,43                    | 11,6                    | 2692       | 22000            | 10462        |
| 1800                    | 132,87 | 2,21                    | 10,5                    | 2719       | 22000            | 10856        |
| 1800                    | 144,69 | 2,03                    | 9,7                     | 2740       | 22000            | 11208        |
| 1800                    | 165,25 | 1,77                    | 8,5                     | 2770       | 22000            | 11776        |

## IB123

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1500                    | 7,97   | 30,67                   | 175,8                   | 2561       | 17308            | 4945         |
| 1800                    | 9,62   | 30,48                   | 145,5                   | 2570       | 17484            | 4995         |
| 2000                    | 10,33  | 31,52                   | 135,5                   | 2521       | 17181            | 4909         |
| 2000                    | 12,48  | 26,10                   | 112,2                   | 2775       | 18875            | 5393         |
| 2100                    | 13,84  | 24,71                   | 101,1                   | 2841       | 19393            | 5541         |
| 2100                    | 15,38  | 22,24                   | 91,0                    | 2957       | 20420            | 5834         |
| 2200                    | 18,58  | 19,29                   | 75,4                    | 3095       | 21892            | 6255         |
| 2500                    | 20,61  | 19,76                   | 67,9                    | 3073       | 21629            | 6180         |
| 2800                    | 22,78  | 20,02                   | 61,5                    | 3061       | 21364            | 6104         |
| 2800                    | 25,89  | 17,62                   | 54,1                    | 3174       | 22840            | 6526         |
| 2800                    | 27,51  | 16,58                   | 50,9                    | 3223       | 23562            | 6732         |
| 2800                    | 30,79  | 14,81                   | 45,5                    | 3306       | 24944            | 7127         |
| 2800                    | 31,26  | 14,59                   | 44,8                    | 3316       | 25133            | 7181         |
| 2800                    | 34,68  | 13,15                   | 40,4                    | 3384       | 26458            | 7559         |
| 2800                    | 40,53  | 11,25                   | 34,5                    | 3473       | 28532            | 8152         |
| 3000                    | 44,89  | 10,89                   | 31,2                    | 3490       | 29033            | 8295         |
| 3200                    | 49,80  | 10,47                   | 28,1                    | 3510       | 29606            | 8459         |
| 3200                    | 54,30  | 9,60                    | 25,8                    | 3550       | 30000            | 8825         |
| 3200                    | 59,36  | 8,78                    | 23,6                    | 3589       | 30000            | 9214         |
| 3300                    | 62,59  | 8,59                    | 22,4                    | 3598       | 30000            | 9319         |
| 3300                    | 69,43  | 7,74                    | 20,2                    | 3638       | 30000            | 9795         |
| 3500                    | 74,42  | 7,66                    | 18,8                    | 3641       | 30000            | 9859         |
| 3500                    | 80,04  | 7,12                    | 17,5                    | 3667       | 30000            | 10211        |
| 3500                    | 89,87  | 6,34                    | 15,6                    | 3703       | 30000            | 10788        |
| 3500                    | 99,70  | 5,72                    | 14,0                    | 3733       | 30000            | 11324        |
| 3500                    | 106,65 | 5,35                    | 13,1                    | 3750       | 30000            | 11682        |
| 3500                    | 119,60 | 4,77                    | 11,7                    | 3777       | 30000            | 12309        |
| 3500                    | 129,96 | 4,39                    | 10,8                    | 3795       | 30000            | 12780        |
| 3500                    | 144,43 | 3,95                    | 9,7                     | 3816       | 30000            | 13395        |
| 3500                    | 160,23 | 3,56                    | 8,7                     | 3834       | 30000            | 14022        |
| 3500                    | 180,40 | 3,16                    | 7,8                     | 3853       | 30000            | 14766        |



## IB143

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 3000                    | 10,84  | 45,08                   | 129,2                   | 2299       | 15530            | 15530        |
| 3100                    | 11,87  | 42,55                   | 118,0                   | 2395       | 15973            | 15973        |
| 3100                    | 14,49  | 34,86                   | 96,7                    | 2685       | 17731            | 17731        |
| 3200                    | 17,04  | 30,59                   | 82,2                    | 2847       | 18933            | 18933        |
| 3600                    | 18,66  | 31,43                   | 75,0                    | 2815       | 18542            | 18542        |
| 4000                    | 21,00  | 31,03                   | 66,7                    | 2830       | 18460            | 18460        |
| 4400                    | 22,77  | 31,47                   | 61,5                    | 2813       | 18031            | 18031        |
| 4600                    | 25,63  | 29,24                   | 54,6                    | 2898       | 18668            | 18668        |
| 4600                    | 27,44  | 27,30                   | 51,0                    | 2971       | 19429            | 19429        |
| 4700                    | 30,05  | 25,48                   | 46,6                    | 3040       | 20146            | 20146        |
| 4700                    | 33,01  | 23,19                   | 42,4                    | 3126       | 21254            | 21254        |
| 4800                    | 36,67  | 21,32                   | 38,2                    | 3197       | 22216            | 22216        |
| 4800                    | 40,29  | 19,41                   | 34,8                    | 3269       | 23399            | 23399        |
| 4800                    | 44,16  | 17,70                   | 31,7                    | 3334       | 24589            | 24589        |
| 5000                    | 48,35  | 16,84                   | 28,9                    | 3366       | 25162            | 25162        |
| 5000                    | 53,16  | 15,32                   | 26,3                    | 3424       | 26469            | 26469        |
| 5000                    | 54,63  | 14,91                   | 25,6                    | 3439       | 26852            | 26852        |
| 5000                    | 59,02  | 13,80                   | 23,7                    | 3481       | 27958            | 27958        |
| 5000                    | 64,88  | 12,55                   | 21,6                    | 3528       | 29352            | 29352        |
| 5000                    | 70,43  | 11,56                   | 19,9                    | 3566       | 30597            | 30597        |
| 5000                    | 77,12  | 10,56                   | 18,1                    | 3603       | 32010            | 32010        |
| 5000                    | 85,54  | 9,52                    | 16,4                    | 3643       | 33680            | 33680        |
| 5000                    | 94,13  | 8,65                    | 14,9                    | 3675       | 35271            | 35271        |
| 5000                    | 105,83 | 7,70                    | 13,2                    | 3712       | 37290            | 37290        |
| 5000                    | 111,94 | 7,28                    | 12,5                    | 3728       | 38286            | 38286        |
| 5000                    | 124,62 | 6,54                    | 11,2                    | 3755       | 40000            | 40000        |
| 5000                    | 136,44 | 5,97                    | 10,3                    | 3777       | 40000            | 40000        |
| 5000                    | 149,59 | 5,44                    | 9,4                     | 3797       | 40000            | 40000        |
| 5000                    | 166,53 | 4,89                    | 8,4                     | 3818       | 40000            | 40000        |
| 5000                    | 187,24 | 4,35                    | 7,5                     | 3838       | 40000            | 40000        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 4500                    | 10,49 | 69,86                   | 133,4                   | 7032       | 32656            | 32656        |
| 4500                    | 12,64 | 57,98                   | 110,7                   | 7516       | 35147            | 35147        |
| 5000                    | 14,01 | 58,13                   | 99,9                    | 7509       | 35853            | 35853        |
| 5000                    | 15,40 | 52,89                   | 90,9                    | 7723       | 37222            | 37222        |
| 6000                    | 18,56 | 52,67                   | 75,5                    | 7732       | 38582            | 38582        |
| 6500                    | 20,56 | 51,49                   | 68,1                    | 7780       | 39483            | 39483        |
| 6700                    | 23,86 | 45,74                   | 58,7                    | 8014       | 41653            | 41653        |
| 6800                    | 25,19 | 43,98                   | 55,6                    | 8085       | 42436            | 42436        |

## IB153

| $Mn_2$<br>[Nm] | i      | $Pn_1$<br>[kW] | n2<br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|----------------|--------|----------------|-------------|------------|------------------|--------------|
| 8000           | 28,23  | 46,16          | 49,6        | 7997       | 42686            | 42686        |
| 8000           | 30,35  | 42,94          | 46,1        | 8128       | 44001            | 44001        |
| 8000           | 33,63  | 38,74          | 41,6        | 8298       | 45923            | 45923        |
| 8000           | 35,02  | 37,21          | 40,0        | 8361       | 46696            | 46696        |
| 8000           | 38,81  | 33,58          | 36,1        | 8509       | 48712            | 48712        |
| 8000           | 42,30  | 30,81          | 33,1        | 8621       | 50453            | 50453        |
| 8000           | 47,53  | 27,41          | 29,4        | 8759       | 52896            | 52896        |
| 8000           | 50,56  | 25,77          | 27,7        | 8826       | 54227            | 54227        |
| 8000           | 54,64  | 23,85          | 25,6        | 8904       | 55937            | 55937        |
| 8000           | 57,27  | 22,75          | 24,4        | 8949       | 56996            | 56996        |
| 8000           | 60,92  | 21,39          | 23,0        | 9005       | 58412            | 58412        |
| 8000           | 63,47  | 20,53          | 22,1        | 9039       | 59367            | 59367        |
| 8000           | 71,15  | 18,32          | 19,7        | 9130       | 62097            | 62097        |
| 8000           | 77,22  | 16,87          | 18,1        | 9188       | 64121            | 64121        |
| 8000           | 83,89  | 15,53          | 16,7        | 9243       | 65000            | 65000        |
| 8000           | 87,65  | 14,87          | 16,0        | 9270       | 65000            | 65000        |
| 8000           | 93,05  | 14,00          | 15,1        | 9305       | 65000            | 65000        |
| 8000           | 103,12 | 12,64          | 13,6        | 9361       | 65000            | 65000        |
| 8000           | 123,88 | 10,52          | 11,3        | 9447       | 65000            | 65000        |
| 8000           | 134,27 | 9,71           | 10,4        | 9480       | 65000            | 65000        |
| 8000           | 149,26 | 8,73           | 9,4         | 9520       | 65000            | 65000        |
| 8000           | 165,42 | 7,88           | 8,5         | 9554       | 65000            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | i     | $Pn_1$<br>[kW] | n2<br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|----------------|-------|----------------|-------------|------------|------------------|--------------|
| 6800           | 8,89  | 124,57         | 157,4       | 7073       | 46145            | 46145        |
| 7900           | 10,58 | 121,68         | 132,4       | 7148       | 47640            | 47640        |
| 7700           | 11,87 | 105,67         | 118,0       | 7565       | 50376            | 50376        |
| 8800           | 12,81 | 111,91         | 109,3       | 7403       | 50078            | 50078        |
| 9600           | 14,08 | 111,03         | 99,4        | 7426       | 50762            | 50762        |
| 10000          | 15,52 | 104,94         | 90,2        | 7584       | 52265            | 52265        |
| 9900           | 16,39 | 98,41          | 85,4        | 7754       | 53698            | 53698        |
| 10400          | 18,02 | 94,03          | 77,7        | 7869       | 55082            | 55082        |
| 10700          | 19,96 | 87,33          | 70,2        | 8043       | 57072            | 57072        |
| 10400          | 21,94 | 77,20          | 63,8        | 8307       | 60008            | 60008        |
| 10500          | 24,17 | 70,75          | 57,9        | 8475       | 62369            | 62369        |
| 11100          | 26,58 | 68,03          | 52,7        | 8546       | 63887            | 63887        |
| 10200          | 28,80 | 57,69          | 48,6        | 8815       | 67696            | 65000        |
| 11500          | 30,92 | 60,58          | 45,3        | 8740       | 67456            | 65000        |
| 11900          | 34,25 | 56,59          | 40,9        | 8844       | 69762            | 65000        |
| 12300          | 37,66 | 53,20          | 37,2        | 8932       | 71943            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | $i$    | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | $Fr_1$<br>[N] | $Fr_2$<br>D-S-P [N] | $Fr_2$<br>C [N] |
|----------------|--------|----------------|----------------|---------------|---------------------|-----------------|
| 12700          | 40,65  | 50,89          | 34,4           | 8992          | 73630               | 65000           |
| 12000          | 45,09  | 43,35          | 31,1           | 9189          | 78186               | 65000           |
| 13000          | 51,00  | 41,52          | 27,4           | 9236          | 80000               | 65000           |
| 13000          | 53,63  | 39,48          | 26,1           | 9289          | 80000               | 65000           |
| 13000          | 58,97  | 35,91          | 23,7           | 9382          | 80000               | 65000           |
| 13000          | 69,78  | 30,35          | 20,1           | 9527          | 80000               | 65000           |
| 13000          | 76,72  | 27,60          | 18,2           | 9599          | 80000               | 65000           |
| 13000          | 87,54  | 24,19          | 16,0           | 9688          | 80000               | 65000           |
| 13000          | 96,25  | 22,00          | 14,6           | 9745          | 80000               | 65000           |
| 13000          | 103,93 | 20,37          | 13,5           | 9787          | 80000               | 65000           |
| 13000          | 114,27 | 18,53          | 12,2           | 9835          | 80000               | 65000           |
| 13000          | 126,29 | 16,77          | 11,1           | 9881          | 80000               | 65000           |
| 13000          | 138,85 | 15,25          | 10,1           | 9921          | 80000               | 65000           |
| 13000          | 154,83 | 13,68          | 9,0            | 9962          | 80000               | 65000           |

## IBA42

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 92                      | 7,62  | 1,51                    | 149,7                   | 373        | -                | 1943         |
| 92                      | 10,62 | 1,08                    | 107,3                   | 355        | -                | 2171         |
| 92                      | 12,95 | 0,89                    | 88,0                    | 406        | -                | 2319         |
| 92                      | 14,46 | 0,79                    | 78,8                    | 443        | -                | 2406         |
| 123                     | 16,47 | 0,93                    | 69,2                    | 579        | -                | 2512         |
| 123                     | 22,97 | 0,67                    | 49,6                    | 355        | -                | 2807         |
| 123                     | 28,00 | 0,55                    | 40,7                    | 406        | -                | 2998         |
| 123                     | 31,27 | 0,49                    | 36,5                    | 443        | -                | 3111         |
| 123                     | 33,78 | 0,45                    | 33,8                    | 458        | -                | 3192         |
| 123                     | 47,12 | 0,32                    | 24,2                    | 355        | -                | 3567         |
| 123                     | 57,43 | 0,27                    | 19,9                    | 406        | -                | 3810         |
| 113                     | 64,13 | 0,22                    | 17,8                    | 406        | -                | 3952         |
| 113                     | 78,17 | 0,18                    | 14,6                    | 406        | -                | 4000         |

## IBA52

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 164                     | 7,91  | 2,58                    | 144,1                   | 373        | -                | 2108         |
| 164                     | 9,46  | 2,16                    | 120,5                   | 414        | -                | 2238         |
| 164                     | 11,57 | 1,76                    | 98,5                    | 405        | -                | 2393         |
| 164                     | 14,63 | 1,40                    | 77,9                    | 392        | -                | 2587         |
| 205                     | 17,11 | 1,49                    | 66,6                    | 529        | -                | 2726         |
| 205                     | 20,46 | 1,25                    | 55,7                    | 414        | -                | 2894         |
| 205                     | 25,03 | 1,02                    | 45,5                    | 405        | -                | 3095         |
| 205                     | 31,63 | 0,81                    | 36,0                    | 392        | -                | 3346         |
| 205                     | 35,10 | 0,73                    | 32,5                    | 446        | -                | 3464         |
| 205                     | 41,97 | 0,61                    | 27,2                    | 414        | -                | 3677         |
| 226                     | 51,34 | 0,55                    | 22,2                    | 445        | -                | 3932         |
| 205                     | 64,87 | 0,39                    | 17,6                    | 356        | -                | 4000         |
| 205                     | 79,07 | 0,32                    | 14,4                    | 406        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 226                     | 73,70  | 0,40                    | 15,5                    | 472        | -                | 4000         |
| 226                     | 93,33  | 0,32                    | 12,2                    | 472        | -                | 4000         |
| 226                     | 111,61 | 0,27                    | 10,2                    | 472        | -                | 4000         |
| 226                     | 136,53 | 0,22                    | 8,3                     | 472        | -                | 4000         |
| 226                     | 172,53 | 0,17                    | 6,6                     | 472        | -                | 4000         |
| 226                     | 197,11 | 0,15                    | 5,8                     | 472        | -                | 4000         |
| 226                     | 249,08 | 0,12                    | 4,6                     | 472        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 226                     | 271,16 | 0,11                    | 4,2                     | 472        | -                | 4000         |
| 226                     | 342,65 | 0,09                    | 3,3                     | 472        | -                | 4000         |

## IBA72

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 359                     | 8,36  | 5,34                    | 136,4                   | 664        | 5439             | 2720         |
| 359                     | 10,06 | 4,44                    | 113,3                   | 685        | 5786             | 2893         |
| 359                     | 12,44 | 3,59                    | 91,6                    | 667        | 6211             | 3105         |
| 431                     | 14,91 | 3,59                    | 76,5                    | 826        | 6596             | 3298         |
| 431                     | 17,94 | 2,98                    | 63,5                    | 685        | 7017             | 3508         |
| 431                     | 22,19 | 2,41                    | 51,4                    | 667        | 7532             | 3766         |
| 431                     | 27,45 | 1,95                    | 41,5                    | 667        | 8085             | 4043         |
| 431                     | 33,04 | 1,62                    | 34,5                    | 685        | 8600             | 4300         |
| 410                     | 40,87 | 1,25                    | 27,9                    | 635        | 9232             | 4616         |
| 359                     | 45,64 | 0,98                    | 25,0                    | 646        | 9578             | 4789         |
| 359                     | 54,94 | 0,81                    | 20,8                    | 685        | 10000            | 5095         |
| 359                     | 67,96 | 0,66                    | 16,8                    | 667        | 10000            | 5469         |

## IBA73

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 461                     | 43,89  | 1,38                    | 26,0                    | 330        | 9454             | 4727         |
| 461                     | 52,83  | 1,15                    | 21,6                    | 411        | 10000            | 5028         |
| 461                     | 65,35  | 0,93                    | 17,4                    | 400        | 10000            | 5398         |
| 461                     | 80,83  | 0,75                    | 14,1                    | 400        | 10000            | 5500         |
| 461                     | 97,29  | 0,62                    | 11,7                    | 411        | 10000            | 5500         |
| 461                     | 120,34 | 0,50                    | 9,5                     | 400        | 10000            | 5500         |
| 461                     | 149,73 | 0,40                    | 7,6                     | 398        | 10000            | 5500         |
| 461                     | 180,23 | 0,34                    | 6,3                     | 411        | 10000            | 5500         |
| 461                     | 222,93 | 0,27                    | 5,1                     | 400        | 10000            | 5500         |
| 461                     | 260,20 | 0,23                    | 4,4                     | 424        | 10000            | 5500         |
| 461                     | 321,85 | 0,19                    | 3,5                     | 400        | 10000            | 5500         |
| 461                     | 357,95 | 0,17                    | 3,2                     | 445        | 10000            | 5500         |
| 461                     | 442,76 | 0,14                    | 2,6                     | 400        | 10000            | 5500         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|------|-------------------------|-------------------------|------------|------------------|--------------|
| 297                     | 5,71 | 6,83                    | 199,5                   | 292        | 7587             | 2168         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 349                     | 6,88   | 6,65                    | 165,7                   | 316        | 7919             | 2263         |
| 359                     | 7,32   | 6,43                    | 155,7                   | 344        | 8070             | 2306         |
| 472                     | 9,16   | 6,76                    | 124,4                   | 301        | 8305             | 2373         |
| 533                     | 10,26  | 6,82                    | 111,1                   | 294        | 8426             | 2407         |
| 554                     | 11,03  | 6,59                    | 103,4                   | 324        | 8593             | 2455         |
| 595                     | 12,35  | 6,32                    | 92,3                    | 359        | 8832             | 2523         |
| 605                     | 13,15  | 6,04                    | 86,7                    | 396        | 9025             | 2579         |
| 605                     | 15,18  | 5,23                    | 75,1                    | 502        | 9594             | 2741         |
| 615                     | 17,00  | 4,75                    | 67,0                    | 566        | 10019            | 2863         |
| 615                     | 22,39  | 3,61                    | 50,9                    | 716        | 11236            | 3210         |
| 615                     | 26,09  | 3,10                    | 43,7                    | 784        | 11961            | 3417         |
| 615                     | 28,03  | 2,88                    | 40,7                    | 812        | 12000            | 3518         |
| 615                     | 33,43  | 2,42                    | 34,1                    | 873        | 12000            | 3776         |
| 615                     | 38,58  | 2,09                    | 29,6                    | 915        | 12000            | 3997         |
| 615                     | 43,22  | 1,87                    | 26,4                    | 945        | 12000            | 4181         |
| 615                     | 50,81  | 1,59                    | 22,4                    | 982        | 12000            | 4453         |
| 615                     | 56,93  | 1,42                    | 20,0                    | 1004       | 12000            | 4654         |
| 615                     | 69,16  | 1,17                    | 16,5                    | 1037       | 12000            | 5015         |
| 615                     | 77,48  | 1,04                    | 14,7                    | 1054       | 12000            | 5237         |
| 615                     | 90,33  | 0,89                    | 12,6                    | 1073       | 12000            | 5550         |
| 615                     | 101,20 | 0,80                    | 11,3                    | 1086       | 12000            | 5793         |
| 615                     | 111,74 | 0,72                    | 10,2                    | 1096       | 12000            | 6012         |
| 615                     | 124,20 | 0,65                    | 9,2                     | 1105       | 12000            | 6253         |
| 615                     | 139,15 | 0,58                    | 8,2                     | 1115       | 12000            | 6522         |
| 615                     | 157,42 | 0,51                    | 7,2                     | 1123       | 12000            | 6826         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 513                     | 7,81  | 8,62                    | 146,0                   | 1652       | 12911            | 3689         |
| 615                     | 8,62  | 9,37                    | 132,2                   | 1535       | 12995            | 3713         |
| 666                     | 10,49 | 8,34                    | 108,6                   | 1696       | 13824            | 3950         |
| 769                     | 11,59 | 8,71                    | 98,4                    | 1638       | 13958            | 3988         |
| 830                     | 14,43 | 7,56                    | 79,0                    | 1818       | 14991            | 4283         |
| 871                     | 16,60 | 6,89                    | 68,7                    | 1922       | 15692            | 4483         |
| 871                     | 18,32 | 6,24                    | 62,2                    | 2023       | 16331            | 4666         |
| 871                     | 22,82 | 5,01                    | 50,0                    | 2216       | 17821            | 5092         |
| 871                     | 26,71 | 4,28                    | 42,7                    | 2330       | 18000            | 5417         |
| 871                     | 29,50 | 3,88                    | 38,6                    | 2393       | 18000            | 5631         |
| 871                     | 31,80 | 3,60                    | 35,9                    | 2437       | 18000            | 5798         |
| 871                     | 34,49 | 3,32                    | 33,0                    | 2481       | 18000            | 5983         |
| 871                     | 39,60 | 2,89                    | 28,8                    | 2500       | 18000            | 6308         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 871                     | 42,95  | 2,66                    | 26,5                    | 2500       | 18000            | 6507         |
| 871                     | 45,44  | 2,52                    | 25,1                    | 2500       | 18000            | 6648         |
| 871                     | 51,19  | 2,24                    | 22,3                    | 2500       | 18000            | 6955         |
| 871                     | 55,52  | 2,06                    | 20,5                    | 2500       | 18000            | 7172         |
| 871                     | 59,96  | 1,91                    | 19,0                    | 2500       | 18000            | 7382         |
| 871                     | 63,74  | 1,79                    | 17,9                    | 2500       | 18000            | 7553         |
| 871                     | 69,14  | 1,65                    | 16,5                    | 2500       | 18000            | 7786         |
| 871                     | 73,14  | 1,56                    | 15,6                    | 2500       | 18000            | 7950         |
| 871                     | 80,76  | 1,42                    | 14,1                    | 2500       | 18000            | 8248         |
| 871                     | 92,19  | 1,24                    | 12,4                    | 2500       | 18000            | 8661         |
| 871                     | 100,57 | 1,14                    | 11,3                    | 2500       | 18000            | 8943         |
| 871                     | 105,29 | 1,09                    | 10,8                    | 2500       | 18000            | 9095         |
| 871                     | 116,25 | 0,98                    | 9,8                     | 2500       | 18000            | 9430         |
| 871                     | 126,76 | 0,90                    | 9,0                     | 2500       | 18000            | 9733         |
| 871                     | 144,77 | 0,79                    | 7,9                     | 2500       | 18000            | 10214        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 820                     | 8,13  | 13,25                   | 140,3                   | 1031       | 16015            | 4576         |
| 923                     | 8,97  | 13,51                   | 127,1                   | 992        | 16327            | 4665         |
| 1025                    | 10,92 | 12,33                   | 104,4                   | 1167       | 17307            | 4945         |
| 1025                    | 12,05 | 11,17                   | 94,6                    | 1337       | 17976            | 5136         |
| 1230                    | 14,99 | 10,78                   | 76,1                    | 1394       | 18947            | 5414         |
| 1435                    | 17,27 | 10,91                   | 66,0                    | 1375       | 19436            | 5553         |
| 1435                    | 19,06 | 9,89                    | 59,8                    | 1525       | 20213            | 5775         |
| 1435                    | 23,70 | 7,95                    | 48,1                    | 1810       | 22000            | 6294         |
| 1538                    | 26,51 | 7,62                    | 43,0                    | 1860       | 22000            | 6492         |
| 1640                    | 30,55 | 7,05                    | 37,3                    | 1943       | 22000            | 6779         |
| 1743                    | 33,07 | 6,92                    | 34,5                    | 1962       | 22000            | 6910         |
| 1743                    | 35,87 | 6,38                    | 31,8                    | 2042       | 22000            | 7137         |
| 1743                    | 41,12 | 5,56                    | 27,7                    | 2162       | 22000            | 7532         |
| 1743                    | 44,61 | 5,13                    | 25,6                    | 2226       | 22000            | 7776         |
| 1743                    | 47,28 | 4,84                    | 24,1                    | 2268       | 22000            | 7955         |
| 1743                    | 50,24 | 4,55                    | 22,7                    | 2310       | 22000            | 8144         |
| 1743                    | 53,02 | 4,32                    | 21,5                    | 2345       | 22000            | 8316         |
| 1743                    | 58,50 | 3,91                    | 19,5                    | 2405       | 22000            | 8638         |
| 1743                    | 64,89 | 3,53                    | 17,6                    | 2462       | 22000            | 8988         |
| 1743                    | 68,58 | 3,34                    | 16,6                    | 2490       | 22000            | 9180         |
| 1743                    | 72,76 | 3,15                    | 15,7                    | 2518       | 22000            | 9389         |
| 1743                    | 78,92 | 2,90                    | 14,4                    | 2554       | 22000            | 9683         |
| 1845                    | 83,66 | 2,90                    | 13,6                    | 2554       | 22000            | 9815         |

## IB103

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1845                    | 92,31  | 2,62                    | 12,3                    | 2594       | 22000            | 10189        |
| 1845                    | 105,44 | 2,30                    | 10,8                    | 2642       | 22000            | 10714        |
| 1845                    | 114,80 | 2,11                    | 9,9                     | 2670       | 22000            | 11062        |
| 1845                    | 120,42 | 2,01                    | 9,5                     | 2685       | 22000            | 11262        |
| 1845                    | 132,87 | 1,82                    | 8,6                     | 2712       | 22000            | 11684        |
| 1845                    | 144,69 | 1,67                    | 7,9                     | 2734       | 22000            | 12061        |
| 1845                    | 165,25 | 1,47                    | 6,9                     | 2765       | 22000            | 12669        |

## IB123

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1538                    | 7,97   | 25,35                   | 143,1                   | 2525       | 18833            | 5381         |
| 1845                    | 9,62   | 25,19                   | 118,5                   | 2534       | 19084            | 5452         |
| 2050                    | 10,33  | 26,05                   | 110,3                   | 2484       | 18801            | 5372         |
| 2050                    | 12,48  | 21,57                   | 91,3                    | 2745       | 20614            | 5890         |
| 2153                    | 13,84  | 20,42                   | 82,3                    | 2812       | 21189            | 6054         |
| 2153                    | 15,38  | 18,38                   | 74,1                    | 2931       | 22289            | 6368         |
| 2255                    | 18,58  | 15,94                   | 61,4                    | 3073       | 23884            | 6824         |
| 2563                    | 20,61  | 16,33                   | 55,3                    | 3050       | 23665            | 6761         |
| 2870                    | 22,78  | 16,54                   | 50,0                    | 3037       | 23443            | 6698         |
| 2870                    | 25,89  | 14,56                   | 44,0                    | 3153       | 25023            | 7149         |
| 2870                    | 27,51  | 13,70                   | 41,4                    | 3203       | 25796            | 7370         |
| 2870                    | 30,79  | 12,24                   | 37,0                    | 3288       | 27274            | 7793         |
| 2870                    | 31,26  | 12,06                   | 36,5                    | 3299       | 27477            | 7851         |
| 2870                    | 34,68  | 10,87                   | 32,9                    | 3368       | 28895            | 8256         |
| 2870                    | 40,53  | 9,30                    | 28,1                    | 3459       | 30000            | 8890         |
| 3075                    | 44,89  | 9,00                    | 25,4                    | 3477       | 30000            | 9055         |
| 3280                    | 49,80  | 8,65                    | 22,9                    | 3497       | 30000            | 9242         |
| 3280                    | 54,30  | 7,93                    | 21,0                    | 3539       | 30000            | 9634         |
| 3280                    | 59,36  | 7,26                    | 19,2                    | 3578       | 30000            | 10050        |
| 3383                    | 62,59  | 7,10                    | 18,2                    | 3588       | 30000            | 10168        |
| 3383                    | 69,43  | 6,40                    | 16,4                    | 3628       | 30000            | 10678        |
| 3588                    | 74,42  | 6,33                    | 15,3                    | 3632       | 30000            | 10758        |
| 3588                    | 80,04  | 5,89                    | 14,2                    | 3658       | 30000            | 11135        |
| 3588                    | 89,87  | 5,24                    | 12,7                    | 3696       | 30000            | 11752        |
| 3588                    | 99,70  | 4,73                    | 11,4                    | 3726       | 30000            | 12326        |
| 3588                    | 106,65 | 4,42                    | 10,7                    | 3744       | 30000            | 12709        |
| 3588                    | 119,60 | 3,94                    | 9,5                     | 3772       | 30000            | 13380        |
| 3588                    | 129,96 | 3,63                    | 8,8                     | 3790       | 30000            | 13884        |
| 3588                    | 144,43 | 3,26                    | 7,9                     | 3811       | 30000            | 14543        |
| 3588                    | 160,23 | 2,94                    | 7,1                     | 3830       | 30000            | 15214        |
| 3588                    | 180,40 | 2,61                    | 6,3                     | 3849       | 30000            | 16009        |



## IB143

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 3075                    | 10,84  | 37,25                   | 105,2                   | 2257       | 17051            | 17051        |
| 3178                    | 11,87  | 35,16                   | 96,1                    | 2355       | 17540            | 17540        |
| 3178                    | 14,49  | 28,81                   | 78,7                    | 2653       | 19421            | 19421        |
| 3280                    | 17,04  | 25,28                   | 66,9                    | 2818       | 20722            | 20722        |
| 3690                    | 18,66  | 25,97                   | 61,1                    | 2785       | 20361            | 20361        |
| 4100                    | 21,00  | 25,64                   | 54,3                    | 2801       | 20331            | 20331        |
| 4510                    | 22,77  | 26,01                   | 50,1                    | 2784       | 19930            | 19930        |
| 4715                    | 25,63  | 24,16                   | 44,5                    | 2870       | 20640            | 20640        |
| 4715                    | 27,44  | 22,56                   | 41,5                    | 2945       | 21455            | 21455        |
| 4818                    | 30,05  | 21,06                   | 37,9                    | 3016       | 22236            | 22236        |
| 4818                    | 33,01  | 19,17                   | 34,5                    | 3104       | 23422            | 23422        |
| 4920                    | 36,67  | 17,62                   | 31,1                    | 3177       | 24465            | 24465        |
| 4920                    | 40,29  | 16,04                   | 28,3                    | 3251       | 25732            | 25732        |
| 4920                    | 44,16  | 14,63                   | 25,8                    | 3317       | 27005            | 27005        |
| 5125                    | 48,35  | 13,92                   | 23,6                    | 3350       | 27648            | 27648        |
| 5125                    | 53,16  | 12,66                   | 21,4                    | 3409       | 29045            | 29045        |
| 5125                    | 54,63  | 12,32                   | 20,9                    | 3425       | 29456            | 29456        |
| 5125                    | 59,02  | 11,40                   | 19,3                    | 3468       | 30639            | 30639        |
| 5125                    | 64,88  | 10,37                   | 17,6                    | 3516       | 32132            | 32132        |
| 5125                    | 70,43  | 9,56                    | 16,2                    | 3555       | 33463            | 33463        |
| 5125                    | 77,12  | 8,73                    | 14,8                    | 3593       | 34976            | 34976        |
| 5125                    | 85,54  | 7,87                    | 13,3                    | 3634       | 36763            | 36763        |
| 5125                    | 94,13  | 7,15                    | 12,1                    | 3667       | 38465            | 38465        |
| 5125                    | 105,83 | 6,36                    | 10,8                    | 3704       | 40000            | 40000        |
| 5125                    | 111,94 | 6,01                    | 10,2                    | 3721       | 40000            | 40000        |
| 5125                    | 124,62 | 5,40                    | 9,2                     | 3749       | 40000            | 40000        |
| 5125                    | 136,44 | 4,93                    | 8,4                     | 3771       | 40000            | 40000        |
| 5125                    | 149,59 | 4,50                    | 7,6                     | 3792       | 40000            | 40000        |
| 5125                    | 166,53 | 4,04                    | 6,8                     | 3813       | 40000            | 40000        |
| 5125                    | 187,24 | 3,59                    | 6,1                     | 3834       | 40000            | 40000        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 4613                    | 10,49 | 57,73                   | 108,7                   | 6961       | 35245            | 35245        |
| 4613                    | 12,64 | 47,91                   | 90,2                    | 7457       | 37910            | 37910        |
| 5125                    | 14,01 | 48,04                   | 81,4                    | 7450       | 38700            | 38700        |
| 5125                    | 15,40 | 43,70                   | 74,0                    | 7669       | 40164            | 40164        |
| 6150                    | 18,56 | 43,53                   | 61,4                    | 7678       | 41686            | 41686        |
| 6663                    | 20,56 | 42,55                   | 55,4                    | 7727       | 42683            | 42683        |
| 6868                    | 23,86 | 37,80                   | 47,8                    | 7967       | 45019            | 45019        |
| 6970                    | 25,19 | 36,34                   | 45,3                    | 8041       | 45863            | 45863        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 8200                    | 28,23  | 38,14                   | 40,4                    | 7950       | 46211            | 46211        |
| 8200                    | 30,35  | 35,48                   | 37,6                    | 8084       | 47617            | 47617        |
| 8200                    | 33,63  | 32,02                   | 33,9                    | 8259       | 49675            | 49675        |
| 8200                    | 35,02  | 30,75                   | 32,6                    | 8323       | 50502            | 50502        |
| 8200                    | 38,81  | 27,75                   | 29,4                    | 8474       | 52659            | 52659        |
| 8200                    | 42,30  | 25,46                   | 26,9                    | 8590       | 54522            | 54522        |
| 8200                    | 47,53  | 22,65                   | 24,0                    | 8731       | 57136            | 57136        |
| 8200                    | 50,56  | 21,30                   | 22,6                    | 8800       | 58561            | 58561        |
| 8200                    | 54,64  | 19,71                   | 20,9                    | 8880       | 60391            | 60391        |
| 8200                    | 57,27  | 18,80                   | 19,9                    | 8926       | 61524            | 61524        |
| 8200                    | 60,92  | 17,68                   | 18,7                    | 8983       | 63040            | 63040        |
| 8200                    | 63,47  | 16,97                   | 18,0                    | 9019       | 64061            | 64061        |
| 8200                    | 71,15  | 15,14                   | 16,0                    | 9111       | 65000            | 65000        |
| 8200                    | 77,22  | 13,94                   | 14,8                    | 9171       | 65000            | 65000        |
| 8200                    | 83,89  | 12,84                   | 13,6                    | 9227       | 65000            | 65000        |
| 8200                    | 87,65  | 12,29                   | 13,0                    | 9255       | 65000            | 65000        |
| 8200                    | 93,05  | 11,57                   | 12,2                    | 9291       | 65000            | 65000        |
| 8200                    | 103,12 | 10,44                   | 11,1                    | 9348       | 65000            | 65000        |
| 8200                    | 123,88 | 8,69                    | 9,2                     | 9436       | 65000            | 65000        |
| 8200                    | 134,27 | 8,02                    | 8,5                     | 9470       | 65000            | 65000        |
| 8200                    | 149,26 | 7,21                    | 7,6                     | 9511       | 65000            | 65000        |
| 8200                    | 165,42 | 6,51                    | 6,9                     | 9546       | 65000            | 65000        |

## IB163

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 6970                    | 8,89  | 102,94                  | 128,2                   | 6992       | 49918            | 49918        |
| 8098                    | 10,58 | 100,55                  | 107,8                   | 7069       | 51605            | 51605        |
| 7893                    | 11,87 | 87,32                   | 96,0                    | 7496       | 54517            | 54517        |
| 9020                    | 12,81 | 92,48                   | 89,0                    | 7330       | 54285            | 54285        |
| 9840                    | 14,08 | 91,75                   | 81,0                    | 7353       | 55080            | 55080        |
| 10250                   | 15,52 | 86,72                   | 73,5                    | 7516       | 56720            | 56720        |
| 10148                   | 16,39 | 81,33                   | 69,6                    | 7690       | 58246            | 58246        |
| 10660                   | 18,02 | 77,70                   | 63,3                    | 7807       | 59766            | 59766        |
| 10968                   | 19,96 | 72,17                   | 57,1                    | 7986       | 61920            | 61920        |
| 10660                   | 21,94 | 63,79                   | 52,0                    | 8257       | 65037            | 65000        |
| 10763                   | 24,17 | 58,47                   | 47,2                    | 8429       | 67572            | 65000        |
| 11378                   | 26,58 | 56,22                   | 42,9                    | 8502       | 69244            | 65000        |
| 10455                   | 28,80 | 47,67                   | 39,6                    | 8778       | 73249            | 65000        |
| 11788                   | 30,92 | 50,06                   | 36,9                    | 8700       | 73095            | 65000        |
| 12198                   | 34,25 | 46,76                   | 33,3                    | 8807       | 75594            | 65000        |
| 12608                   | 37,66 | 43,96                   | 30,3                    | 8897       | 77959            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | $i$    | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | $Fr_1$<br>[N] | $Fr_2$<br>D-S-P [N] | $Fr_2$<br>C [N] |
|----------------|--------|----------------|----------------|---------------|---------------------|-----------------|
| 13018          | 40,65  | 42,05          | 28,0           | 8959          | 79796               | 65000           |
| 12300          | 45,09  | 35,82          | 25,3           | 9160          | 80000               | 65000           |
| 13325          | 51,00  | 34,31          | 22,4           | 9209          | 80000               | 65000           |
| 13325          | 53,63  | 32,63          | 21,3           | 9264          | 80000               | 65000           |
| 13325          | 58,97  | 29,68          | 19,3           | 9359          | 80000               | 65000           |
| 13325          | 69,78  | 25,08          | 16,3           | 9508          | 80000               | 65000           |
| 13325          | 76,72  | 22,81          | 14,9           | 9581          | 80000               | 65000           |
| 13325          | 87,54  | 19,99          | 13,0           | 9672          | 80000               | 65000           |
| 13325          | 96,25  | 18,18          | 11,8           | 9730          | 80000               | 65000           |
| 13325          | 103,93 | 16,84          | 11,0           | 9774          | 80000               | 65000           |
| 13325          | 114,27 | 15,31          | 10,0           | 9823          | 80000               | 65000           |
| 13325          | 126,29 | 13,86          | 9,0            | 9870          | 80000               | 65000           |
| 13325          | 138,85 | 12,60          | 8,2            | 9911          | 80000               | 65000           |
| 13325          | 154,83 | 11,30          | 7,4            | 9953          | 80000               | 65000           |

## IBA42

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 95                      | 7,62  | 1,22                    | 118,2                   | 373        | -                | 2102         |
| 95                      | 10,62 | 0,87                    | 84,7                    | 355        | -                | 2349         |
| 95                      | 12,95 | 0,72                    | 69,5                    | 406        | -                | 2509         |
| 95                      | 14,46 | 0,64                    | 62,2                    | 443        | -                | 2603         |
| 126                     | 16,47 | 0,75                    | 54,6                    | 579        | -                | 2718         |
| 126                     | 22,97 | 0,54                    | 39,2                    | 355        | -                | 3037         |
| 126                     | 28,00 | 0,44                    | 32,1                    | 406        | -                | 3244         |
| 126                     | 31,27 | 0,40                    | 28,8                    | 443        | -                | 3366         |
| 126                     | 33,78 | 0,37                    | 26,6                    | 458        | -                | 3454         |
| 126                     | 47,12 | 0,26                    | 19,1                    | 355        | -                | 3859         |
| 126                     | 57,43 | 0,22                    | 15,7                    | 406        | -                | 4000         |
| 116                     | 64,13 | 0,18                    | 14,0                    | 406        | -                | 4000         |
| 116                     | 78,17 | 0,15                    | 11,5                    | 406        | -                | 4000         |

## IBA52

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 168                     | 7,91  | 2,09                    | 113,8                   | 373        | -                | 2281         |
| 168                     | 9,46  | 1,74                    | 95,1                    | 414        | -                | 2421         |
| 168                     | 11,57 | 1,43                    | 77,8                    | 405        | -                | 2589         |
| 168                     | 14,63 | 1,13                    | 61,5                    | 392        | -                | 2799         |
| 210                     | 17,11 | 1,21                    | 52,6                    | 529        | -                | 2950         |
| 210                     | 20,46 | 1,01                    | 44,0                    | 414        | -                | 3131         |
| 210                     | 25,03 | 0,82                    | 36,0                    | 405        | -                | 3349         |
| 210                     | 31,63 | 0,65                    | 28,4                    | 392        | -                | 3620         |
| 210                     | 35,10 | 0,59                    | 25,6                    | 446        | -                | 3748         |
| 210                     | 41,97 | 0,49                    | 21,4                    | 414        | -                | 3978         |
| 231                     | 51,34 | 0,44                    | 17,5                    | 445        | -                | 4000         |
| 210                     | 64,87 | 0,32                    | 13,9                    | 356        | -                | 4000         |
| 210                     | 79,07 | 0,26                    | 11,4                    | 406        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 231                     | 73,70  | 0,32                    | 12,2                    | 472        | -                | 4000         |
| 231                     | 93,33  | 0,26                    | 9,6                     | 472        | -                | 4000         |
| 231                     | 111,61 | 0,21                    | 8,1                     | 472        | -                | 4000         |
| 231                     | 136,53 | 0,18                    | 6,6                     | 472        | -                | 4000         |
| 231                     | 172,53 | 0,14                    | 5,2                     | 472        | -                | 4000         |
| 231                     | 197,11 | 0,12                    | 4,6                     | 472        | -                | 4000         |
| 231                     | 249,08 | 0,10                    | 3,6                     | 472        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 231                     | 271,16 | 0,09                    | 3,3                     | 472        | -                | 4000         |
| 231                     | 342,65 | 0,07                    | 2,6                     | 472        | -                | 4000         |

## IBA72

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 368                     | 8,36  | 4,32                    | 107,7                   | 664        | 5885             | 2942         |
| 368                     | 10,06 | 3,59                    | 89,5                    | 685        | 6260             | 3130         |
| 368                     | 12,44 | 2,90                    | 72,3                    | 667        | 6720             | 3360         |
| 441                     | 14,91 | 2,91                    | 60,4                    | 826        | 7137             | 3568         |
| 441                     | 17,94 | 2,41                    | 50,2                    | 685        | 7592             | 3796         |
| 441                     | 22,19 | 1,95                    | 40,5                    | 667        | 8150             | 4075         |
| 441                     | 27,45 | 1,58                    | 32,8                    | 667        | 8748             | 4374         |
| 441                     | 33,04 | 1,31                    | 27,2                    | 685        | 9306             | 4653         |
| 420                     | 40,87 | 1,01                    | 22,0                    | 635        | 9989             | 4995         |
| 368                     | 45,64 | 0,79                    | 19,7                    | 646        | 10000            | 5182         |
| 368                     | 54,94 | 0,66                    | 16,4                    | 685        | 10000            | 5500         |
| 368                     | 67,96 | 0,53                    | 13,2                    | 667        | 10000            | 5500         |

## IBA73

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 473                     | 43,89  | 1,12                    | 20,5                    | 330        | 10000            | 5115         |
| 473                     | 52,83  | 0,93                    | 17,0                    | 411        | 10000            | 5441         |
| 473                     | 65,35  | 0,75                    | 13,8                    | 400        | 10000            | 5500         |
| 473                     | 80,83  | 0,61                    | 11,1                    | 400        | 10000            | 5500         |
| 473                     | 97,29  | 0,50                    | 9,2                     | 411        | 10000            | 5500         |
| 473                     | 120,34 | 0,41                    | 7,5                     | 400        | 10000            | 5500         |
| 473                     | 149,73 | 0,33                    | 6,0                     | 398        | 10000            | 5500         |
| 473                     | 180,23 | 0,27                    | 5,0                     | 411        | 10000            | 5500         |
| 473                     | 222,93 | 0,22                    | 4,0                     | 400        | 10000            | 5500         |
| 473                     | 260,20 | 0,19                    | 3,5                     | 424        | 10000            | 5500         |
| 473                     | 321,85 | 0,15                    | 2,8                     | 400        | 10000            | 5500         |
| 473                     | 357,95 | 0,14                    | 2,5                     | 445        | 10000            | 5500         |
| 473                     | 442,76 | 0,11                    | 2,0                     | 400        | 10000            | 5500         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|------|-------------------------|-------------------------|------------|------------------|--------------|
| 305                     | 5,71 | 5,52                    | 157,5                   | 270        | 8278             | 2365         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 357                     | 6,88   | 5,38                    | 130,8                   | 294        | 8651             | 2472         |
| 368                     | 7,32   | 5,20                    | 122,9                   | 324        | 8817             | 2519         |
| 483                     | 9,16   | 5,47                    | 98,2                    | 280        | 9099             | 2600         |
| 546                     | 10,26  | 5,52                    | 87,7                    | 272        | 9246             | 2642         |
| 567                     | 11,03  | 5,33                    | 81,6                    | 302        | 9432             | 2695         |
| 609                     | 12,35  | 5,11                    | 72,8                    | 339        | 9701             | 2772         |
| 620                     | 13,15  | 4,88                    | 68,4                    | 377        | 9913             | 2832         |
| 620                     | 15,18  | 4,23                    | 59,3                    | 485        | 10527            | 3008         |
| 630                     | 17,00  | 3,84                    | 52,9                    | 551        | 10989            | 3140         |
| 630                     | 22,39  | 2,92                    | 40,2                    | 705        | 12000            | 3516         |
| 630                     | 26,09  | 2,50                    | 34,5                    | 774        | 12000            | 3740         |
| 630                     | 28,03  | 2,33                    | 32,1                    | 803        | 12000            | 3849         |
| 630                     | 33,43  | 1,95                    | 26,9                    | 865        | 12000            | 4128         |
| 630                     | 38,58  | 1,69                    | 23,3                    | 909        | 12000            | 4367         |
| 630                     | 43,22  | 1,51                    | 20,8                    | 939        | 12000            | 4565         |
| 630                     | 50,81  | 1,29                    | 17,7                    | 977        | 12000            | 4860         |
| 630                     | 56,93  | 1,15                    | 15,8                    | 1000       | 12000            | 5076         |
| 630                     | 69,16  | 0,94                    | 13,0                    | 1034       | 12000            | 5467         |
| 630                     | 77,48  | 0,84                    | 11,6                    | 1050       | 12000            | 5707         |
| 630                     | 90,33  | 0,72                    | 10,0                    | 1070       | 12000            | 6045         |
| 630                     | 101,20 | 0,65                    | 8,9                     | 1083       | 12000            | 6308         |
| 630                     | 111,74 | 0,58                    | 8,1                     | 1094       | 12000            | 6544         |
| 630                     | 124,20 | 0,53                    | 7,2                     | 1103       | 12000            | 6805         |
| 630                     | 139,15 | 0,47                    | 6,5                     | 1113       | 12000            | 7097         |
| 630                     | 157,42 | 0,41                    | 5,7                     | 1122       | 12000            | 7425         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 525                     | 7,81  | 6,97                    | 115,2                   | 1619       | 14076            | 4022         |
| 630                     | 8,62  | 7,57                    | 104,4                   | 1500       | 14190            | 4054         |
| 683                     | 10,49 | 6,74                    | 85,8                    | 1664       | 15098            | 4314         |
| 788                     | 11,59 | 7,05                    | 77,7                    | 1604       | 15267            | 4362         |
| 851                     | 14,43 | 6,11                    | 62,4                    | 1789       | 16398            | 4685         |
| 893                     | 16,60 | 5,58                    | 54,2                    | 1895       | 17165            | 4904         |
| 893                     | 18,32 | 5,05                    | 49,1                    | 2000       | 17855            | 5102         |
| 893                     | 22,82 | 4,06                    | 39,4                    | 2197       | 18000            | 5562         |
| 893                     | 26,71 | 3,46                    | 33,7                    | 2314       | 18000            | 5914         |
| 893                     | 29,50 | 3,14                    | 30,5                    | 2378       | 18000            | 6145         |
| 893                     | 31,80 | 2,91                    | 28,3                    | 2423       | 18000            | 6325         |
| 893                     | 34,49 | 2,68                    | 26,1                    | 2468       | 18000            | 6525         |
| 893                     | 39,60 | 2,34                    | 22,7                    | 2500       | 18000            | 6877         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 893                     | 42,95  | 2,15                    | 20,9                    | 2500       | 18000            | 7092         |
| 893                     | 45,44  | 2,04                    | 19,8                    | 2500       | 18000            | 7245         |
| 893                     | 51,19  | 1,81                    | 17,6                    | 2500       | 18000            | 7577         |
| 893                     | 55,52  | 1,67                    | 16,2                    | 2500       | 18000            | 7811         |
| 893                     | 59,96  | 1,54                    | 15,0                    | 2500       | 18000            | 8038         |
| 893                     | 63,74  | 1,45                    | 14,1                    | 2500       | 18000            | 8223         |
| 893                     | 69,14  | 1,34                    | 13,0                    | 2500       | 18000            | 8475         |
| 893                     | 73,14  | 1,27                    | 12,3                    | 2500       | 18000            | 8653         |
| 893                     | 80,76  | 1,15                    | 11,1                    | 2500       | 18000            | 8975         |
| 893                     | 92,19  | 1,00                    | 9,8                     | 2500       | 18000            | 9421         |
| 893                     | 100,57 | 0,92                    | 8,9                     | 2500       | 18000            | 9726         |
| 893                     | 105,29 | 0,88                    | 8,6                     | 2500       | 18000            | 9890         |
| 893                     | 116,25 | 0,80                    | 7,7                     | 2500       | 18000            | 10253        |
| 893                     | 126,76 | 0,73                    | 7,1                     | 2500       | 18000            | 10580        |
| 893                     | 144,77 | 0,64                    | 6,2                     | 2500       | 18000            | 11100        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 840                     | 8,13  | 10,72                   | 110,7                   | 983        | 17448            | 4985         |
| 945                     | 8,97  | 10,93                   | 100,4                   | 944        | 17802            | 5086         |
| 1050                    | 10,92 | 9,97                    | 82,4                    | 1122       | 18879            | 5394         |
| 1050                    | 12,05 | 9,03                    | 74,7                    | 1296       | 19601            | 5600         |
| 1260                    | 14,99 | 8,72                    | 60,1                    | 1356       | 20685            | 5910         |
| 1470                    | 17,27 | 8,82                    | 52,1                    | 1336       | 21247            | 6070         |
| 1470                    | 19,06 | 8,00                    | 47,2                    | 1490       | 22000            | 6311         |
| 1470                    | 23,70 | 6,43                    | 38,0                    | 1782       | 22000            | 6872         |
| 1575                    | 26,51 | 6,16                    | 34,0                    | 1833       | 22000            | 7090         |
| 1680                    | 30,55 | 5,70                    | 29,5                    | 1918       | 22000            | 7406         |
| 1785                    | 33,07 | 5,60                    | 27,2                    | 1937       | 22000            | 7552         |
| 1785                    | 35,87 | 5,16                    | 25,1                    | 2019       | 22000            | 7797         |
| 1785                    | 41,12 | 4,50                    | 21,9                    | 2142       | 22000            | 8224         |
| 1785                    | 44,61 | 4,15                    | 20,2                    | 2207       | 22000            | 8488         |
| 1785                    | 47,28 | 3,91                    | 19,0                    | 2251       | 22000            | 8681         |
| 1785                    | 50,24 | 3,68                    | 17,9                    | 2294       | 22000            | 8886         |
| 1785                    | 53,02 | 3,49                    | 17,0                    | 2330       | 22000            | 9072         |
| 1785                    | 58,50 | 3,16                    | 15,4                    | 2391       | 22000            | 9420         |
| 1785                    | 64,89 | 2,85                    | 13,9                    | 2449       | 22000            | 9798         |
| 1785                    | 68,58 | 2,70                    | 13,1                    | 2478       | 22000            | 10006        |
| 1785                    | 72,76 | 2,54                    | 12,4                    | 2506       | 22000            | 10232        |
| 1785                    | 78,92 | 2,34                    | 11,4                    | 2544       | 22000            | 10550        |
| 1890                    | 83,66 | 2,34                    | 10,8                    | 2544       | 22000            | 10697        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1890                    | 92,31  | 2,12                    | 9,8                     | 2585       | 22000            | 11102        |
| 1890                    | 105,44 | 1,86                    | 8,5                     | 2634       | 22000            | 11670        |
| 1890                    | 114,80 | 1,71                    | 7,8                     | 2662       | 22000            | 12046        |
| 1890                    | 120,42 | 1,63                    | 7,5                     | 2677       | 22000            | 12262        |
| 1890                    | 132,87 | 1,47                    | 6,8                     | 2706       | 22000            | 12718        |
| 1890                    | 144,69 | 1,35                    | 6,2                     | 2728       | 22000            | 13125        |
| 1890                    | 165,25 | 1,19                    | 5,5                     | 2760       | 22000            | 13783        |

## IB123

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1575                    | 7,97   | 20,50                   | 113,0                   | 2489       | 20762            | 5932         |
| 1890                    | 9,62   | 20,37                   | 93,6                    | 2498       | 21113            | 6032         |
| 2100                    | 10,33  | 21,07                   | 87,1                    | 2447       | 20861            | 5960         |
| 2100                    | 12,48  | 17,45                   | 72,1                    | 2714       | 22821            | 6520         |
| 2205                    | 13,84  | 16,51                   | 65,0                    | 2783       | 23470            | 6706         |
| 2205                    | 15,38  | 14,86                   | 58,5                    | 2905       | 24658            | 7045         |
| 2310                    | 18,58  | 12,89                   | 48,5                    | 3050       | 26410            | 7546         |
| 2625                    | 20,61  | 13,21                   | 43,7                    | 3027       | 26253            | 7501         |
| 2940                    | 22,78  | 13,38                   | 39,5                    | 3014       | 26094            | 7455         |
| 2940                    | 25,89  | 11,77                   | 34,8                    | 3132       | 27801            | 7943         |
| 2940                    | 27,51  | 11,08                   | 32,7                    | 3184       | 28638            | 8182         |
| 2940                    | 30,79  | 9,90                    | 29,2                    | 3271       | 30000            | 8639         |
| 2940                    | 31,26  | 9,75                    | 28,8                    | 3282       | 30000            | 8701         |
| 2940                    | 34,68  | 8,79                    | 25,9                    | 3353       | 30000            | 9139         |
| 2940                    | 40,53  | 7,52                    | 22,2                    | 3446       | 30000            | 9825         |
| 3150                    | 44,89  | 7,27                    | 20,1                    | 3464       | 30000            | 10019        |
| 3360                    | 49,80  | 6,99                    | 18,1                    | 3485       | 30000            | 10236        |
| 3360                    | 54,30  | 6,42                    | 16,6                    | 3528       | 30000            | 10660        |
| 3360                    | 59,36  | 5,87                    | 15,2                    | 3568       | 30000            | 11110        |
| 3465                    | 62,59  | 5,74                    | 14,4                    | 3578       | 30000            | 11246        |
| 3465                    | 69,43  | 5,17                    | 13,0                    | 3619       | 30000            | 11796        |
| 3675                    | 74,42  | 5,12                    | 12,1                    | 3623       | 30000            | 11899        |
| 3675                    | 80,04  | 4,76                    | 11,2                    | 3650       | 30000            | 12306        |
| 3675                    | 89,87  | 4,24                    | 10,0                    | 3688       | 30000            | 12973        |
| 3675                    | 99,70  | 3,82                    | 9,0                     | 3719       | 30000            | 13593        |
| 3675                    | 106,65 | 3,57                    | 8,4                     | 3738       | 30000            | 14008        |
| 3675                    | 119,60 | 3,19                    | 7,5                     | 3766       | 30000            | 14733        |
| 3675                    | 129,96 | 2,93                    | 6,9                     | 3785       | 30000            | 15277        |
| 3675                    | 144,43 | 2,64                    | 6,2                     | 3807       | 30000            | 15990        |
| 3675                    | 160,23 | 2,38                    | 5,6                     | 3826       | 30000            | 16715        |
| 3675                    | 180,40 | 2,11                    | 5,0                     | 3845       | 30000            | 17575        |



## IB143

| $Mn_2$<br>[Nm] | i      | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|----------------|--------|----------------|----------------|------------|------------------|--------------|
| 3150           | 10,84  | 30,13          | 83,0           | 2214       | 18991            | 18991        |
| 3255           | 11,87  | 28,44          | 75,8           | 2315       | 19538            | 19538        |
| 3255           | 14,49  | 23,30          | 62,1           | 2620       | 21572            | 21572        |
| 3360           | 17,04  | 20,44          | 52,8           | 2789       | 22997            | 22997        |
| 3780           | 18,66  | 21,00          | 48,2           | 2756       | 22681            | 22681        |
| 4200           | 21,00  | 20,74          | 42,9           | 2771       | 22722            | 22722        |
| 4620           | 22,77  | 21,03          | 39,5           | 2754       | 22363            | 22363        |
| 4830           | 25,63  | 19,54          | 35,1           | 2843       | 23168            | 23168        |
| 4830           | 27,44  | 18,25          | 32,8           | 2919       | 24049            | 24049        |
| 4935           | 30,05  | 17,03          | 29,9           | 2992       | 24912            | 24912        |
| 4935           | 33,01  | 15,50          | 27,3           | 3082       | 26194            | 26194        |
| 5040           | 36,67  | 14,25          | 24,5           | 3157       | 27341            | 27341        |
| 5040           | 40,29  | 12,97          | 22,3           | 3233       | 28710            | 28710        |
| 5040           | 44,16  | 11,83          | 20,4           | 3300       | 30087            | 30087        |
| 5250           | 48,35  | 11,26          | 18,6           | 3334       | 30819            | 30819        |
| 5250           | 53,16  | 10,24          | 16,9           | 3395       | 32330            | 32330        |
| 5250           | 54,63  | 9,96           | 16,5           | 3411       | 32773            | 32773        |
| 5250           | 59,02  | 9,22           | 15,2           | 3455       | 34052            | 34052        |
| 5250           | 64,88  | 8,39           | 13,9           | 3504       | 35666            | 35666        |
| 5250           | 70,43  | 7,73           | 12,8           | 3544       | 37106            | 37106        |
| 5250           | 77,12  | 7,06           | 11,7           | 3583       | 38741            | 38741        |
| 5250           | 85,54  | 6,36           | 10,5           | 3625       | 40000            | 40000        |
| 5250           | 94,13  | 5,78           | 9,6            | 3659       | 40000            | 40000        |
| 5250           | 105,83 | 5,14           | 8,5            | 3697       | 40000            | 40000        |
| 5250           | 111,94 | 4,86           | 8,0            | 3714       | 40000            | 40000        |
| 5250           | 124,62 | 4,37           | 7,2            | 3743       | 40000            | 40000        |
| 5250           | 136,44 | 3,99           | 6,6            | 3766       | 40000            | 40000        |
| 5250           | 149,59 | 3,64           | 6,0            | 3786       | 40000            | 40000        |
| 5250           | 166,53 | 3,27           | 5,4            | 3808       | 40000            | 40000        |
| 5250           | 187,24 | 2,91           | 4,8            | 3830       | 40000            | 40000        |

## IB153

| $Mn_2$<br>[Nm] | i     | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|----------------|-------|----------------|----------------|------------|------------------|--------------|
| 4725           | 10,49 | 46,69          | 85,8           | 6890       | 38488            | 38488        |
| 4725           | 12,64 | 38,75          | 71,2           | 7398       | 41370            | 41370        |
| 5250           | 14,01 | 38,85          | 64,2           | 7391       | 42266            | 42266        |
| 5250           | 15,40 | 35,34          | 58,4           | 7615       | 43850            | 43850        |
| 6300           | 18,56 | 35,20          | 48,5           | 7624       | 45580            | 45580        |
| 6825           | 20,56 | 34,41          | 43,8           | 7675       | 46701            | 46701        |
| 7035           | 23,86 | 30,57          | 37,7           | 7920       | 49243            | 49243        |
| 7140           | 25,19 | 29,39          | 35,7           | 7996       | 50164            | 50164        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 8400                    | 28,23  | 30,85                   | 31,9                    | 7903       | 50642            | 50642        |
| 8400                    | 30,35  | 28,70                   | 29,7                    | 8040       | 52163            | 52163        |
| 8400                    | 33,63  | 25,89                   | 26,8                    | 8219       | 54387            | 54387        |
| 8400                    | 35,02  | 24,87                   | 25,7                    | 8285       | 55282            | 55282        |
| 8400                    | 38,81  | 22,44                   | 23,2                    | 8440       | 57613            | 57613        |
| 8400                    | 42,30  | 20,59                   | 21,3                    | 8559       | 59628            | 59628        |
| 8400                    | 47,53  | 18,32                   | 18,9                    | 8704       | 62454            | 62454        |
| 8400                    | 50,56  | 17,22                   | 17,8                    | 8774       | 63995            | 63995        |
| 8400                    | 54,64  | 15,94                   | 16,5                    | 8856       | 65000            | 65000        |
| 8400                    | 57,27  | 15,21                   | 15,7                    | 8903       | 65000            | 65000        |
| 8400                    | 60,92  | 14,29                   | 14,8                    | 8961       | 65000            | 65000        |
| 8400                    | 63,47  | 13,72                   | 14,2                    | 8998       | 65000            | 65000        |
| 8400                    | 71,15  | 12,24                   | 12,7                    | 9092       | 65000            | 65000        |
| 8400                    | 77,22  | 11,28                   | 11,7                    | 9154       | 65000            | 65000        |
| 8400                    | 83,89  | 10,38                   | 10,7                    | 9211       | 65000            | 65000        |
| 8400                    | 87,65  | 9,94                    | 10,3                    | 9240       | 65000            | 65000        |
| 8400                    | 93,05  | 9,36                    | 9,7                     | 9277       | 65000            | 65000        |
| 8400                    | 103,12 | 8,45                    | 8,7                     | 9335       | 65000            | 65000        |
| 8400                    | 123,88 | 7,03                    | 7,3                     | 9425       | 65000            | 65000        |
| 8400                    | 134,27 | 6,49                    | 6,7                     | 9460       | 65000            | 65000        |
| 8400                    | 149,26 | 5,83                    | 6,0                     | 9502       | 65000            | 65000        |
| 8400                    | 165,42 | 5,26                    | 5,4                     | 9538       | 65000            | 65000        |

## IB163

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 7140                    | 8,89  | 83,25                   | 101,2                   | 6911       | 54659            | 54659        |
| 8295                    | 10,58 | 81,32                   | 85,1                    | 6990       | 56595            | 56595        |
| 8085                    | 11,87 | 70,62                   | 75,8                    | 7428       | 59722            | 59722        |
| 9240                    | 12,81 | 74,79                   | 70,3                    | 7257       | 59584            | 59584        |
| 10080                   | 14,08 | 74,20                   | 63,9                    | 7281       | 60524            | 60524        |
| 10500                   | 15,52 | 70,13                   | 58,0                    | 7448       | 62338            | 62338        |
| 10395                   | 16,39 | 65,77                   | 54,9                    | 7626       | 63977            | 63977        |
| 10920                   | 18,02 | 62,84                   | 50,0                    | 7746       | 65672            | 65000        |
| 11235                   | 19,96 | 58,37                   | 45,1                    | 7929       | 68031            | 65000        |
| 10920                   | 21,94 | 51,59                   | 41,0                    | 8206       | 71371            | 65000        |
| 11025                   | 24,17 | 47,29                   | 37,2                    | 8383       | 74121            | 65000        |
| 11655                   | 26,58 | 45,46                   | 33,9                    | 8457       | 75990            | 65000        |
| 10710                   | 28,80 | 38,55                   | 31,2                    | 8740       | 80000            | 65000        |
| 12075                   | 30,92 | 40,48                   | 29,1                    | 8661       | 80000            | 65000        |
| 12495                   | 34,25 | 37,82                   | 26,3                    | 8770       | 80000            | 65000        |
| 12915                   | 37,66 | 35,55                   | 23,9                    | 8863       | 80000            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | $i$    | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | $Fr_1$<br>[N] | $Fr_2$<br>D-S-P [N] | $Fr_2$<br>C [N] |
|----------------|--------|----------------|----------------|---------------|---------------------|-----------------|
| 13335          | 40,65  | 34,01          | 22,1           | 8926          | 80000               | 65000           |
| 12600          | 45,09  | 28,97          | 20,0           | 9132          | 80000               | 65000           |
| 13650          | 51,00  | 27,75          | 17,6           | 9182          | 80000               | 65000           |
| 13650          | 53,63  | 26,39          | 16,8           | 9238          | 80000               | 65000           |
| 13650          | 58,97  | 24,00          | 15,3           | 9336          | 80000               | 65000           |
| 13650          | 69,78  | 20,28          | 12,9           | 9488          | 80000               | 65000           |
| 13650          | 76,72  | 18,45          | 11,7           | 9563          | 80000               | 65000           |
| 13650          | 87,54  | 16,17          | 10,3           | 9656          | 80000               | 65000           |
| 13650          | 96,25  | 14,70          | 9,3            | 9716          | 80000               | 65000           |
| 13650          | 103,93 | 13,62          | 8,7            | 9761          | 80000               | 65000           |
| 13650          | 114,27 | 12,38          | 7,9            | 9811          | 80000               | 65000           |
| 13650          | 126,29 | 11,21          | 7,1            | 9859          | 80000               | 65000           |
| 13650          | 138,85 | 10,19          | 6,5            | 9901          | 80000               | 65000           |
| 13650          | 154,83 | 9,14           | 5,8            | 9944          | 80000               | 65000           |

## IBA42

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 96                      | 7,62  | 0,95                    | 91,9                    | 373        | -                | 2286         |
| 96                      | 10,62 | 0,68                    | 65,9                    | 355        | -                | 2554         |
| 96                      | 12,95 | 0,56                    | 54,1                    | 406        | -                | 2728         |
| 96                      | 14,46 | 0,50                    | 48,4                    | 443        | -                | 2830         |
| 128                     | 16,47 | 0,59                    | 42,5                    | 579        | -                | 2956         |
| 128                     | 22,97 | 0,42                    | 30,5                    | 355        | -                | 3303         |
| 128                     | 28,00 | 0,35                    | 25,0                    | 406        | -                | 3528         |
| 128                     | 31,27 | 0,31                    | 22,4                    | 443        | -                | 3660         |
| 128                     | 33,78 | 0,29                    | 20,7                    | 458        | -                | 3756         |
| 128                     | 47,12 | 0,21                    | 14,9                    | 355        | -                | 4000         |
| 128                     | 57,43 | 0,17                    | 12,2                    | 406        | -                | 4000         |
| 117                     | 64,13 | 0,14                    | 10,9                    | 406        | -                | 4000         |
| 117                     | 78,17 | 0,11                    | 9,0                     | 406        | -                | 4000         |

## IBA52

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 170                     | 7,91  | 1,63                    | 88,5                    | 373        | -                | 2480         |
| 170                     | 9,46  | 1,37                    | 74,0                    | 414        | -                | 2633         |
| 170                     | 11,57 | 1,12                    | 60,5                    | 405        | -                | 2816         |
| 170                     | 14,63 | 0,88                    | 47,9                    | 392        | -                | 3044         |
| 213                     | 17,11 | 0,94                    | 40,9                    | 529        | -                | 3208         |
| 213                     | 20,46 | 0,79                    | 34,2                    | 414        | -                | 3405         |
| 213                     | 25,03 | 0,65                    | 28,0                    | 405        | -                | 3641         |
| 213                     | 31,63 | 0,51                    | 22,1                    | 392        | -                | 3936         |
| 213                     | 35,10 | 0,46                    | 19,9                    | 446        | -                | 4000         |
| 213                     | 41,97 | 0,38                    | 16,7                    | 414        | -                | 4000         |
| 234                     | 51,34 | 0,35                    | 13,6                    | 445        | -                | 4000         |
| 213                     | 64,87 | 0,25                    | 10,8                    | 356        | -                | 4000         |
| 213                     | 79,07 | 0,20                    | 8,8                     | 406        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 234                     | 73,70  | 0,25                    | 9,5                     | 472        | -                | 4000         |
| 234                     | 93,33  | 0,20                    | 7,5                     | 472        | -                | 4000         |
| 234                     | 111,61 | 0,17                    | 6,3                     | 472        | -                | 4000         |
| 234                     | 136,53 | 0,14                    | 5,1                     | 472        | -                | 4000         |
| 234                     | 172,53 | 0,11                    | 4,1                     | 472        | -                | 4000         |
| 234                     | 197,11 | 0,10                    | 3,5                     | 472        | -                | 4000         |
| 234                     | 249,08 | 0,08                    | 2,8                     | 472        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 234                     | 271,16 | 0,07                    | 2,6                     | 472        | -                | 4000         |
| 234                     | 342,65 | 0,05                    | 2,0                     | 472        | -                | 4000         |

## IBA72

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 372                     | 8,36  | 3,38                    | 83,8                    | 664        | 6399             | 3200         |
| 372                     | 10,06 | 2,81                    | 69,6                    | 685        | 6807             | 3404         |
| 372                     | 12,44 | 2,27                    | 56,3                    | 667        | 7307             | 3654         |
| 446                     | 14,91 | 2,28                    | 47,0                    | 826        | 7761             | 3880         |
| 446                     | 17,94 | 1,89                    | 39,0                    | 685        | 8255             | 4128         |
| 446                     | 22,19 | 1,53                    | 31,5                    | 667        | 8862             | 4431         |
| 446                     | 27,45 | 1,24                    | 25,5                    | 667        | 9512             | 4756         |
| 446                     | 33,04 | 1,03                    | 21,2                    | 685        | 10000            | 5059         |
| 425                     | 40,87 | 0,79                    | 17,1                    | 635        | 10000            | 5431         |
| 372                     | 45,64 | 0,62                    | 15,3                    | 646        | 10000            | 5500         |
| 372                     | 54,94 | 0,51                    | 12,7                    | 685        | 10000            | 5500         |
| 372                     | 67,96 | 0,42                    | 10,3                    | 667        | 10000            | 5500         |

## IBA73

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 478                     | 43,89  | 0,87                    | 15,9                    | 330        | 10000            | 5500         |
| 478                     | 52,83  | 0,73                    | 13,2                    | 411        | 10000            | 5500         |
| 478                     | 65,35  | 0,59                    | 10,7                    | 400        | 10000            | 5500         |
| 478                     | 80,83  | 0,47                    | 8,7                     | 400        | 10000            | 5500         |
| 478                     | 97,29  | 0,39                    | 7,2                     | 411        | 10000            | 5500         |
| 478                     | 120,34 | 0,32                    | 5,8                     | 400        | 10000            | 5500         |
| 478                     | 149,73 | 0,26                    | 4,7                     | 398        | 10000            | 5500         |
| 478                     | 180,23 | 0,21                    | 3,9                     | 411        | 10000            | 5500         |
| 478                     | 222,93 | 0,17                    | 3,1                     | 400        | 10000            | 5500         |
| 478                     | 260,20 | 0,15                    | 2,7                     | 424        | 10000            | 5500         |
| 478                     | 321,85 | 0,12                    | 2,2                     | 400        | 10000            | 5500         |
| 478                     | 357,95 | 0,11                    | 2,0                     | 445        | 10000            | 5500         |
| 478                     | 442,76 | 0,09                    | 1,6                     | 400        | 10000            | 5500         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|------|-------------------------|-------------------------|------------|------------------|--------------|
| 308                     | 5,71 | 4,33                    | 122,5                   | 259        | 9097             | 2599         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 361                     | 6,88   | 4,21                    | 101,8                   | 283        | 9519             | 2720         |
| 372                     | 7,32   | 4,07                    | 95,6                    | 313        | 9703             | 2772         |
| 489                     | 9,16   | 4,28                    | 76,4                    | 269        | 10049            | 2871         |
| 553                     | 10,26  | 4,32                    | 68,2                    | 261        | 10229            | 2923         |
| 574                     | 11,03  | 4,17                    | 63,5                    | 292        | 10438            | 2982         |
| 616                     | 12,35  | 4,00                    | 56,7                    | 329        | 10744            | 3070         |
| 627                     | 13,15  | 3,82                    | 53,2                    | 367        | 10978            | 3137         |
| 627                     | 15,18  | 3,31                    | 46,1                    | 477        | 11646            | 3327         |
| 638                     | 17,00  | 3,01                    | 41,2                    | 543        | 12000            | 3472         |
| 638                     | 22,39  | 2,28                    | 31,3                    | 699        | 12000            | 3880         |
| 638                     | 26,09  | 1,96                    | 26,8                    | 769        | 12000            | 4124         |
| 638                     | 28,03  | 1,82                    | 25,0                    | 798        | 12000            | 4242         |
| 638                     | 33,43  | 1,53                    | 20,9                    | 861        | 12000            | 4545         |
| 638                     | 38,58  | 1,33                    | 18,1                    | 905        | 12000            | 4805         |
| 638                     | 43,22  | 1,18                    | 16,2                    | 936        | 12000            | 5020         |
| 638                     | 50,81  | 1,01                    | 13,8                    | 974        | 12000            | 5340         |
| 638                     | 56,93  | 0,90                    | 12,3                    | 997        | 12000            | 5576         |
| 638                     | 69,16  | 0,74                    | 10,1                    | 1032       | 12000            | 6000         |
| 638                     | 77,48  | 0,66                    | 9,0                     | 1049       | 12000            | 6261         |
| 638                     | 90,33  | 0,57                    | 7,8                     | 1069       | 12000            | 6629         |
| 638                     | 101,20 | 0,51                    | 6,9                     | 1082       | 12000            | 6914         |
| 638                     | 111,74 | 0,46                    | 6,3                     | 1092       | 12000            | 7171         |
| 638                     | 124,20 | 0,41                    | 5,6                     | 1102       | 12000            | 7454         |
| 638                     | 139,15 | 0,37                    | 5,0                     | 1112       | 12000            | 7771         |
| 638                     | 157,42 | 0,32                    | 4,5                     | 1121       | 12000            | 8000         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 531                     | 7,81  | 5,46                    | 89,6                    | 1603       | 15452            | 4415         |
| 638                     | 8,62  | 5,93                    | 81,2                    | 1482       | 15607            | 4459         |
| 691                     | 10,49 | 5,28                    | 66,7                    | 1648       | 16610            | 4746         |
| 797                     | 11,59 | 5,52                    | 60,4                    | 1588       | 16825            | 4807         |
| 861                     | 14,43 | 4,79                    | 48,5                    | 1775       | 18000            | 5163         |
| 903                     | 16,60 | 4,37                    | 42,2                    | 1882       | 18000            | 5405         |
| 903                     | 18,32 | 3,95                    | 38,2                    | 1988       | 18000            | 5620         |
| 903                     | 22,82 | 3,18                    | 30,7                    | 2187       | 18000            | 6120         |
| 903                     | 26,71 | 2,71                    | 26,2                    | 2306       | 18000            | 6502         |
| 903                     | 29,50 | 2,46                    | 23,7                    | 2371       | 18000            | 6753         |
| 903                     | 31,80 | 2,28                    | 22,0                    | 2417       | 18000            | 6949         |
| 903                     | 34,49 | 2,10                    | 20,3                    | 2462       | 18000            | 7166         |
| 903                     | 39,60 | 1,83                    | 17,7                    | 2500       | 18000            | 7549         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 903                     | 42,95  | 1,69                    | 16,3                    | 2500       | 18000            | 7783         |
| 903                     | 45,44  | 1,59                    | 15,4                    | 2500       | 18000            | 7948         |
| 903                     | 51,19  | 1,42                    | 13,7                    | 2500       | 18000            | 8309         |
| 903                     | 55,52  | 1,31                    | 12,6                    | 2500       | 18000            | 8563         |
| 903                     | 59,96  | 1,21                    | 11,7                    | 2500       | 18000            | 8810         |
| 903                     | 63,74  | 1,14                    | 11,0                    | 2500       | 18000            | 9011         |
| 903                     | 69,14  | 1,05                    | 10,1                    | 2500       | 18000            | 9284         |
| 903                     | 73,14  | 0,99                    | 9,6                     | 2500       | 18000            | 9478         |
| 903                     | 80,76  | 0,90                    | 8,7                     | 2500       | 18000            | 9828         |
| 903                     | 92,19  | 0,79                    | 7,6                     | 2500       | 18000            | 10313        |
| 903                     | 100,57 | 0,72                    | 7,0                     | 2500       | 18000            | 10644        |
| 903                     | 105,29 | 0,69                    | 6,7                     | 2500       | 18000            | 10822        |
| 903                     | 116,25 | 0,62                    | 6,0                     | 2500       | 18000            | 11216        |
| 903                     | 126,76 | 0,57                    | 5,5                     | 2500       | 18000            | 11571        |
| 903                     | 144,77 | 0,50                    | 4,8                     | 2500       | 18000            | 12000        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 850                     | 8,13  | 8,39                    | 86,1                    | 959        | 19137            | 5468         |
| 956                     | 8,97  | 8,56                    | 78,1                    | 920        | 19544            | 5584         |
| 1063                    | 10,92 | 7,81                    | 64,1                    | 1100       | 20736            | 5925         |
| 1063                    | 12,05 | 7,08                    | 58,1                    | 1276       | 21522            | 6149         |
| 1275                    | 14,99 | 6,83                    | 46,7                    | 1336       | 22000            | 6498         |
| 1488                    | 17,27 | 6,91                    | 40,5                    | 1316       | 22000            | 6685         |
| 1488                    | 19,06 | 6,26                    | 36,7                    | 1472       | 22000            | 6946         |
| 1488                    | 23,70 | 5,04                    | 29,5                    | 1768       | 22000            | 7556         |
| 1594                    | 26,51 | 4,82                    | 26,4                    | 1819       | 22000            | 7800         |
| 1700                    | 30,55 | 4,46                    | 22,9                    | 1905       | 22000            | 8149         |
| 1806                    | 33,07 | 4,38                    | 21,2                    | 1925       | 22000            | 8314         |
| 1806                    | 35,87 | 4,04                    | 19,5                    | 2007       | 22000            | 8581         |
| 1806                    | 41,12 | 3,52                    | 17,0                    | 2132       | 22000            | 9045         |
| 1806                    | 44,61 | 3,25                    | 15,7                    | 2198       | 22000            | 9331         |
| 1806                    | 47,28 | 3,07                    | 14,8                    | 2242       | 22000            | 9541         |
| 1806                    | 50,24 | 2,88                    | 13,9                    | 2286       | 22000            | 9764         |
| 1806                    | 53,02 | 2,73                    | 13,2                    | 2322       | 22000            | 9966         |
| 1806                    | 58,50 | 2,48                    | 12,0                    | 2384       | 22000            | 10344        |
| 1806                    | 64,89 | 2,23                    | 10,8                    | 2443       | 22000            | 10755        |
| 1806                    | 68,58 | 2,11                    | 10,2                    | 2472       | 22000            | 10980        |
| 1806                    | 72,76 | 1,99                    | 9,6                     | 2501       | 22000            | 11226        |
| 1806                    | 78,92 | 1,84                    | 8,9                     | 2538       | 22000            | 11572        |
| 1913                    | 83,66 | 1,83                    | 8,4                     | 2539       | 22000            | 11738        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1913                    | 92,31  | 1,66                    | 7,6                     | 2580       | 22000            | 12177        |
| 1913                    | 105,44 | 1,46                    | 6,6                     | 2630       | 22000            | 12794        |
| 1913                    | 114,80 | 1,34                    | 6,1                     | 2659       | 22000            | 13203        |
| 1913                    | 120,42 | 1,27                    | 5,8                     | 2674       | 22000            | 13438        |
| 1913                    | 132,87 | 1,15                    | 5,3                     | 2702       | 22000            | 13933        |
| 1913                    | 144,69 | 1,06                    | 4,8                     | 2725       | 22000            | 14376        |
| 1913                    | 165,25 | 0,93                    | 4,2                     | 2757       | 22000            | 15000        |

## IB123

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1594                    | 7,97   | 16,05                   | 87,9                    | 2471       | 23098            | 6599         |
| 1913                    | 9,62   | 15,95                   | 72,8                    | 2480       | 23587            | 6739         |
| 2125                    | 10,33  | 16,50                   | 67,7                    | 2428       | 23384            | 6681         |
| 2125                    | 12,48  | 13,66                   | 56,1                    | 2699       | 25514            | 7290         |
| 2231                    | 13,84  | 12,93                   | 50,6                    | 2768       | 26255            | 7501         |
| 2231                    | 15,38  | 11,64                   | 45,5                    | 2892       | 27546            | 7870         |
| 2338                    | 18,58  | 10,10                   | 37,7                    | 3039       | 29486            | 8425         |
| 2656                    | 20,61  | 10,34                   | 34,0                    | 3015       | 29423            | 8407         |
| 2975                    | 22,78  | 10,48                   | 30,7                    | 3002       | 29358            | 8388         |
| 2975                    | 25,89  | 9,22                    | 27,0                    | 3122       | 30000            | 8918         |
| 2975                    | 27,51  | 8,68                    | 25,4                    | 3174       | 30000            | 9178         |
| 2975                    | 30,79  | 7,75                    | 22,7                    | 3262       | 30000            | 9674         |
| 2975                    | 31,26  | 7,64                    | 22,4                    | 3273       | 30000            | 9742         |
| 2975                    | 34,68  | 6,88                    | 20,2                    | 3345       | 30000            | 10217        |
| 2975                    | 40,53  | 5,89                    | 17,3                    | 3440       | 30000            | 10963        |
| 3188                    | 44,89  | 5,70                    | 15,6                    | 3458       | 30000            | 11193        |
| 3400                    | 49,80  | 5,48                    | 14,1                    | 3479       | 30000            | 11450        |
| 3400                    | 54,30  | 5,02                    | 12,9                    | 3522       | 30000            | 11911        |
| 3400                    | 59,36  | 4,60                    | 11,8                    | 3563       | 30000            | 12399        |
| 3506                    | 62,59  | 4,50                    | 11,2                    | 3573       | 30000            | 12557        |
| 3506                    | 69,43  | 4,05                    | 10,1                    | 3615       | 30000            | 13155        |
| 3719                    | 74,42  | 4,01                    | 9,4                     | 3619       | 30000            | 13287        |
| 3719                    | 80,04  | 3,73                    | 8,8                     | 3646       | 30000            | 13729        |
| 3719                    | 89,87  | 3,32                    | 7,8                     | 3685       | 30000            | 14454        |
| 3719                    | 99,70  | 2,99                    | 7,0                     | 3716       | 30000            | 15128        |
| 3719                    | 106,65 | 2,80                    | 6,6                     | 3734       | 30000            | 15579        |
| 3719                    | 119,60 | 2,49                    | 5,8                     | 3763       | 30000            | 16367        |
| 3719                    | 129,96 | 2,30                    | 5,4                     | 3782       | 30000            | 16958        |
| 3719                    | 144,43 | 2,07                    | 4,8                     | 3804       | 30000            | 17732        |
| 3719                    | 160,23 | 1,86                    | 4,4                     | 3824       | 30000            | 18520        |
| 3719                    | 180,40 | 1,65                    | 3,9                     | 3843       | 30000            | 19455        |



## IB143

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 3188                    | 10,84  | 23,60                   | 64,6                    | 2193       | 21383            | 21383        |
| 3294                    | 11,87  | 22,27                   | 59,0                    | 2294       | 22002            | 22002        |
| 3294                    | 14,49  | 18,25                   | 48,3                    | 2603       | 24212            | 24212        |
| 3400                    | 17,04  | 16,01                   | 41,1                    | 2775       | 25785            | 25785        |
| 3825                    | 18,66  | 16,45                   | 37,5                    | 2741       | 25542            | 25542        |
| 4250                    | 21,00  | 16,24                   | 33,3                    | 2757       | 25686            | 25686        |
| 4675                    | 22,77  | 16,47                   | 30,7                    | 2739       | 25396            | 25396        |
| 4888                    | 25,63  | 15,30                   | 27,3                    | 2829       | 26320            | 26320        |
| 4888                    | 27,44  | 14,29                   | 25,5                    | 2906       | 27277            | 27277        |
| 4994                    | 30,05  | 13,34                   | 23,3                    | 2980       | 28240            | 28240        |
| 4994                    | 33,01  | 12,14                   | 21,2                    | 3071       | 29633            | 29633        |
| 5100                    | 36,67  | 11,16                   | 19,1                    | 3147       | 30904            | 30904        |
| 5100                    | 40,29  | 10,16                   | 17,4                    | 3223       | 32391            | 32391        |
| 5100                    | 44,16  | 9,27                    | 15,8                    | 3292       | 33887            | 33887        |
| 5313                    | 48,35  | 8,82                    | 14,5                    | 3326       | 34732            | 34732        |
| 5313                    | 53,16  | 8,02                    | 13,2                    | 3387       | 36374            | 36374        |
| 5313                    | 54,63  | 7,80                    | 12,8                    | 3404       | 36856            | 36856        |
| 5313                    | 59,02  | 7,22                    | 11,9                    | 3448       | 38246            | 38246        |
| 5313                    | 64,88  | 6,57                    | 10,8                    | 3499       | 39999            | 39999        |
| 5313                    | 70,43  | 6,05                    | 9,9                     | 3538       | 40000            | 40000        |
| 5313                    | 77,12  | 5,53                    | 9,1                     | 3578       | 40000            | 40000        |
| 5313                    | 85,54  | 4,98                    | 8,2                     | 3620       | 40000            | 40000        |
| 5313                    | 94,13  | 4,53                    | 7,4                     | 3655       | 40000            | 40000        |
| 5313                    | 105,83 | 4,03                    | 6,6                     | 3693       | 40000            | 40000        |
| 5313                    | 111,94 | 3,81                    | 6,2                     | 3710       | 40000            | 40000        |
| 5313                    | 124,62 | 3,42                    | 5,6                     | 3740       | 40000            | 40000        |
| 5313                    | 136,44 | 3,12                    | 5,1                     | 3763       | 40000            | 40000        |
| 5313                    | 149,59 | 2,85                    | 4,7                     | 3784       | 40000            | 40000        |
| 5313                    | 166,53 | 2,56                    | 4,2                     | 3806       | 40000            | 40000        |
| 5313                    | 187,24 | 2,28                    | 3,7                     | 3828       | 40000            | 40000        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 4781                    | 10,49 | 36,56                   | 66,7                    | 6854       | 42333            | 42333        |
| 4781                    | 12,64 | 30,35                   | 55,4                    | 7368       | 45464            | 45464        |
| 5313                    | 14,01 | 30,43                   | 50,0                    | 7362       | 46495            | 46495        |
| 5313                    | 15,40 | 27,68                   | 45,5                    | 7588       | 48216            | 48216        |
| 6375                    | 18,56 | 27,57                   | 37,7                    | 7598       | 50211            | 50211        |
| 6906                    | 20,56 | 26,95                   | 34,0                    | 7649       | 51486            | 51486        |
| 7119                    | 23,86 | 23,94                   | 29,3                    | 7897       | 54271            | 54271        |
| 7225                    | 25,19 | 23,02                   | 27,8                    | 7974       | 55283            | 55283        |

## IB153

| $Mn_2$<br>[Nm] | i      | $Pn_1$<br>[kW] | n2<br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|----------------|--------|----------------|-------------|------------|------------------|--------------|
| 8500           | 28,23  | 24,16          | 24,8        | 7879       | 55940            | 55940        |
| 8500           | 30,35  | 22,47          | 23,1        | 8018       | 57593            | 57593        |
| 8500           | 33,63  | 20,28          | 20,8        | 8200       | 60009            | 60009        |
| 8500           | 35,02  | 19,48          | 20,0        | 8266       | 60981            | 60981        |
| 8500           | 38,81  | 17,57          | 18,0        | 8423       | 63514            | 63514        |
| 8500           | 42,30  | 16,13          | 16,6        | 8543       | 65000            | 65000        |
| 8500           | 47,53  | 14,35          | 14,7        | 8690       | 65000            | 65000        |
| 8500           | 50,56  | 13,49          | 13,8        | 8761       | 65000            | 65000        |
| 8500           | 54,64  | 12,48          | 12,8        | 8844       | 65000            | 65000        |
| 8500           | 57,27  | 11,91          | 12,2        | 8891       | 65000            | 65000        |
| 8500           | 60,92  | 11,19          | 11,5        | 8950       | 65000            | 65000        |
| 8500           | 63,47  | 10,75          | 11,0        | 8987       | 65000            | 65000        |
| 8500           | 71,15  | 9,59           | 9,8         | 9083       | 65000            | 65000        |
| 8500           | 77,22  | 8,83           | 9,1         | 9145       | 65000            | 65000        |
| 8500           | 83,89  | 8,13           | 8,3         | 9203       | 65000            | 65000        |
| 8500           | 87,65  | 7,78           | 8,0         | 9232       | 65000            | 65000        |
| 8500           | 93,05  | 7,33           | 7,5         | 9269       | 65000            | 65000        |
| 8500           | 103,12 | 6,61           | 6,8         | 9329       | 65000            | 65000        |
| 8500           | 123,88 | 5,51           | 5,7         | 9420       | 65000            | 65000        |
| 8500           | 134,27 | 5,08           | 5,2         | 9455       | 65000            | 65000        |
| 8500           | 149,26 | 4,57           | 4,7         | 9497       | 65000            | 65000        |
| 8500           | 165,42 | 4,12           | 4,2         | 9534       | 65000            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | i     | $Pn_1$<br>[kW] | n2<br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|----------------|-------|----------------|-------------|------------|------------------|--------------|
| 7225           | 8,89  | 65,20          | 78,7        | 6870       | 60316            | 60316        |
| 8394           | 10,58 | 63,69          | 66,2        | 6950       | 62569            | 62569        |
| 8181           | 11,87 | 55,31          | 59,0        | 7393       | 65940            | 65000        |
| 9350           | 12,81 | 58,57          | 54,6        | 7221       | 65940            | 65000        |
| 10200          | 14,08 | 58,11          | 49,7        | 7245       | 67071            | 65000        |
| 10625          | 15,52 | 54,93          | 45,1        | 7413       | 69097            | 65000        |
| 10519          | 16,39 | 51,51          | 42,7        | 7594       | 70864            | 65000        |
| 11050          | 18,02 | 49,21          | 38,9        | 7715       | 72773            | 65000        |
| 11369          | 19,96 | 45,71          | 35,1        | 7901       | 75377            | 65000        |
| 11050          | 21,94 | 40,41          | 31,9        | 8181       | 78965            | 65000        |
| 11156          | 24,17 | 37,03          | 29,0        | 8360       | 80000            | 65000        |
| 11794          | 26,58 | 35,61          | 26,3        | 8435       | 80000            | 65000        |
| 10838          | 28,80 | 30,19          | 24,3        | 8721       | 80000            | 65000        |
| 12219          | 30,92 | 31,71          | 22,6        | 8641       | 80000            | 65000        |
| 12644          | 34,25 | 29,62          | 20,4        | 8752       | 80000            | 65000        |
| 13069          | 37,66 | 27,84          | 18,6        | 8846       | 80000            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | $i$    | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | $Fr_1$<br>[N] | $Fr_2$<br>D-S-P [N] | $Fr_2$<br>C [N] |
|----------------|--------|----------------|----------------|---------------|---------------------|-----------------|
| 13494          | 40,65  | 26,63          | 17,2           | 8909          | 80000               | 65000           |
| 12750          | 45,09  | 22,69          | 15,5           | 9118          | 80000               | 65000           |
| 13813          | 51,00  | 21,73          | 13,7           | 9169          | 80000               | 65000           |
| 13813          | 53,63  | 20,67          | 13,1           | 9225          | 80000               | 65000           |
| 13813          | 58,97  | 18,80          | 11,9           | 9324          | 80000               | 65000           |
| 13813          | 69,78  | 15,88          | 10,0           | 9478          | 80000               | 65000           |
| 13813          | 76,72  | 14,45          | 9,1            | 9554          | 80000               | 65000           |
| 13813          | 87,54  | 12,66          | 8,0            | 9648          | 80000               | 65000           |
| 13813          | 96,25  | 11,52          | 7,3            | 9709          | 80000               | 65000           |
| 13813          | 103,93 | 10,66          | 6,7            | 9754          | 80000               | 65000           |
| 13813          | 114,27 | 9,70           | 6,1            | 9805          | 80000               | 65000           |
| 13813          | 126,29 | 8,78           | 5,5            | 9854          | 80000               | 65000           |
| 13813          | 138,85 | 7,98           | 5,0            | 9896          | 80000               | 65000           |
| 13813          | 154,83 | 7,16           | 4,5            | 9939          | 80000               | 65000           |

## IBA42

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 97                      | 7,62  | 0,69                    | 65,7                    | 373        | -                | 2557         |
| 97                      | 10,62 | 0,49                    | 47,1                    | 355        | -                | 2857         |
| 97                      | 12,95 | 0,40                    | 38,6                    | 406        | -                | 3052         |
| 97                      | 14,46 | 0,36                    | 34,6                    | 443        | -                | 3166         |
| 129                     | 16,47 | 0,42                    | 30,4                    | 579        | -                | 3307         |
| 129                     | 22,97 | 0,30                    | 21,8                    | 355        | -                | 3695         |
| 129                     | 28,00 | 0,25                    | 17,9                    | 406        | -                | 3946         |
| 129                     | 31,27 | 0,22                    | 16,0                    | 443        | -                | 4000         |
| 129                     | 33,78 | 0,21                    | 14,8                    | 458        | -                | 4000         |
| 129                     | 47,12 | 0,15                    | 10,6                    | 355        | -                | 4000         |
| 129                     | 57,43 | 0,12                    | 8,7                     | 406        | -                | 4000         |
| 118                     | 64,13 | 0,10                    | 7,8                     | 406        | -                | 4000         |
| 118                     | 78,17 | 0,08                    | 6,4                     | 406        | -                | 4000         |

## IBA52

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 172                     | 7,91  | 1,17                    | 63,2                    | 373        | -                | 2775         |
| 172                     | 9,46  | 0,98                    | 52,9                    | 414        | -                | 2945         |
| 172                     | 11,57 | 0,80                    | 43,2                    | 405        | -                | 3150         |
| 172                     | 14,63 | 0,64                    | 34,2                    | 392        | -                | 3405         |
| 215                     | 17,11 | 0,68                    | 29,2                    | 529        | -                | 3588         |
| 215                     | 20,46 | 0,57                    | 24,4                    | 414        | -                | 3809         |
| 215                     | 25,03 | 0,46                    | 20,0                    | 405        | -                | 4000         |
| 215                     | 31,63 | 0,37                    | 15,8                    | 392        | -                | 4000         |
| 215                     | 35,10 | 0,33                    | 14,2                    | 446        | -                | 4000         |
| 215                     | 41,97 | 0,28                    | 11,9                    | 414        | -                | 4000         |
| 237                     | 51,34 | 0,25                    | 9,7                     | 445        | -                | 4000         |
| 215                     | 64,87 | 0,18                    | 7,7                     | 356        | -                | 4000         |
| 215                     | 79,07 | 0,15                    | 6,3                     | 406        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 237                     | 73,70  | 0,18                    | 6,8                     | 472        | -                | 4000         |
| 237                     | 93,33  | 0,14                    | 5,4                     | 472        | -                | 4000         |
| 237                     | 111,61 | 0,12                    | 4,5                     | 472        | -                | 4000         |
| 237                     | 136,53 | 0,10                    | 3,7                     | 472        | -                | 4000         |
| 237                     | 172,53 | 0,08                    | 2,9                     | 472        | -                | 4000         |
| 237                     | 197,11 | 0,07                    | 2,5                     | 472        | -                | 4000         |
| 237                     | 249,08 | 0,05                    | 2,0                     | 472        | -                | 4000         |

## IBA53

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 237                     | 271,16 | 0,05                    | 1,8                     | 472        | -                | 4000         |
| 237                     | 342,65 | 0,04                    | 1,5                     | 472        | -                | 4000         |

## IBA72

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 376                     | 8,36  | 2,43                    | 59,8                    | 664        | 7159             | 3579         |
| 376                     | 10,06 | 2,02                    | 49,7                    | 685        | 7615             | 3808         |
| 376                     | 12,44 | 1,63                    | 40,2                    | 667        | 8174             | 4087         |
| 452                     | 14,91 | 1,64                    | 33,5                    | 826        | 8682             | 4341         |
| 452                     | 17,94 | 1,36                    | 27,9                    | 685        | 9235             | 4618         |
| 452                     | 22,19 | 1,10                    | 22,5                    | 667        | 9913             | 4957         |
| 452                     | 27,45 | 0,89                    | 18,2                    | 667        | 10000            | 5321         |
| 452                     | 33,04 | 0,74                    | 15,1                    | 685        | 10000            | 5500         |
| 430                     | 40,87 | 0,57                    | 12,2                    | 635        | 10000            | 5500         |
| 376                     | 45,64 | 0,45                    | 10,9                    | 646        | 10000            | 5500         |
| 376                     | 54,94 | 0,37                    | 9,1                     | 685        | 10000            | 5500         |
| 376                     | 67,96 | 0,30                    | 7,4                     | 667        | 10000            | 5500         |

## IBA73

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 484                     | 43,89  | 0,63                    | 11,4                    | 330        | 10000            | 5500         |
| 484                     | 52,83  | 0,52                    | 9,5                     | 411        | 10000            | 5500         |
| 484                     | 65,35  | 0,42                    | 7,7                     | 400        | 10000            | 5500         |
| 484                     | 80,83  | 0,34                    | 6,2                     | 400        | 10000            | 5500         |
| 484                     | 97,29  | 0,28                    | 5,1                     | 411        | 10000            | 5500         |
| 484                     | 120,34 | 0,23                    | 4,2                     | 400        | 10000            | 5500         |
| 484                     | 149,73 | 0,18                    | 3,3                     | 398        | 10000            | 5500         |
| 484                     | 180,23 | 0,15                    | 2,8                     | 411        | 10000            | 5500         |
| 484                     | 222,93 | 0,12                    | 2,2                     | 400        | 10000            | 5500         |
| 484                     | 260,20 | 0,11                    | 1,9                     | 424        | 10000            | 5500         |
| 484                     | 321,85 | 0,09                    | 1,6                     | 400        | 10000            | 5500         |
| 484                     | 357,95 | 0,08                    | 1,4                     | 445        | 10000            | 5500         |
| 484                     | 442,76 | 0,06                    | 1,1                     | 400        | 10000            | 5500         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i    | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|------|-------------------------|-------------------------|------------|------------------|--------------|
| 312                     | 5,71 | 3,11                    | 87,5                    | 248        | 10312            | 2946         |

## IB063

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 366                     | 6,88   | 3,03                    | 72,7                    | 273        | 10809            | 3088         |
| 376                     | 7,32   | 2,93                    | 68,3                    | 303        | 11020            | 3149         |
| 495                     | 9,16   | 3,08                    | 54,6                    | 258        | 11462            | 3275         |
| 559                     | 10,26  | 3,11                    | 48,7                    | 250        | 11694            | 3341         |
| 581                     | 11,03  | 3,00                    | 45,3                    | 281        | 11938            | 3411         |
| 624                     | 12,35  | 2,88                    | 40,5                    | 319        | 12000            | 3514         |
| 634                     | 13,15  | 2,75                    | 38,0                    | 358        | 12000            | 3590         |
| 634                     | 15,18  | 2,38                    | 33,0                    | 469        | 12000            | 3804         |
| 645                     | 17,00  | 2,16                    | 29,4                    | 535        | 12000            | 3966         |
| 645                     | 22,39  | 1,64                    | 22,3                    | 693        | 12000            | 4423         |
| 645                     | 26,09  | 1,41                    | 19,2                    | 764        | 12000            | 4695         |
| 645                     | 28,03  | 1,31                    | 17,8                    | 793        | 12000            | 4827         |
| 645                     | 33,43  | 1,10                    | 15,0                    | 858        | 12000            | 5166         |
| 645                     | 38,58  | 0,95                    | 13,0                    | 902        | 12000            | 5456         |
| 645                     | 43,22  | 0,85                    | 11,6                    | 933        | 12000            | 5696         |
| 645                     | 50,81  | 0,72                    | 9,8                     | 972        | 12000            | 6054         |
| 645                     | 56,93  | 0,65                    | 8,8                     | 995        | 12000            | 6317         |
| 645                     | 69,16  | 0,53                    | 7,2                     | 1030       | 12000            | 6792         |
| 645                     | 77,48  | 0,47                    | 6,5                     | 1047       | 12000            | 7083         |
| 645                     | 90,33  | 0,41                    | 5,5                     | 1068       | 12000            | 7494         |
| 645                     | 101,20 | 0,36                    | 4,9                     | 1081       | 12000            | 7812         |
| 645                     | 111,74 | 0,33                    | 4,5                     | 1091       | 12000            | 8000         |
| 645                     | 124,20 | 0,30                    | 4,0                     | 1101       | 12000            | 8000         |
| 645                     | 139,15 | 0,26                    | 3,6                     | 1111       | 12000            | 8000         |
| 645                     | 157,42 | 0,23                    | 3,2                     | 1120       | 12000            | 8000         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 538                     | 7,81  | 3,93                    | 64,0                    | 1587       | 17494            | 4998         |
| 645                     | 8,62  | 4,27                    | 58,0                    | 1464       | 17713            | 5061         |
| 699                     | 10,49 | 3,80                    | 47,6                    | 1633       | 18000            | 5387         |
| 806                     | 11,59 | 3,97                    | 43,1                    | 1571       | 18000            | 5469         |
| 871                     | 14,43 | 3,44                    | 34,6                    | 1761       | 18000            | 5875         |
| 914                     | 16,60 | 3,14                    | 30,1                    | 1869       | 18000            | 6150         |
| 914                     | 18,32 | 2,84                    | 27,3                    | 1976       | 18000            | 6390         |
| 914                     | 22,82 | 2,28                    | 21,9                    | 2177       | 18000            | 6949         |
| 914                     | 26,71 | 1,95                    | 18,7                    | 2297       | 18000            | 7376         |
| 914                     | 29,50 | 1,77                    | 16,9                    | 2364       | 18000            | 7657         |
| 914                     | 31,80 | 1,64                    | 15,7                    | 2410       | 18000            | 7875         |
| 914                     | 34,49 | 1,51                    | 14,5                    | 2456       | 18000            | 8118         |
| 914                     | 39,60 | 1,32                    | 12,6                    | 2500       | 18000            | 8546         |

## IB083

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 914                     | 42,95  | 1,21                    | 11,6                    | 2500       | 18000            | 8807         |
| 914                     | 45,44  | 1,15                    | 11,0                    | 2500       | 18000            | 8992         |
| 914                     | 51,19  | 1,02                    | 9,8                     | 2500       | 18000            | 9395         |
| 914                     | 55,52  | 0,94                    | 9,0                     | 2500       | 18000            | 9679         |
| 914                     | 59,96  | 0,87                    | 8,3                     | 2500       | 18000            | 9955         |
| 914                     | 63,74  | 0,82                    | 7,8                     | 2500       | 18000            | 10179        |
| 914                     | 69,14  | 0,75                    | 7,2                     | 2500       | 18000            | 10485        |
| 914                     | 73,14  | 0,71                    | 6,8                     | 2500       | 18000            | 10701        |
| 914                     | 80,76  | 0,65                    | 6,2                     | 2500       | 18000            | 11092        |
| 914                     | 92,19  | 0,57                    | 5,4                     | 2500       | 18000            | 11634        |
| 914                     | 100,57 | 0,52                    | 5,0                     | 2500       | 18000            | 12000        |
| 914                     | 105,29 | 0,49                    | 4,8                     | 2500       | 18000            | 12000        |
| 914                     | 116,25 | 0,45                    | 4,3                     | 2500       | 18000            | 12000        |
| 914                     | 126,76 | 0,41                    | 3,9                     | 2500       | 18000            | 12000        |
| 914                     | 144,77 | 0,36                    | 3,5                     | 2500       | 18000            | 12000        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 860                     | 8,13  | 6,04                    | 61,5                    | 935        | 21643            | 6184         |
| 968                     | 8,97  | 6,15                    | 55,8                    | 895        | 22000            | 6323         |
| 1075                    | 10,92 | 5,61                    | 45,8                    | 1078       | 22000            | 6713         |
| 1075                    | 12,05 | 5,09                    | 41,5                    | 1256       | 22000            | 6963         |
| 1290                    | 14,99 | 4,91                    | 33,4                    | 1317       | 22000            | 7372         |
| 1505                    | 17,27 | 4,97                    | 28,9                    | 1296       | 22000            | 7600         |
| 1505                    | 19,06 | 4,50                    | 26,2                    | 1454       | 22000            | 7891         |
| 1505                    | 23,70 | 3,62                    | 21,1                    | 1753       | 22000            | 8572         |
| 1613                    | 26,51 | 3,47                    | 18,9                    | 1805       | 22000            | 8854         |
| 1720                    | 30,55 | 3,21                    | 16,4                    | 1893       | 22000            | 9254         |
| 1828                    | 33,07 | 3,15                    | 15,1                    | 1912       | 22000            | 9447         |
| 1828                    | 35,87 | 2,91                    | 13,9                    | 1996       | 22000            | 9745         |
| 1828                    | 41,12 | 2,53                    | 12,2                    | 2122       | 22000            | 10264        |
| 1828                    | 44,61 | 2,34                    | 11,2                    | 2189       | 22000            | 10584        |
| 1828                    | 47,28 | 2,20                    | 10,6                    | 2234       | 22000            | 10819        |
| 1828                    | 50,24 | 2,07                    | 9,9                     | 2278       | 22000            | 11068        |
| 1828                    | 53,02 | 1,97                    | 9,4                     | 2315       | 22000            | 11293        |
| 1828                    | 58,50 | 1,78                    | 8,6                     | 2377       | 22000            | 11715        |
| 1828                    | 64,89 | 1,61                    | 7,7                     | 2436       | 22000            | 12175        |
| 1828                    | 68,58 | 1,52                    | 7,3                     | 2466       | 22000            | 12427        |
| 1828                    | 72,76 | 1,43                    | 6,9                     | 2495       | 22000            | 12701        |
| 1828                    | 78,92 | 1,32                    | 6,3                     | 2533       | 22000            | 13088        |
| 1935                    | 83,66 | 1,32                    | 6,0                     | 2534       | 22000            | 13283        |

## IB103

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1935                    | 92,31  | 1,20                    | 5,4                     | 2576       | 22000            | 13773        |
| 1935                    | 105,44 | 1,05                    | 4,7                     | 2626       | 22000            | 14463        |
| 1935                    | 114,80 | 0,96                    | 4,4                     | 2655       | 22000            | 14920        |
| 1935                    | 120,42 | 0,92                    | 4,2                     | 2670       | 22000            | 15000        |
| 1935                    | 132,87 | 0,83                    | 3,8                     | 2699       | 22000            | 15000        |
| 1935                    | 144,69 | 0,76                    | 3,5                     | 2722       | 22000            | 15000        |
| 1935                    | 165,25 | 0,67                    | 3,0                     | 2754       | 22000            | 15000        |

## IB123

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 1613                    | 7,97   | 11,54                   | 62,8                    | 2453       | 26584            | 7595         |
| 1935                    | 9,62   | 11,47                   | 52,0                    | 2462       | 27285            | 7796         |
| 2150                    | 10,33  | 11,87                   | 48,4                    | 2410       | 27163            | 7761         |
| 2150                    | 12,48  | 9,83                    | 40,1                    | 2683       | 29542            | 8441         |
| 2258                    | 13,84  | 9,30                    | 36,1                    | 2754       | 30000            | 8692         |
| 2258                    | 15,38  | 8,37                    | 32,5                    | 2878       | 30000            | 9104         |
| 2365                    | 18,58  | 7,26                    | 26,9                    | 3027       | 30000            | 9738         |
| 2688                    | 20,61  | 7,44                    | 24,3                    | 3004       | 30000            | 9762         |
| 3010                    | 22,78  | 7,54                    | 21,9                    | 2990       | 30000            | 9786         |
| 3010                    | 25,89  | 6,63                    | 19,3                    | 3112       | 30000            | 10378        |
| 3010                    | 27,51  | 6,24                    | 18,2                    | 3164       | 30000            | 10668        |
| 3010                    | 30,79  | 5,57                    | 16,2                    | 3253       | 30000            | 11223        |
| 3010                    | 31,26  | 5,49                    | 16,0                    | 3265       | 30000            | 11299        |
| 3010                    | 34,68  | 4,95                    | 14,4                    | 3337       | 30000            | 11830        |
| 3010                    | 40,53  | 4,24                    | 12,3                    | 3433       | 30000            | 12663        |
| 3225                    | 44,89  | 4,10                    | 11,1                    | 3452       | 30000            | 12950        |
| 3440                    | 49,80  | 3,94                    | 10,0                    | 3473       | 30000            | 13267        |
| 3440                    | 54,30  | 3,61                    | 9,2                     | 3517       | 30000            | 13782        |
| 3440                    | 59,36  | 3,31                    | 8,4                     | 3558       | 30000            | 14327        |
| 3548                    | 62,59  | 3,23                    | 8,0                     | 3568       | 30000            | 14518        |
| 3548                    | 69,43  | 2,91                    | 7,2                     | 3610       | 30000            | 15187        |
| 3763                    | 74,42  | 2,88                    | 6,7                     | 3614       | 30000            | 15364        |
| 3763                    | 80,04  | 2,68                    | 6,2                     | 3642       | 30000            | 15858        |
| 3763                    | 89,87  | 2,39                    | 5,6                     | 3681       | 30000            | 16668        |
| 3763                    | 99,70  | 2,15                    | 5,0                     | 3712       | 30000            | 17421        |
| 3763                    | 106,65 | 2,01                    | 4,7                     | 3731       | 30000            | 17925        |
| 3763                    | 119,60 | 1,79                    | 4,2                     | 3761       | 30000            | 18805        |
| 3763                    | 129,96 | 1,65                    | 3,9                     | 3780       | 30000            | 19466        |
| 3763                    | 144,43 | 1,49                    | 3,5                     | 3802       | 30000            | 20000        |
| 3763                    | 160,23 | 1,34                    | 3,1                     | 3822       | 30000            | 20000        |
| 3763                    | 180,40 | 1,19                    | 2,8                     | 3842       | 30000            | 20000        |



## IB143

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 3225                    | 10,84  | 16,97                   | 46,1                    | 2171       | 24968            | 24968        |
| 3333                    | 11,87  | 16,02                   | 42,1                    | 2274       | 25696            | 25696        |
| 3333                    | 14,49  | 13,12                   | 34,5                    | 2587       | 28165            | 28165        |
| 3440                    | 17,04  | 11,51                   | 29,3                    | 2760       | 29959            | 29959        |
| 3870                    | 18,66  | 11,83                   | 26,8                    | 2726       | 29831            | 29831        |
| 4300                    | 21,00  | 11,68                   | 23,8                    | 2742       | 30135            | 30135        |
| 4730                    | 22,77  | 11,85                   | 22,0                    | 2724       | 29954            | 29954        |
| 4945                    | 25,63  | 11,00                   | 19,5                    | 2815       | 31059            | 31059        |
| 4945                    | 27,44  | 10,28                   | 18,2                    | 2894       | 32128            | 32128        |
| 5053                    | 30,05  | 9,59                    | 16,6                    | 2968       | 33240            | 33240        |
| 5053                    | 33,01  | 8,73                    | 15,2                    | 3060       | 34796            | 34796        |
| 5160                    | 36,67  | 8,02                    | 13,6                    | 3137       | 36252            | 36252        |
| 5160                    | 40,29  | 7,30                    | 12,4                    | 3214       | 37914            | 37914        |
| 5160                    | 44,16  | 6,66                    | 11,3                    | 3283       | 39586            | 39586        |
| 5375                    | 48,35  | 6,34                    | 10,3                    | 3318       | 40000            | 40000        |
| 5375                    | 53,16  | 5,77                    | 9,4                     | 3380       | 40000            | 40000        |
| 5375                    | 54,63  | 5,61                    | 9,2                     | 3397       | 40000            | 40000        |
| 5375                    | 59,02  | 5,19                    | 8,5                     | 3442       | 40000            | 40000        |
| 5375                    | 64,88  | 4,72                    | 7,7                     | 3493       | 40000            | 40000        |
| 5375                    | 70,43  | 4,35                    | 7,1                     | 3533       | 40000            | 40000        |
| 5375                    | 77,12  | 3,98                    | 6,5                     | 3573       | 40000            | 40000        |
| 5375                    | 85,54  | 3,58                    | 5,8                     | 3616       | 40000            | 40000        |
| 5375                    | 94,13  | 3,26                    | 5,3                     | 3651       | 40000            | 40000        |
| 5375                    | 105,83 | 2,90                    | 4,7                     | 3690       | 40000            | 40000        |
| 5375                    | 111,94 | 2,74                    | 4,5                     | 3707       | 40000            | 40000        |
| 5375                    | 124,62 | 2,46                    | 4,0                     | 3737       | 40000            | 40000        |
| 5375                    | 136,44 | 2,25                    | 3,7                     | 3760       | 40000            | 40000        |
| 5375                    | 149,59 | 2,05                    | 3,3                     | 3781       | 40000            | 40000        |
| 5375                    | 166,53 | 1,84                    | 3,0                     | 3804       | 40000            | 40000        |
| 5375                    | 187,24 | 1,64                    | 2,7                     | 3826       | 40000            | 40000        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 4838                    | 10,49 | 26,30                   | 47,6                    | 6819       | 48046            | 48046        |
| 4838                    | 12,64 | 21,82                   | 39,5                    | 7339       | 51544            | 51544        |
| 5375                    | 14,01 | 21,88                   | 35,7                    | 7332       | 52779            | 52779        |
| 5375                    | 15,40 | 19,91                   | 32,5                    | 7561       | 54701            | 54701        |
| 6450                    | 18,56 | 19,83                   | 26,9                    | 7571       | 57095            | 57095        |
| 6988                    | 20,56 | 19,38                   | 24,3                    | 7623       | 58602            | 58602        |
| 7203                    | 23,86 | 17,22                   | 21,0                    | 7874       | 61748            | 61748        |
| 7310                    | 25,19 | 16,55                   | 19,9                    | 7951       | 62895            | 62895        |

## IB153

| Mn <sub>2</sub><br>[Nm] | i      | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|--------|-------------------------|-------------------------|------------|------------------|--------------|
| 8600                    | 28,23  | 17,37                   | 17,7                    | 7856       | 63827            | 63827        |
| 8600                    | 30,35  | 16,16                   | 16,5                    | 7997       | 65000            | 65000        |
| 8600                    | 33,63  | 14,58                   | 14,9                    | 8180       | 65000            | 65000        |
| 8600                    | 35,02  | 14,01                   | 14,3                    | 8247       | 65000            | 65000        |
| 8600                    | 38,81  | 12,64                   | 12,9                    | 8406       | 65000            | 65000        |
| 8600                    | 42,30  | 11,60                   | 11,8                    | 8527       | 65000            | 65000        |
| 8600                    | 47,53  | 10,32                   | 10,5                    | 8676       | 65000            | 65000        |
| 8600                    | 50,56  | 9,70                    | 9,9                     | 8748       | 65000            | 65000        |
| 8600                    | 54,64  | 8,98                    | 9,2                     | 8832       | 65000            | 65000        |
| 8600                    | 57,27  | 8,56                    | 8,7                     | 8880       | 65000            | 65000        |
| 8600                    | 60,92  | 8,05                    | 8,2                     | 8939       | 65000            | 65000        |
| 8600                    | 63,47  | 7,73                    | 7,9                     | 8977       | 65000            | 65000        |
| 8600                    | 71,15  | 6,89                    | 7,0                     | 9074       | 65000            | 65000        |
| 8600                    | 77,22  | 6,35                    | 6,5                     | 9137       | 65000            | 65000        |
| 8600                    | 83,89  | 5,85                    | 6,0                     | 9195       | 65000            | 65000        |
| 8600                    | 87,65  | 5,60                    | 5,7                     | 9225       | 65000            | 65000        |
| 8600                    | 93,05  | 5,27                    | 5,4                     | 9262       | 65000            | 65000        |
| 8600                    | 103,12 | 4,76                    | 4,8                     | 9322       | 65000            | 65000        |
| 8600                    | 123,88 | 3,96                    | 4,0                     | 9415       | 65000            | 65000        |
| 8600                    | 134,27 | 3,65                    | 3,7                     | 9450       | 65000            | 65000        |
| 8600                    | 149,26 | 3,29                    | 3,4                     | 9493       | 65000            | 65000        |
| 8600                    | 165,42 | 2,97                    | 3,0                     | 9530       | 65000            | 65000        |

## IB163

| Mn <sub>2</sub><br>[Nm] | i     | Pn <sub>1</sub><br>[kW] | n <sub>2</sub><br>[rpm] | Fr1<br>[N] | Fr2<br>D-S-P [N] | Fr2<br>C [N] |
|-------------------------|-------|-------------------------|-------------------------|------------|------------------|--------------|
| 7310                    | 8,89  | 46,89                   | 56,2                    | 6830       | 68733            | 65000        |
| 8493                    | 10,58 | 45,80                   | 47,3                    | 6910       | 71467            | 65000        |
| 8278                    | 11,87 | 39,77                   | 42,1                    | 7359       | 75194            | 65000        |
| 9460                    | 12,81 | 42,12                   | 39,0                    | 7184       | 75410            | 65000        |
| 10320                   | 14,08 | 41,79                   | 35,5                    | 7209       | 76831            | 65000        |
| 10750                   | 15,52 | 39,50                   | 32,2                    | 7379       | 79173            | 65000        |
| 10643                   | 16,39 | 37,04                   | 30,5                    | 7562       | 80000            | 65000        |
| 11180                   | 18,02 | 35,39                   | 27,8                    | 7685       | 80000            | 65000        |
| 11503                   | 19,96 | 32,87                   | 25,1                    | 7872       | 80000            | 65000        |
| 11180                   | 21,94 | 29,06                   | 22,8                    | 8156       | 80000            | 65000        |
| 11288                   | 24,17 | 26,63                   | 20,7                    | 8337       | 80000            | 65000        |
| 11933                   | 26,58 | 25,61                   | 18,8                    | 8413       | 80000            | 65000        |
| 10965                   | 28,80 | 21,71                   | 17,4                    | 8702       | 80000            | 65000        |
| 12363                   | 30,92 | 22,80                   | 16,2                    | 8622       | 80000            | 65000        |
| 12793                   | 34,25 | 21,30                   | 14,6                    | 8733       | 80000            | 65000        |
| 13223                   | 37,66 | 20,02                   | 13,3                    | 8828       | 80000            | 65000        |

## IB163

| $Mn_2$<br>[Nm] | $i$    | $Pn_1$<br>[kW] | $n_2$<br>[rpm] | $Fr_1$<br>[N] | $Fr_2$<br>D-S-P [N] | $Fr_2$<br>C [N] |
|----------------|--------|----------------|----------------|---------------|---------------------|-----------------|
| 13653          | 40,65  | 19,15          | 12,3           | 8893          | 80000               | 65000           |
| 12900          | 45,09  | 16,32          | 11,1           | 9104          | 80000               | 65000           |
| 13975          | 51,00  | 15,63          | 9,8            | 9155          | 80000               | 65000           |
| 13975          | 53,63  | 14,86          | 9,3            | 9212          | 80000               | 65000           |
| 13975          | 58,97  | 13,52          | 8,5            | 9312          | 80000               | 65000           |
| 13975          | 69,78  | 11,42          | 7,2            | 9468          | 80000               | 65000           |
| 13975          | 76,72  | 10,39          | 6,5            | 9545          | 80000               | 65000           |
| 13975          | 87,54  | 9,11           | 5,7            | 9641          | 80000               | 65000           |
| 13975          | 96,25  | 8,28           | 5,2            | 9702          | 80000               | 65000           |
| 13975          | 103,93 | 7,67           | 4,8            | 9747          | 80000               | 65000           |
| 13975          | 114,27 | 6,97           | 4,4            | 9799          | 80000               | 65000           |
| 13975          | 126,29 | 6,31           | 4,0            | 9848          | 80000               | 65000           |
| 13975          | 138,85 | 5,74           | 3,6            | 9891          | 80000               | 65000           |
| 13975          | 154,83 | 5,15           | 3,2            | 9935          | 80000               | 65000           |

All supplies effected by MOTOVARIO are governed exclusively by the general terms of sale that you can find on our website:

<http://www.motovario.com/eng/corporate/sales-conditions>







