

# E series



**Coaxial gear reducers and gearmotors**







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# Rossi for You



## Innovation

Rossi offers a wide range of **solutions for an evolving industry**, flexible and innovative gearboxes and gearmotors for customer tailored solutions to maximize performance and minimize the total cost of ownership.



## High quality, 3 years warranty

Our drive is to innovate and boost operations by manufacturing performing, precise, reliable and high-quality products all over the world. We are always one step forward in offering and developing solutions that can satisfy an unlimited number of application needs, even in the most demanding conditions.



## Reliability

We are a reliable company with the right flexibility and know-how to respond to worldwide market requests, in all application fields, without leaving aside our commitment for the environment and value on human safety, to protect everyone's future.



## Tools and processes

We continue to invest in new tools and processes, so our highly skilled specialist team in different fields are supporting you to find the best solution suitable for your demands, always by your side on every step of the project.



## After-sale service

Highly trained mechanics and support teams can ensure a fast and efficient after-sale service providing support worldwide.



## Digital support

Alongside our 24/7 **Rossi for You** support portal you have a suite of digital support tools enabling real time access to your order tracking, invoices, spare part tables download and contact to our service.

**70**  
YEARS

## Experience

Shaped by more than 70 years of history Rossi meets your unique needs whether you need a standard design or a customized solution.



# Global presence local service



## Local support

Sales, customer service,  
technical support, spare parts



## 17 branches\*



## Worldwide distribution network\*

A global network of subsidiaries and dealers. From design and execution to after-sales service. Rossi is always close to you: a local, reliable and flexible partner.

Alongside our 24/7 **Rossi for You** portal you have a suite of digital support tools enabling real time access to your order tracking, invoices, spare part tables download and contact to our service.



\*All contacts available on [www.rossi.com](http://www.rossi.com)





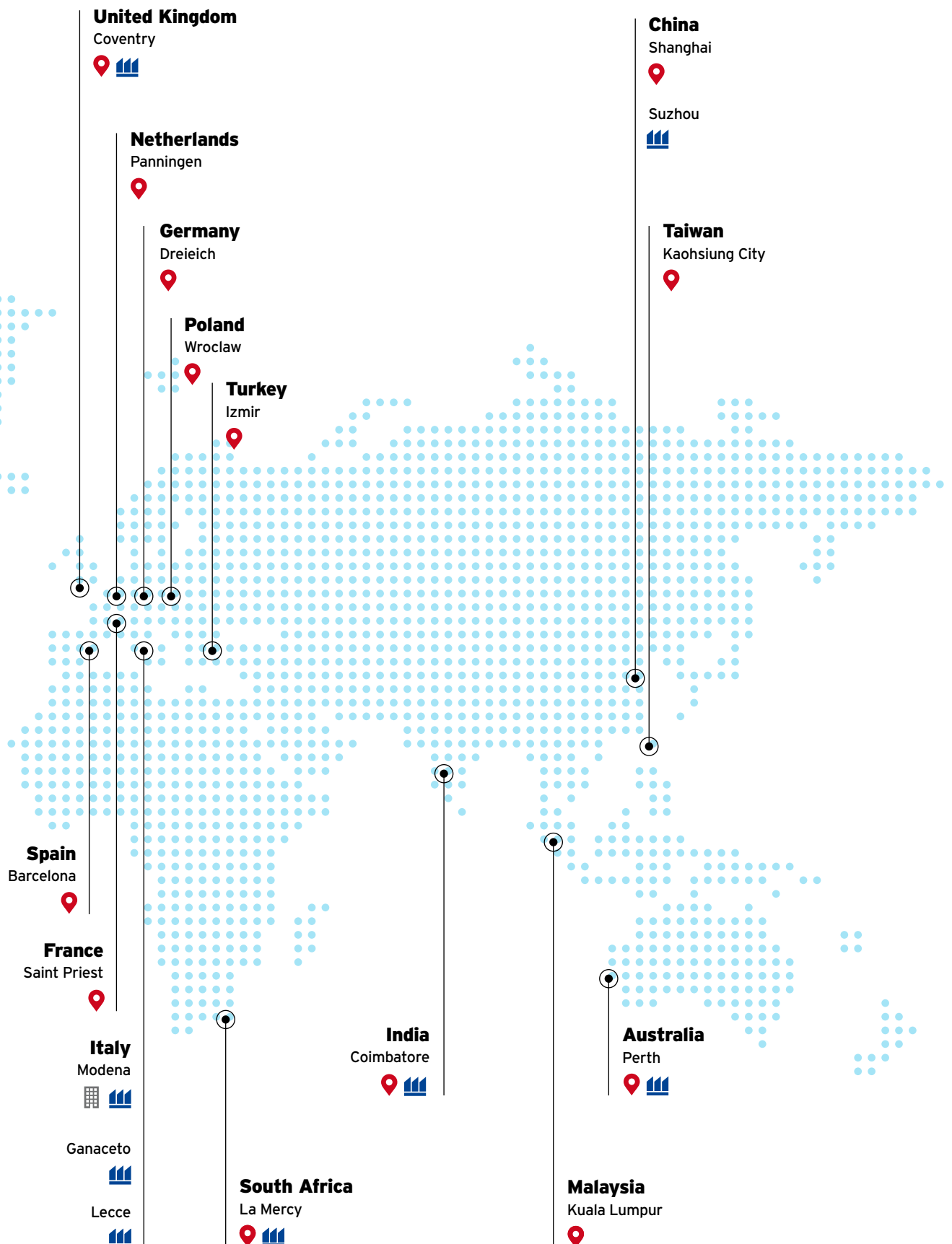
Main offices



Affiliated companies



Production facilities/Assembly plants



# Features, benefits and range





## Maximum performance

We drive the heaviest applications  
worldwide



## Sustainability

We care  
about environment



## Modular system

For cost-effective  
and high quality solutions



## Innovation

We are constantly thinking forward,  
solutions for an evolving industry



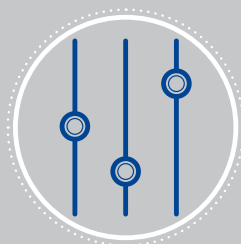
## Digitalization

**Rossi for You** is always at your disposal  
for any info



## Know-how

We support you through  
interdisciplinary know-how



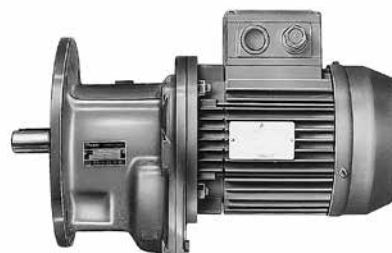
## Customization

Cost-effective solutions starting from  
standard products

## Coaxial gear reducers and gearmotors



**2I, 3I 32 ... 41\***  
with 2, 3 cylindrical  
gear pairs



**2I, 3I 50 ... 180**  
with 2, 3 cylindrical  
gear pairs



## Combined gear reducer and gearmotor units



**MR 3I + R 2I, 3I**



**MR 3I + MR 2I, 3I**

\* gearmotors only

# Symbols and units of measure

Symbols used in the catalogue and formulae, in alphabetical order, with relevant units of measure.

| Symbol                 | Definition              | Units of measure   |                       |                         | Notes                                                           |
|------------------------|-------------------------|--------------------|-----------------------|-------------------------|-----------------------------------------------------------------|
|                        |                         | In catalog         | In the formulae       |                         |                                                                 |
|                        |                         |                    | Technical System      | SI <sup>1)</sup> System |                                                                 |
|                        | dimensions              | mm                 | –                     |                         |                                                                 |
| <i>a</i>               | acceleration            | –                  | m/s <sup>2</sup>      |                         |                                                                 |
| <i>d</i>               | diameter                | –                  | m                     |                         |                                                                 |
| <i>f</i>               | frequency               | Hz                 | Hz                    |                         |                                                                 |
| <i>f</i> <sub>s</sub>  | service factor          |                    |                       |                         |                                                                 |
| <i>f</i> <sub>t</sub>  | thermal factor          |                    |                       |                         |                                                                 |
| <i>F</i>               | force                   | –                  | kgf                   | N <sup>2)</sup>         | 1 kgf ≈ 9,81 N ≈ 0,981 daN                                      |
| <i>F</i> <sub>r</sub>  | radial load             | daN                | –                     |                         |                                                                 |
| <i>F</i> <sub>a</sub>  | axial loads             | daN                | –                     |                         |                                                                 |
| <i>g</i>               | acceleration of gravity | –                  | m/s <sup>2</sup>      |                         | normal value 9,81 m/s <sup>2</sup>                              |
| <i>G</i>               | weight (weight force)   | –                  | kgf                   | N                       |                                                                 |
| <i>Gd</i> <sup>2</sup> | dynamic moment          | –                  | kgf m <sup>2</sup>    | –                       |                                                                 |
| <i>i</i>               | transmission ratio      |                    |                       |                         | $i = \frac{n_1}{n_2}$                                           |
| <i>I</i>               | electric current        | –                  | A                     |                         |                                                                 |
| <i>J</i>               | moment of inertia       | kg m <sup>2</sup>  | –                     | kg m <sup>2</sup>       |                                                                 |
| <i>L</i> <sub>h</sub>  | bearing life            | h                  | –                     |                         |                                                                 |
| <i>m</i>               | mass                    | kg                 | kgf s <sup>2</sup> /m | kg <sup>3)</sup>        |                                                                 |
| <i>M</i>               | torque                  | daN m              | kgf m                 | N m                     | 1 kgf m ≈ 9,81 N m ≈ 0,981 daN m                                |
| <i>n</i>               | speed                   | min <sup>-1</sup>  | giri/min<br>rev/min   | –                       | 1 min <sup>-1</sup> ≈ 0,105 rad/s                               |
| <i>P</i>               | power                   | kW                 | CV                    | W                       | 1 CV ≈ 736 W ≈ 0,736 kW                                         |
| <i>P</i> <sub>t</sub>  | thermal power           | kW                 | –                     |                         |                                                                 |
| <i>r</i>               | radius                  | –                  | m                     |                         |                                                                 |
| <i>R</i>               | variation ratio         |                    |                       |                         | $R = \frac{n_{2 \max}}{n_{2 \min}}$                             |
| <i>s</i>               | distance                | –                  | m                     |                         |                                                                 |
| <i>t</i>               | Celsius temperature     | °C                 | –                     |                         |                                                                 |
| <i>t</i>               | time                    | s<br>min<br>h<br>d | s                     |                         | 1 min = 60 s<br>1 h = 60 min = 3 600 s<br>1 d = 24 h = 86 400 s |
| <i>U</i>               | voltage                 | V                  | V                     |                         |                                                                 |
| <i>v</i>               | velocity                | –                  | m/s                   |                         |                                                                 |
| <i>W</i>               | work, energy            | MJ                 | kgf m                 | J <sup>4)</sup>         |                                                                 |
| <i>z</i>               | frequency of starting   | starts/h           | –                     |                         |                                                                 |
| <i>α</i>               | angular acceleration    | –                  | rad/s <sup>2</sup>    |                         |                                                                 |
| <i>η</i>               | efficiency              |                    |                       |                         |                                                                 |
| <i>η</i> <sub>s</sub>  | static efficiency       |                    |                       |                         |                                                                 |
| <i>μ</i>               | friction coefficient    |                    |                       |                         |                                                                 |
| <i>ω</i>               | plane angle             | °                  | rad                   |                         | 1 rev = 2 π rad<br>$1^\circ = \frac{\pi}{180} \text{ rad}$      |
| <i>ω</i>               | angular velocity        | –                  | –                     | rad/s                   | 1 rad/s ≈ 9,55 min <sup>-1</sup>                                |

Additional indexes and other signs

| Ind. | Definition                           |
|------|--------------------------------------|
| max  | maximum                              |
| min  | minimum                              |
| N    | nominal                              |
| 1    | relating to high speed shaft (input) |
| 2    | relating to low speed shaft (output) |
| ÷    | from ... to                          |
| ≈    | approximately equal to               |
| ≥    | greater than or equal to             |
| ≤    | less than or equal to                |

1) SI are the initials of the International Unit System, defined and approved by the General Conference on Weights and Measures as the only system of units of measure.  
Ref. CNR UNI 10 003-84 (DIN 1 301-93 NF X 02.004, BS 5 555-93, ISO 1 000-92).

UNI: Ente Nazionale Italiano di Unificazione.

DIN: Deutscher Normenausschuss (DNA).

NF: Association Française de Normalisation (AFNOR).

BS: British Standards Institution (BSI).

ISO: International Organization for Standardization.

2) Newton [N] is the force imparting an acceleration of 1 m/s<sup>2</sup> to a mass of 1 kg.

3) Kilogramme [kg] is the mass of the prototype kept at Sèvres (i.e. 1 dm<sup>3</sup> of distilled water at 4 °C).

4) Joule [J] is the work done when the point of application of a force of 1 N is displaced through a distance of 1 m.

**Universal mounting** (patented; lower feet, upper feet, B5 flange with low speed shaft end shifted forward) excluding sizes 32 ... 41.

**Closer intermediate size steps** (for size pairs, standard and strengthened, only one housing and many components in common, changing only the ones allowing higher performances of greater size; improved modular construction) **offering sizes closer to every application need and maintaining nearly the same component number for maximum economy of solution; same mounting dimensions for the size pairs**

**Rigid and precise single-piece cast iron housing** (excluding sizes 32 ... 41)

**Generously proportioned bearings of low speed shaft** (bearings and shaft) **in order to withstand high loads** on shaft end

**Possibility of mounting large size motors**

**Manufacturing and product management flexibility**

**High manufacturing quality standard**

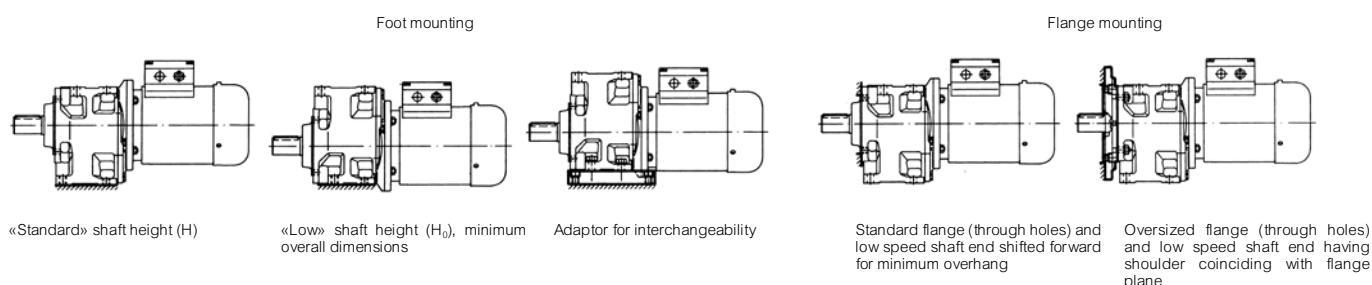
**Minimum maintenance requirements**

**Standard motor to IEC**

**High, reliable and tested performances**

**Pinion of final reduction with three bearings** (excluding sizes 32 ... 41) **in order to ensure best meshing conditions** (no overhang wheel; maximum rigidity and overloading capacity, maximum reduction of noise level)

This range of gear reducers and gearmotors combines and exalts the traditional qualities of coaxial gear reducers — **compactness, economy** —, with the ones deriving from modern design, manufacturing and operating criteria — **strength and suitability also for heaviest applications, universality and ease of application, wide range of sizes, service** — the advantages typically associated with high quality gear reducers produced in large series.

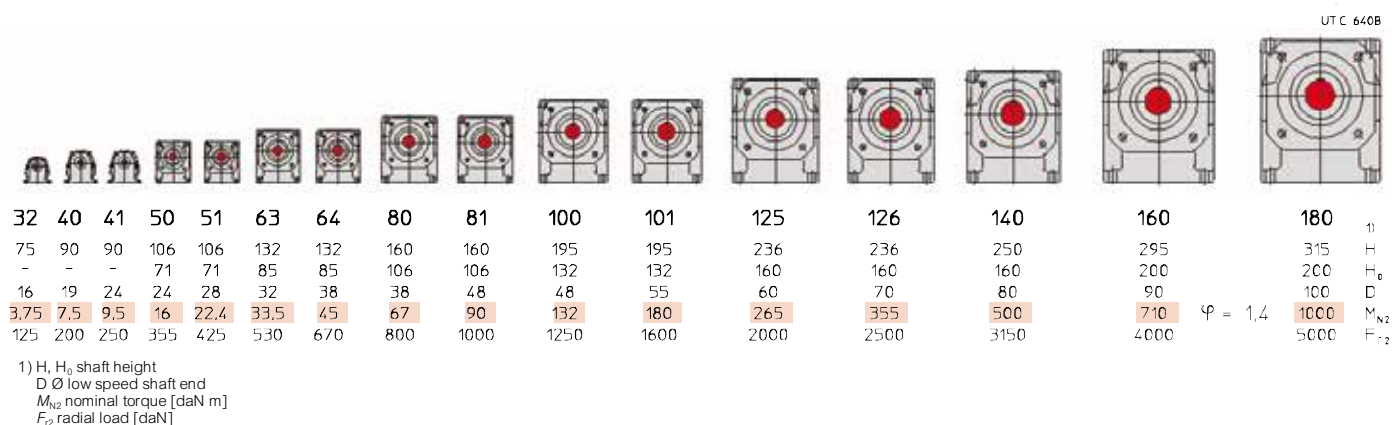


## a - Gear reducer

### Structural features

Main specifications are:

- **universal mounting (patented)** with lower and upper feet and B5 flange **integral** with housing (excluding sizes 32 ... 41 whose mounting is either with feet or with flange always integral with housing);
- **low speed shaft end** shifted forward (excluding size 40) compared to flange plane, for **smaller overhang** having same position of external radial load;
- modern conception according to Rossi **new modular system** (improved modular construction both for component parts and assembled product); to withstand **high loads on high and low speed shaft ends**;



- maximum compactness and reduced overall dimensions — and equal for 2l and 3l — especially in longitudinal direction; coaxial low and high speed shafts excluding sizes 140 ... 180 for which they are slightly misaligned (see ch. 3.2 and 3.8);
- **single-piece** cast iron **housing** 200 UNI ISO 185 (excluding sizes 32 ... 41) with **stiffening ribs** and high lubricant capacity;
- gear reducer overall sized so as to accept particularly powerful motors, to permit the transmission of **high** nominal and maximum **torques** and support **high loads on low and high speed shaft ends**;
- cylindrical roller or ball bearings on intermediate shafts duly sized for every condition;
- bearings of **low speed shaft** generously proportioned in order to withstand high loads on low speed shaft end (which is also proportioned for the same purpose);

| Cuscinetto<br>Bearing         | Grandezza - Size |      |      |      |       |       |       |      |         |      |         |       |       |       |       |       |
|-------------------------------|------------------|------|------|------|-------|-------|-------|------|---------|------|---------|-------|-------|-------|-------|-------|
|                               | 32               | 40   | 41   | 50   | 51    | 63    | 64    | 80   | 81      | 100  | 101     | 125   | 126   | 140   | 160   | 180   |
| lato esterno<br>external side | 6203             | 6204 | 6205 | 6206 | 6206  | 6207  | 6208  | 6308 | NJ210EC | 6310 | NJ212EC | 30214 | 32016 | 32018 | 32021 | 32024 |
| lato interno<br>internal side | 6201             | 6004 | 6203 | 6204 | 6204E | 6205E | 6206E | 6306 | NJ207EC | 6308 | NJ210EC | 30212 | 32014 | 32016 | 32018 | 32021 |

- pinion of final reduction with **three bearings** (excluding sizes 32 ... 41) in order to ensure best meshing conditions (no overhang wheel, maximum rigidity and **overloading capacity**, maximum **reduction of noise level**);
- gear reducers: input face having machined flange and holes (excluding sizes 32 and 40);
- gearmotors: **standard motor to IEC** with pinion directly mounted onto shaft end;
- shaft end with parallel key and tapped butt-end hole;
- standard dimensions and compliance with standards;
- grease or oil-bath lubrication; with synthetic grease for sizes 32 ... 41 or synthetic oil sizes 50 ... 81 all supplied **filled with lubricant** for lubrication **«for life»** and with a plug (sizes 32 ... 64) or two plugs (sizes 80 and 81); with synthetic or mineral oil (ch. 4) with filler plug with **valve**, drain and level plug (sizes 100 ... 180); sealed;
- **paint:** **external** coating in epoxy powder paint (sizes 32 ... 81) RAL 5010 ISO C3 H to ISO 12944-2 and 12944-1 or water based dual compound polyacrylic resin basis enamel (sizes 100 ... 180) RAL 5010 ISO C3 L to ISO 12944-2 and 12944-1 resistant to atmospheric and aggressive agents; suitable for further coats only with dual-compound products after degreasing and sanding; color blue RAL 5010 DIN 1843, other colors and/or painting cycles on request; **internal** protection with epoxy powder paint (sizes 32 ... 81) suitable to resist to synthetic oils or with synthetic paint (sizes 100 ... 180) suitable to resist synthetic oils.
- possibility of obtaining combined gear reducer and gearmotor units providing high transmission ratios;
- non-standard designs: see ch. 5.

## Train of gears:

- 2, 3 cylindrical gear pairs (5, 6 in combined units);
- 7 sizes with final reduction centre distance to R 10 series (32 ... 125, with 6 size pairs: standard and strengthened); 3 sizes with final reduction centre distance to R 20 series (140 ... 180) for a total of **16 sizes**;
- nominal transmission ratios to R 10 series (6,3 ... 6 300) for gear reducers;
- output speeds close to standard number R 20 series (0,45 ... 710 min<sup>-1</sup>) for gearmotors;
- casehardened and hardened gear pairs in 16 CrNi4 or 20 MnCr5 steel depending on size and 18 NiCrMo5 steel, according to UNI 7846-78;
- helical toothed gear pairs with **ground** profile;
- gears load capacity calculated for tooth breakage and pitting.

## Specific standards:

- nominal transmission ratios and main dimensions according to UNI 2016 standard numbers (DIN 323-74, NF X 01.001, BS 2045-65, ISO 3-73);
- tooth profiles to UNI 6587-69 (DIN 867-86, NF E 23.011, BS 436.2-70, ISO 53-74);
- shaft heights to UNI 2946-68 (DIN 747-76, NF E 01.051, BS 5186-75, ISO 496-73);
- fixing flanges B14 and B5 taken from UNEL 13501-69 (DIN 42948-65, IEC 72.2);
- medium series fixing holes to UNI 1728-83 (DIN 69-71, NF E 27.040, BS 4186-67, ISO/R 273);
- cylindrical shaft ends (long or short) to UNI ISO 775-88 (DIN 748, NF E 22.05.051, BS 4506-70, ISO/R775) with tapped butt-end hole to UNI 9321 (DIN 332 Bl. 2-70, NF E 22.056) excluding d-D diameter ratio;
- parallel keys to UNI 6604-69 (DIN 6885 Bl. 1-68, NF E 27.656 and 22.175, BS 4235.1-72, ISO/R/773-69) except for specific cases of motor-to-gear reducer coupling where key height is reduced;
- mounting positions taken from CEI 2-14 (DIN EN 60034-7, IEC 34.7);



— load capacity verified according to UNI 8862, DIN 3990, AFNOR E 23-015, ISO 6336 for running time  $\geq 12\ 500$  h.

## Sound levels $L_{WA}$ and $\bar{L}_{pA}$ [dB(A)]

Standard production sound power level  $L_{WA}$  [dB(A)]<sup>1)</sup> and mean sound pressure level  $\bar{L}_{pA}$  [dB(A)]<sup>2)</sup> for gearmotors assuming nominal load, and input speed  $n_1 = 1\ 400^{(3)} \text{ min}^{-1}$ . Tolerance +3 dB(A).

If required, gear reducers can be supplied with reduced sound levels (normally 3 dB(A) below tabulated values); consult us.

Values in table are valid also for gear reducers.

| Size and<br>train of gears | Gearmotors with 4 poles motor |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|----------------------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                            | 63                            |                 | 71              |                 | 80              |                 | 90              |                 | 100<br>112      |                 | 132             |                 | 160<br>180 M    |                 | 180 L<br>200    |                 | 225<br>250      |                 | 280             |                 |
|                            | L <sub>WA</sub>               | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> | L <sub>WA</sub> | L <sub>pA</sub> |
| 32, 40, 41 2I              | 63                            | 54              | 65              | 56              | 68              | 59              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
|                            | 62                            | 53              | 64              | 55              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
| 50, 51 2I                  | —                             | —               | 66              | 57              | 69              | 60              | 71              | 62              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
|                            | 62                            | 53              | 65              | 56              | 68              | 59              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
| 63, 64 2I                  | —                             | —               | —               | —               | 69              | 60              | 73              | 64              | 75              | 66              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
|                            | —                             | —               | 66              | 57              | 68              | 59              | 71              | 62              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
| 80, 81 2I                  | —                             | —               | —               | —               | —               | —               | 73              | 64              | 77              | 68              | 78              | 69              | —               | —               | —               | —               | —               | —               | —               | —               |
|                            | —                             | —               | —               | —               | 69              | 60              | 72              | 63              | 75              | 66              | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               |
| 100, 101 2I                | —                             | —               | —               | —               | —               | —               | —               | —               | 77              | 68              | 80              | 71              | 81              | 72              | —               | —               | —               | —               | —               | —               |
|                            | —                             | —               | —               | —               | —               | —               | 73              | 64              | 76              | 67              | 78              | 69              | —               | —               | —               | —               | —               | —               | —               | —               |
| 125, 126, 140 2I           | —                             | —               | —               | —               | —               | —               | —               | —               | —               | —               | 81              | 72              | 83              | 74              | 85              | 76              | 87              | 78              | —               | —               |
|                            | —                             | —               | —               | —               | —               | —               | —               | —               | 77              | 68              | 80              | 71              | 81              | 72              | —               | —               | —               | —               | —               | —               |
| 160, 180 2I                | —                             | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | —               | 83              | 74              | 86              | 77              | 88              | 79              | 90              | 81              |
|                            | —                             | —               | —               | —               | —               | —               | —               | —               | —               | —               | 81              | 72              | 82              | 73              | 84              | 75              | 86              | 77              | —               | —               |

1) To ISO 8579-1.

2) Mean value of measurement at 1 m from external profile of gear reducer standing in free field on a reflecting surface.

3) For  $n_1 = 1\ 800 \text{ min}^{-1}$ , modify tabulated values thus:  $n_1 = 710 \text{ min}^{-1}$ , -3 dB(A);  $n_1 = 900 \text{ min}^{-1}$ , -2 dB(A);  $n_1 = 1\ 120 \text{ min}^{-1}$ , -1 dB(A);  $n_1 = 1\ 800 \text{ min}^{-1}$ , +2 dB(A).

## b - Electric motor

Gearmotor dimensions and masses of present catalog (see ch. 3.6 and 3.8) refer to HB and HBZ motors (cat. TX).

### Main structural features (HB motor and HBZ brake motor)

- motor **standardized to IEC**;
- asynchronous three-phase, totally-enclosed, externally ventilated, with cage rotor;
- single polarity, frequency 50 Hz, voltage  $\Delta 230 \text{ V Y } 400 \text{ V}$  (size  $\leq 132$ ),  $\Delta 400 \text{ V}$  (size  $\geq 160$ );
- **IP 55** protection, **insulation class F**, temperature rise class **B**;
- rated power delivered on continuous duty S1 (excluding some cases of motor sizes with power not according to standard; see specific documentation) and referred to nominal voltage and frequency; maximum ambient temperature  $40^\circ \text{C}$  and altitude  $1\ 000 \text{ m}$ ;
- capacity to withstand one or more overloads up to 1,6 times the nominal load for a maximum total period of 2 min per single hour;
- starting torque with direct on-line start at least 1,6 times the nominal one (it is usually higher);
- mounting position B5 and derivatives as shown in the following table;
- **suitable for inverter duty** (generous electromagnetic sizing, low-loss electrical stamping, phase separators, etc.)
- designs available for every application need: flywheel, independent cooling fan, independent cooling fan and encoder, etc.

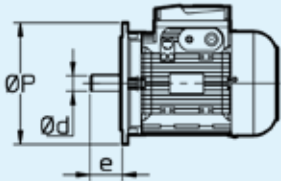


## Constructive features of HBZ brake motor

- particularly strong construction to withstand braking stresses; **maximum reduction of noise level**;
- spring-loaded d.c. electromagnetic brake; feeding from the terminal box; brake can also be independently fed directly from the line;
- braking torque **proportioned** to motor torque (usually  $M_f \approx 2 M_N$ ) and adjustable by adding or removing spring pairs;
- possibility of high frequency of starting;
- quick and rapid stop;
- hand lever for manual release with automatic return (on request for size  $\leq 160$ S); removable lever rod.

For other specifications and details see **specific documentation of cat. TX**

## Main coupling dimensions

| Grand.<br>motore<br>Motor<br>size |  |   |     |   |     |            |   |     |   |     |            |   |    |   |     |
|-----------------------------------|-----------------------------------------------------------------------------------|---|-----|---|-----|------------|---|-----|---|-----|------------|---|----|---|-----|
|                                   | IEC 60072                                                                         |   |     |   |     |            |   |     |   |     |            |   |    |   |     |
|                                   | (UNEL 13117-17, DIN 43677 Bl. 1.A-65)                                             |   |     |   |     |            |   |     |   |     |            |   |    |   |     |
|                                   | Forma costruttiva motore - Motor mounting position                                |   |     |   |     |            |   |     |   |     |            |   |    |   |     |
|                                   | IM <b>B5</b>                                                                      |   |     |   |     | <b>B5R</b> |   |     |   |     | <b>B5A</b> |   |    |   |     |
|                                   | Ød                                                                                | x | e   | - | ØP  | Ød         | x | e   | - | ØP  | Ød         | x | e  | - | ØP  |
| <b>63</b>                         | 11                                                                                | x | 23  | - | 140 |            |   | —   |   |     |            |   | —  |   |     |
| <b>71</b>                         | 14                                                                                | x | 30  | - | 160 | 11         | x | 23  | - | 140 | 14         | x | 30 | - | 140 |
| <b>80</b>                         | 19                                                                                | x | 40  | - | 200 | 14         | x | 30  | - | 160 | 19         | x | 40 | - | 160 |
| <b>90</b>                         | 24                                                                                | x | 50  | - | 200 | 19         | x | 40  | - | 200 |            |   | —  |   |     |
| <b>100, 112</b>                   | 28                                                                                | x | 60  | - | 250 | 24         | x | 50  | - | 200 |            |   | —  |   |     |
| <b>132</b>                        | 38                                                                                | x | 80  | - | 300 | 28         | x | 60  | - | 250 |            |   | —  |   |     |
| <b>160</b>                        | 42                                                                                | x | 110 | - | 350 | 38         | x | 80  | - | 300 |            |   | —  |   |     |
| <b>180</b>                        | 48                                                                                | x | 110 | - | 350 |            |   | —   |   |     |            |   | —  |   |     |
| <b>200</b>                        | 55                                                                                | x | 110 | - | 400 | 48         | x | 110 | - | 350 |            |   | —  |   |     |
| <b>225</b>                        | 60                                                                                | x | 140 | - | 450 |            |   | —   |   |     |            |   | —  |   |     |
| <b>250</b>                        | 65                                                                                | x | 140 | - | 550 | 60         | x | 140 | - | 450 |            |   | —  |   |     |
| <b>280</b>                        | 75                                                                                | x | 140 | - | 550 |            |   | —   |   |     |            |   | —  |   |     |

**ATTENTION:** Electric motor flange of gearmotors MR 3l 50, 51 with motor size 63 must have the two top holes slotted outwards as shown in the drawing.

## Short time duty (S2) and intermittent periodic duty (S3); duty cycles S4 ... S10

In case of a duty-requirement type S2 ... S10 the motor power can be increased as per the following table; starting torque keeps unchanged.

**Short time duty (S2).** — Running at constant load for a given period of time less than that necessary to reach normal running temperature, followed by a rest period long enough for motor's return to ambient temperature.

**Intermittent periodic duty (S3).** — Succession of identical work cycles consisting of a period of running at constant load and a rest period. Current peaks on starting are not to be of an order that will influence motor heat to any significant extent.

$$\text{Cyclic duration factor} = \frac{N}{N+R} \cdot 100\%$$

where:  $N$  being running time at constant load,  
 $R$  the rest period and  $N + R = 10$  min (if longer consult us)

| Servizio - Duty |                                                     |        | Grandezza motore <sup>1)</sup> - Motor size <sup>1)</sup> |             |             |
|-----------------|-----------------------------------------------------|--------|-----------------------------------------------------------|-------------|-------------|
|                 |                                                     |        | 63 ... 90                                                 | 100 ... 132 | 160 ... 280 |
| S2              | durata del servizio<br>duration of running          | 90 min | 1                                                         | 1           | 1,06        |
|                 |                                                     | 60 min | 1                                                         | 1,06        | 1,12        |
|                 |                                                     | 30 min | 1,12                                                      | 1,18        | 1,25        |
|                 |                                                     | 10 min | 1,25                                                      | 1,25        | 1,32        |
|                 |                                                     |        |                                                           |             |             |
| S3              | rapporto di intermittenza<br>cyclic duration factor | 60%    | 1,12                                                      |             |             |
|                 |                                                     | 40%    | 1,18                                                      |             |             |
|                 |                                                     | 25%    | 1,25                                                      |             |             |
|                 |                                                     | 15%    | 1,32                                                      |             |             |
| S4 ... S10      |                                                     |        | interpellarci - consult us                                |             |             |

1) For motor sizes 90LC 4, 112MC 4, 132MC 4, consult us.

## Frequency 60 Hz

**Normal** motors up to size 132 wound for 50 Hz can be fed at 60 Hz; in this case speed increases by 20%. If input-voltage corresponds to winding voltage, power keeps unchanged, providing that higher temperature rise values are acceptable, starting is not on full load and that the power requirement is not unduly demanding, whilst starting and maximum torques decrease by 17%. If input-voltage is 20% higher than winding voltage, power increases by 20% whilst starting and maximum torques keep unchanged.

For **brake** motors see **specific literature**.

From size 160 upwards motors — both standard and brake ones — should be wound for 60 Hz exploiting the 20% power increase as a matter of course.

## Power available with high ambient temperature or high altitude

When motor has to run at an ambient temperature higher than 40 °C or at altitude above sea level higher than 1 000 m, it has to be derated according to the following tables:

| Temperatura ambiente [°C]<br>Ambient temperature [°C] | 30    | 40    | 45    | 50    | 55    | 60    |       |
|-------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| <b><math>P/P_N</math> [%]</b>                         | 106   | 100   | 96,5  | 93    | 90    | 86,5  |       |
| Altitudine s.l.m. [m]<br>Altitude l.a.s. [m]          | 1 000 | 1 500 | 2 000 | 2 500 | 3 000 | 3 500 | 4 000 |
| <b><math>P/P_N</math> [%]</b>                         | 100   | 96    | 92    | 88    | 84    | 80    | 76    |

## Specific standards:

- nominal powers and dimensions to CENELEC HD 231 (IEC 72-1, DIN 42677, NF C51-120, BS 5000-10 and BS 4999-141) for mounting positions IM B5, IM B14 and derivatives;
- nominal performances and running specifications to CENELEC EN 60034-1 (IEC 34-1, CEI EN 60034-1, DIN VDE 0530-1, NF C51-111, BS 4999-101);
- protection to CENELEC EN 60034-5 (IEC 34-5, CEI 2-16, DIN EN 60034-5, NF C51-115, BS 4999-105);
- mounting positions to CENELEC EN 60034-7 (IEC 34-7, CEI EN 60034-7, DIN IEC 34-7, NF C51-117, BS EN 60034-7);
- sound levels to CENELEC 60034-9 (IEC 34-9, DIN 57530 pt. 9);
- balancing and vibration velocity (vibration under standard rating N) to CENELEC HD 53.14 S1 (IEC 34-14, ISO 2373 CEI 2-23, BS 4999-142); motors are balanced with half key inserted into shaft extension;
- cooling to CENELEC EN 60034-6 (CEI 2-7, IEC 34-6): standard type IC 411; type IC 416 for non-standard design with axial independent cooling fan.

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## Asynchronous three-phase motors, brake motors



**HE - HB**  
Asynchronous three-phase motor



**HEZ - HBZ**  
Asynchronous three-phase **brake motor**  
with **d.c. brake**



**HBF**  
Asynchronous three-phase **brake motor**  
with **a.c. brake**



**HBV**  
Asynchronous three-phase **brake motor**  
with **d.c. safety brake**

Advanced design motors sharing the **same stator windings**, the same **rotors**, the same  **housings**, the same  **flanges**, the same performance, and the majority of technical solutions with its twin brake motor series (**HEZ, HBZ, HBF, and HBV**).

The generous electromagnetic sizing allow to achieve **high efficiency values** complying **with different energy saving regulations**:

- Efficiency class **IE3 (ErP)** for HB and HE;
- Efficiency class **IE3 (ErP)** for HEZ and HBZ

The electric design (terminal block, name plate, etc.) has been studied to comply, as standard, also with **NEMA MG1-12** for the maximum application flexibility and facility.

The strength and the precision of mechanical construction, the generous bearings and the wide range of non-standard designs available on catalog make this motor particularly suitable for coupling with gearmotors.

Thanks to its outstanding **low noise**, **progressivity** and **dynamic** characteristics, it is specifically suitable for **coupling with gearmotor minimizing the dynamic overloads** deriving from **starting and braking phases** (especially in case of motion reversals) and maintaining a **very good braking torque value**.

The excellent **operation progressivity** - when starting and braking - is assured by the brake anchor which is less quick in the impact (compared to a.c. HBF) and by the slight quickness of d.c. brakes.

Offering a comprehensive **range of accessories and non-standard designs** in order to satisfy all possible gearmotor application fields.

The **high reactivity** typical of **a.c. brake** and the **high braking capacity** make this brake motor **particularly suitable for heavy duties** requiring **quick brakings** and a **high number of operations** (e.g.: lifts with high frequency of starting, usually for size > 132, and/or for jog operations).

Vice versa, its very **high dynamic characteristics** (rapidity and frequency of starting) **are not advisable for the use in gearmotor coupling**, especially when these features are not strictly necessary for the application (avoiding useless overloads on the whole transmission).

Comprehensive **range of accessories and non-standard designs** in order to satisfy all application needs of gearmotors (in particular for HBF: IP 56, IP 65, encoder, independent cooling fan, independent cooling fan and encoder, double extension shaft, etc.).

Featuring **maximum economy**, **very reduced overall dimensions** and **moderate braking torque**, it is suitable for the coupling with gearmotor and can be applied as brake for **safety or parking stops** (e.g. cutting machines) and for operations at deceleration ramp end **during the running with inverter**.

The standard cast iron fan supplies a flywheel effect increasing the very good progressivity of starting and braking (typical of d.c. brake) being particularly **suitable for «light»<sup>1)</sup> traverse movements**.

1) Mechanism group M4 (max 180 starts/h) and on-load running L1 (light) or L2 (moderate) to ISO 4301/1, F.E.M./II 1997.

# Product overview





## Section content

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[illegible]22  Rossi



## Gear reducer mounting position

**Gear reducer and gearmotor mounting positions are described** in ch. 3.6, 3.8 (the mounting position designation refers to foot mounting only, even if gear reducers are for universal mounting, sizes 32 ... 41 excluded).

When having no particular needs, **prefer B3** (B3 or B5 for sizes 32 ... 41) **mounting position** for its technical and economic cost effectiveness (maximum simplification of lubrication system, lower oil splash, lower gear reducer heating, stock availability).

## Input speed

Complete the designation stating the input speed  $n_1$ , if  $> 1400 \text{ min}^{-1}$ :

Example:

R 2l 50 UC2A / 29,3  $n_1 = 2000 \text{ min}^{-1}$

## Motor

When the gearmotor is supplied **equipped with a standard Rossi motor**, fill in the designation stating the motor designation (ref. cat. TX).

Example:

MR 3l 140 UC2A - 48 x 350 - 20,4

**HB3 180M 4 400-50 B5**

When **brake motor** is required, insert the letters **HBZ** (ref. cat. TX).

Example:

MR 3l 140 UC2A - 48 x 350 - 20,4

**HB3Z 180M 4 400-50 B5**

When the gearmotor is equipped **without motor**, omit the designation and add «without motor».

Esempio:

MR 3l 140 UC2A - 48x350 - 20,4

**without motor**

When motor is supplied by the **Buyer**<sup>1)</sup>, complete the designation by stating the description of «motor supplied by us».

1) The motor, supplied by the Buyer must be to IEC with mating surfaces machined under accuracy rating IEC 60072-1 and is to be sent carriage and expenses paid to our factory for fitting to the gear reducer.

Example:

MR 3l 140 UC2A - 48x350 - 20,4

**motore supplied by us**

## Motor terminal box position

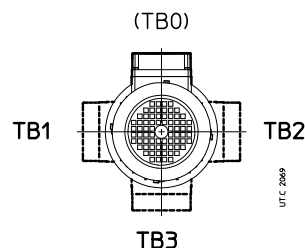
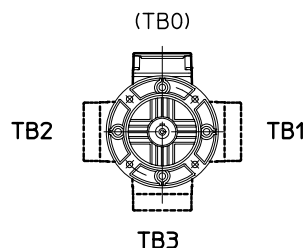
Complete the designation stating the motor terminal box position if differing from the standard one (TB0; scheme below); the cable input is Buyer's responsibility.

Example:

MR 3l 140 UC2A - 48x350 / 20,4

HB3 180M 4 400-50 B5 **TB3**

View from drive end (D)



View from non-drive end (N)

## Accessories and non-standard designs

In the event of a gear reducer or gearmotor being required in a design different from those stated above, specify it in detail (ch. 5).

Nominal thermal power  $P_{tN}$ , written in red in the following tables, is that which can be applied at the gear reducer input without exceeding 95 °C<sup>1)</sup> approximately oil temperature when operating in following running conditions:

- input speed  $n_1 = 1\ 400\ \text{min}^{-1}$ ;
- mounting position B3;
- continuous duty S1;
- maximum ambient temperature 40 °C;
- maximum altitude 1 000 m above sea level;
- air speed  $\geq 1,25\ \text{m/s}$  (typical value in presence of a gearmotor with self cooled motor).

For the cases marked at ch. 7 and 9 it should be always verified that the applied power  $P_i$  is less than or equal to gear reducer nominal thermal power  $P_{tN}$  multiplied by the corrective coefficients  $f_{t1}$ ,  $f_{t2}$ ,  $f_{t4}$ ,  $f_{t5}$  (stated in the following tables) considering the several operational conditions:

$$P_i \leq P_{tN} \cdot f_{t1} \cdot f_{t2} \cdot f_{t4} \cdot f_{t5}$$

When this condition is not satisfied consider the use of special lubricant or a cooling unit with heat exchanger: consult us.

Thermal power needs not be taken into account when maximum duration of continuous running time is 1 ÷ 3 h (from small to large gear reducer sizes) followed by rest periods long enough to restore the gear reducer to near ambient temperature (likewise 1 ÷ 3 h). In case of maximum ambient temperature above 50 °C or below 0 °C consult us.

**Nominal thermal power  $P_{tN}$  [kW]**

| Train of gears | $P_{tN}$ [kW] |          |          |      |     |      |
|----------------|---------------|----------|----------|------|-----|------|
|                | 80, 81        | 100, 101 | 125, 126 | 140  | 160 | 180  |
| <b>2I</b>      | 15            | 22,4     | 33,5     | 35,5 | 53  | 56   |
| <b>3I</b>      | 11,2          | 17       | 25       | 26,5 | 40  | 42,5 |

**Thermal factor  $f_{t1}$  according to input speed  $n_1$**

| Train of gears | $f_{t1}$                                      |      |       |       |       |
|----------------|-----------------------------------------------|------|-------|-------|-------|
|                | Input speed $n_1$ [min <sup>-1</sup> ] $\geq$ |      |       |       |       |
|                | 710                                           | 900  | 1 120 | 1 400 | 1 800 |
| <b>2I</b>      | 1,18                                          | 1,12 | 1,06  | 1     | 0,85  |
| <b>3I</b>      | 1,06                                          | 1,06 | 1,03  | 1     | 0,95  |

**Thermal factor  $f_{t2}$  according to ambient temperature and duty**

| Maximum ambient temperature [°C] | $f_{t2}$           |                                                         |      |      |      |
|----------------------------------|--------------------|---------------------------------------------------------|------|------|------|
|                                  | Continuous duty S1 | Intermittent duty S3 ... S6                             |      |      |      |
|                                  |                    | Cyclic duration factor for 60 min running <sup>2)</sup> |      |      |      |
|                                  |                    | 60                                                      | 40   | 25   | 15   |
| <b>50</b>                        | 0,8                | 0,95                                                    | 1,06 | 1,18 | 1,32 |
| <b>40</b>                        | <b>1</b>           | 1,18                                                    | 1,32 | 1,5  | 1,7  |
| <b>30</b>                        | 1,18               | 1,4                                                     | 1,6  | 1,8  | 2    |
| <b>20</b>                        | 1,32               | 1,6                                                     | 1,8  | 2    | 2,24 |
| <b>10</b>                        | 1,5                | 1,8                                                     | 2    | 2,24 | 2,5  |

**Thermal factor  $f_{t4}$  according to altitude**

| Altitude a.s.l. [m] | $f_{t4}$ |
|---------------------|----------|
| $\leq 1\ 000$       | <b>1</b> |
| 1 000 ÷ 2 000       | 0,95     |
| 2 000 ÷ 3 000       | 0,9      |
| 3 000 ÷ 4 000       | 0,85     |
| $\geq 4\ 000$       | 0,8      |

**Thermal factor  $f_{t5}$  according to air speed on the housing**

| Air speed m/s    | Working environment                                                       | $f_{t5}$   |
|------------------|---------------------------------------------------------------------------|------------|
| <b>&lt; 0,63</b> | very small or no air movement or gear reducer shielded                    | consult us |
| <b>0,63</b>      | small and with limited air movement                                       | 0,71       |
| <b>1</b>         | large and without ventilation                                             | 0,9        |
| <b>1,25</b>      | large and with slight ventilation (e.g. gearmotor with self-cooled motor) | <b>1</b>   |
| <b>2,5</b>       | outdoor ventilated                                                        | 1,18       |
| <b>4</b>         | strong air movement                                                       | 1,32       |

1) Corresponding to an average temperature of the external housing surface of approximately 85 °C; locally housing temperature can achieve the oil temperature.  
2) (Duration of running on load / 60) · 100 [%].

Service factor  $f_s$  takes into account the different running conditions (nature of load, running time, frequency of starting, other considerations) which must be referred to when performing calculations of gear reducer selection and verification.

The powers and torques shown in the catalog are nominal (i.e. valid for  $f_s = 1$ ) for gear reducers, corresponding to the  $f_s$  indicated for gearmotors.

**Service factor based:** on the **nature of load** and **running time** (this value is to be multiplied by the values shown in the tables alongside).

...: on **frequency of starting** referred to the nature of load.

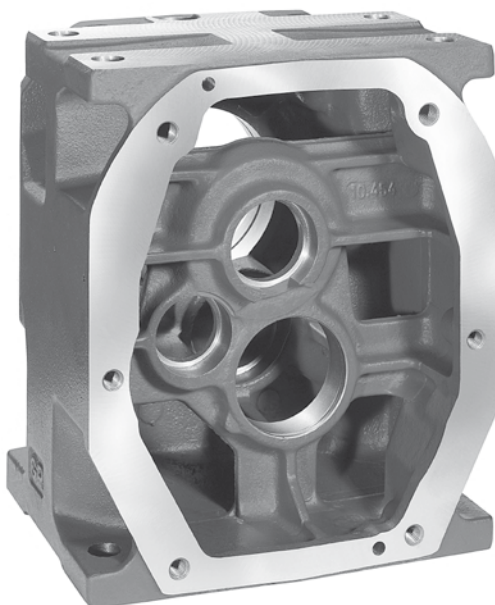
| Natura del carico della macchina azionata<br>Nature of load of the driven machine |                                                                                                                      | Durata di funzionamento [h]<br>Running time [h] |                  |                   |                    |                     | Rif.<br>carico<br>Load<br>ref. | Frequenza di avviamento z [avv./h]<br>Frequency of starting z [starts/h] |      |      |      |      |      |      |      |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------|-------------------|--------------------|---------------------|--------------------------------|--------------------------------------------------------------------------|------|------|------|------|------|------|------|
| Rif.<br>Ref.                                                                      | Descrizione<br>Description                                                                                           | 3 150<br>≤2 h/d                                 | 6 300<br>2÷4 h/d | 12 500<br>4÷8 h/d | 25 000<br>8÷16 h/d | 50 000<br>16÷24 h/d |                                | 2                                                                        | 4    | 8    | 16   | 32   | 63   | 125  | 250  |
| a                                                                                 | <b>Uniforme</b><br><b>Uniform</b>                                                                                    | 0,8                                             | 0,9              | 1                 | 1,18               | 1,32                | a                              | 1                                                                        | 1,06 | 1,12 | 1,18 | 1,25 | 1,32 | 1,4  | 1,5  |
| b                                                                                 | <b>Sovraccarichi moderati</b> (entità<br>1,6 volte il carico normale)<br><b>Moderate overloads</b><br>(1,6 × normal) | 1                                               | 1,12             | 1,25              | 1,5                | 1,7                 | b                              | 1                                                                        | 1    | 1,06 | 1,12 | 1,18 | 1,25 | 1,32 | 1,4  |
| c                                                                                 | <b>Sovraccarichi forti</b> (entità<br>2,5 volte il carico normale)<br><b>Heavy overloads</b><br>(2,5 × normal)       | 1,32                                            | 1,5              | 1,7               | 2                  | 2,24                | c                              | 1                                                                        | 1    | 1    | 1,06 | 1,12 | 1,18 | 1,25 | 1,32 |

Details of service factor, and considerations.

Given  $f_s$  values are valid for:

- electric motor with cage rotor, direct on-line starting up to 9,2 kW, star-delta starting for higher power ratings; for direct on-line starting above 9,2 kW or for brake motors, select  $f_s$  according to a frequency of starting double the actual frequency; for internal combustion engines multiply  $f_s$  by 1,25 (multicylinder) or 1,5 (single-cylinder);
- maximum time on overload 15 s; on starting 3 s; if over and/or subject to heavy shock effect, consult us;
- a whole number of overload cycles (or start) **imprecisely** completed in 1, 2, 3 or 4 revolutions of low speed shaft; if **precisely** a continuous overloads should be assumed;
- **standard** level of reliability; if a **higher** degree of reliability is required (particularly difficult maintenance conditions, key importance of gear reducer to production, personnel safety, etc.) multiply  $f_s$  by **1,25 ÷ 1,4**.

Motors having a starting torque not exceeding nominal values (star-delta starting, particular types of motor operating on direct current, and single-phase motors), and particular types of coupling between gear reducer and motor, and gear reducer and driven machine (flexible, centrifugal, fluid and safety couplings, clutches and belt drives) affect service factor favourably, allowing its reduction in certain heavy-duty applications; consult us if need be.



## a - Gear reducer

### Determining the gear reducer size

- Make available all necessary data: required output power  $P_2$  of gear reducer, speeds  $n_2$  and  $n_1$ , running conditions (nature of load, running time, frequency of starting  $z$ , other considerations) with reference to ch. 5.
- Determine service factor  $f_s$  on the basis of running conditions (ch. 5).
- Select the gear reducer size (also, the train of gears and transmission ratio  $i$  at the same time) on the basis of  $n_2$ ,  $n_1$  and of a power  $P_{N2}$  greater than or equal to  $P_2 \cdot f_s$  (ch. 7).
- Calculate power  $P_1$ , required at input side of gear reducer using — the formula  $\frac{P_2}{\eta}$ , where  $\eta = 0,96 \div 0,94$  is the efficiency of the gear reducer (ch. 3.13).

When for reasons of motor standardization, power  $P_1$  applied at input side of gear reducer turns out to be higher than the power required (considering motor/gear reducer efficiency), it must be certain that this excess power applied will never be required, and frequency of starting  $z$  is so low as not to affect service factor (ch. 3.3).

Otherwise, make the selection by multiplying  $P_{N2}$  by  $\frac{P_1 \text{ applied}}{P_1 \text{ required}}$ .

Calculations can also be made on the basis of torque instead of power; this method is even preferable for low  $n_2$  values.

### Verifications

- Verify possible radial loads  $F_{r1}$ ,  $F_{r2}$  by referring to instructions and values given in ch. 3.11 and 3.12.
- When the load chart is available, and/or there are overloads — due to starting on full load (mainly for high inertias and low transmission ratios), braking, shocks, gear reducers in which the low speed shaft becomes driving member due to driven machine inertia, or other static or dynamic causes — verify that the maximum torque peak (ch. 3.13) is always less than  $2 \cdot M_{N2}$ ; if it is higher or cannot be evaluated in the above cases, install a safety device so that  $2 \cdot M_{N2}$  will never be exceeded.
- Verify, when  $f_s < 1$ , that torque  $M_2$  is less or equal to  $M_{N2}$  value valid for  $n_1 \leq 90 \text{ min}^{-1}$  (see ch. 3.5).
- For the cases marked at ch. 7 with \* and \*\* (in red) verify that  $P_1 \leq P_t$  (ch. 3.2).

## b - Gearmotor

### Determining the gearmotor size

- Make available all necessary data: required output power  $P_2$  of gearmotor, speed  $n_2$ , running conditions (nature of load, running time, frequency of starting  $z$ , other considerations) with reference to ch. 3.3.
- Determine service factor  $f_s$  on the basis of running conditions (ch. 3.3).
- Select the gearmotor size on the basis of  $n_2$ ,  $f_s$  and of a power  $P_1$  greater than or equal to  $P_2$  (ch. 3.7).

If power  $P_2$  required is the result of a precise calculation, the gearmotor should be selected on the basis of a power  $P_1$  equal to or greater than  $\frac{P_2}{\eta}$ , where  $\eta = 0,96 \div 0,94$  is gear reducer efficiency (ch. 3.13). The torque value  $M_2$  has been calculated taking into account efficiency.

When for reasons of motor standardization, power  $P_1$  available in catalogue is much greater than the power  $P_2$  required, the gearmotor can be selected on

the basis of a lower service factor ( $f_s \cdot \frac{P_2 \text{ required}}{P_1 \text{ available}}$ ) provided it is certain that this excess power available will never be required and frequency of

starting  $z$  is low enough not to affect service factor (ch. 3.3).

Calculations can also be made on the basis of torque instead of power; this method is even preferable for low  $n_2$  values.

## Verifications

- Verify possible radial load  $F_{r2}$  referring to directions and values given in ch. 3.12.
- For the motor, verify frequency of starting  $z$  when higher than that normally permissible, referring to directions and values given in ch. 2b; this will normally be required for brake motors only.
- Verify, in case of **motors supplied by the customer**, that the **static bending moment**  $M_b$  generated by motor weight on the counter flange of gear reducer is lower than the value allowed  $M_{bmax}$ , stated in the ch. 3.13.  
**Loads higher than permissible loads may be present in dynamical applications** where the gearmotor is subjected to translations, rotations or oscillations: consult us for the study of every specific case
- When a load chart is available, and/or there are overloads — due to starting on full load (especially with high inertias and low transmission ratios), braking, shocks, gear reducers in which the low speed shaft becomes driving member due to driven machine inertia, or other static or dynamic causes — verify that the maximum torque peak (ch. 3.13) is always less than  $2 \cdot M_{N2}$  ( $M_{N2} = M_2 \cdot fs$ , see ch. 3.7); if it is higher or cannot be evaluated in the above instances, install suitable safety devices so that  $2 \cdot M_{N2}$  will never be exceeded.
- For the cases marked at ch. 3.7 with \* and \*\* (in red) verify that  $P_1 \leq Pt$  (ch. 3.2).

## c - Combined gear reducer and gearmotor units

Combined units are obtained by coupling together **normal single** gear reducers and/or gearmotors so as to produce low output speeds.

### Determining the final gear reducer size and the combined unit

- Make available all necessary data relating to the output of the final gear reducer: required torque  $M_2$ , speed  $n_2$ , running conditions (nature of load, running time, frequency of starting  $z$ , other considerations) with reference to ch. 3.3.
- Determine service factor  $fs$  on the basis of running conditions (ch. 3.3).
- Select the final gear reducer size and basic reference, and the initial gear reducer or gearmotor size (ch. 3.9) on the basis of a torque value  $M_{N2}$  greater than or equal to  $M_2 \cdot fs$ .

### Selection of initial gear reducer or gearmotor

- Calculate the speed  $n_2$  and the required power  $P_2$  at the initial gearmotor output using the following formulae:

$$n_2 \text{ initial} = n_2 \text{ final} \cdot i \text{ final}$$

$$P_2 \text{ initial} = \frac{M_2 \text{ final} \cdot n_2 \text{ final}}{955 \cdot \eta \text{ final}} [\text{kW}]$$

- In the case of gear reducer, make available input speed  $n_1$  at the input of the initial gear reducer.
- Make the selection of initial gear reducer or gearmotor as shown in ch. 3.4 paragraph a) or b) bearing in mind that sizes are pre-established (and cannot be changed on account of couplings being standard) and that it is not necessary to verify service factor.

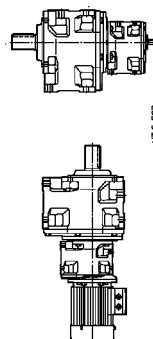
## Designation for ordering

When ordering combined units, the single gear reducers or gearmotors must be designated **separately**, as indicated in ch. 3.1) bearing in mind the following:

- insert the words **coupled with** between the final gear reducer designation and that of the initial gear reducer or gearmotor;
- always add the words **without motor** to the final gear reducer designation; select the design **oversized B5 flange** for the initial gear reducer or gearmotor (for size 63 also add **-Ø 28**); in case of initial gear reducer or gearmotor size 40 select with flange **FC1A** design.

E.g.: MR 3I 160 UC2A - 38 × 300 - 49,7 without motor coupled with  
R 2I 80 UC2A/15,7 oversized B5 flange

MR 3I 125 UC2A - 28 × 250 - 34,1 without motor mounting position V6  
coupled with  
MR 2I 63 UC2A - 19 × 200 - 24,3  
oversized B5 flange - Ø 28, mounting position V6  
HB3 80B 4 230.400 B5



## Considerations on selection

### Motor power

Taking into account the efficiency of the gear reducer, and other drives — if any — motor power is to be as near as possible to the power rating required by the driven machine: accurate calculation is therefore recommended.

The power required by the machine can be calculated, seeing that it is related directly to the power-requirement of the work to be carried out, to friction (starting, sliding or rolling friction) and inertia (particularly when mass and/or acceleration or deceleration are considerable). It can also be determined experimentally on the basis of tests, comparisons with existing applications, or readings taken with amperometers or wattmeters.

An oversized motor would involve: a greater starting current and consequently larger fuses and heavier cable; a higher running cost as power factor ( $\cos \omega$ ) and efficiency would suffer; greater stress on the drive, causing danger of mechanical failure, drive being normally proportionate to the power rating required by the machine, not to motor power.

Only high values of ambient temperature, altitude, frequency of starting or other particular conditions require an increase in motor power.

### Input speed

Maximum input speed must be always  $n_1 \leq 2\,800 \text{ min}^{-1}$ ; for intermittent duty or for particular needs higher speeds may be accepted: consult us.

For  $n_1$  higher than  $1\,400 \text{ min}^{-1}$ , **power** and **torque** ratings relating to a given transmission ratio vary as shown in the table alongside. In this case no loads should be imposed on the high speed shaft end.

For variable  $n_1$ , the selection should be carried out on the basis of  $n_{1 \text{ max}}$ ; but it should also be verified on the basis of  $n_{1 \text{ min}}$ .

When there is a belt drive between motor and gear reducer, different input speeds  $n_1$  should be examined in order to select the most suitable unit from engineering and economy standpoints alike (our catalogue favours this method of selection as it shows a number of input speed values  $n_1$  relating to a determined output speed  $n_{N2}$  in the same section). Input speed should not be higher than  $1\,400 \text{ min}^{-1}$ , unless conditions make it necessary; better to take advantage of the transmission, and use an input speed lower than  $900 \text{ min}^{-1}$ .

| $n_1$<br>$\text{min}^{-1}$ | R 2I     |          | R 3I     |          |
|----------------------------|----------|----------|----------|----------|
|                            | $P_{N2}$ | $M_{N2}$ | $P_{N2}$ | $M_{N2}$ |
| <b>2 800</b>               | 1,4      | 0,71     | 1,7      | 0,85     |
| <b>2 240</b>               | 1,25     | 0,8      | 1,4      | 0,9      |
| <b>1 800</b>               | 1,12     | 0,9      | 1,18     | 0,95     |
| <b>1 400</b>               | 1        | 1        | 1        | 1        |

## Operation on 60 Hz supply

When motor is fed with 60 Hz frequency (ch. 2 b), the gearmotor specifications vary as follows.

- Speed  $n_2$  increases by 20%.
- Power  $P_1$  may either remain constant or increase (ch. 2 b).
- Torque  $M_2$  and service factor  $f_s$  vary as follows:

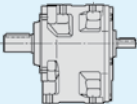
$$M_{2 \text{ at } 60 \text{ Hz}} = M_{2 \text{ at } 50 \text{ Hz}} \cdot \frac{P_{1 \text{ at } 60 \text{ Hz}}}{1,2 \cdot P_{1 \text{ at } 50 \text{ Hz}}}$$

$$f_{s \text{ at } 60 \text{ Hz}} = f_{s \text{ at } 50 \text{ Hz}} \cdot \frac{1,12 \cdot P_{1 \text{ at } 50 \text{ Hz}}}{P_{1 \text{ at } 60 \text{ Hz}}}$$

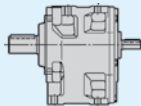
|          |       |       | Gear reducer size                        |                        |                         |                         |                         |                         |                       |                       |                        |                         |                         |                          |                         |                         |                         |
|----------|-------|-------|------------------------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-----------------------|------------------------|-------------------------|-------------------------|--------------------------|-------------------------|-------------------------|-------------------------|
| $n_{N2}$ | $n_1$ | $i_N$ | $P_{N2}$ kW<br>$M_{N2}$ daN m<br>... $i$ |                        |                         |                         |                         |                         |                       |                       |                        |                         |                         |                          |                         |                         |                         |
|          |       |       | 32                                       | 40                     | 50                      | 51                      | 63                      | 64                      | 80                    | 81                    | 100                    | 101                     | 125                     | 126                      | 140                     | 160                     | 180                     |
| 224      | 1 400 | 6,3   | 0,78<br>3,36<br>21/6,33                  | 1,35<br>5,6<br>21/6,08 | 2,64<br>11,7<br>21/6,52 | 3,41<br>15,1<br>21/6,52 | 5,7<br>24,8<br>21/6,36  | 6,8<br>29,6<br>21/6,36  | 12<br>49,8<br>21/6,1  | 14,1<br>59<br>21/6,1  | 22,5<br>100<br>21/6,5  | 26,9*<br>119<br>21/6,5  | 46*<br>199<br>21/6,35   | 53**<br>231<br>21/6,35   | —                       | 108**<br>466<br>21/6,34 | —                       |
|          |       |       | 0,61<br>3,36<br>21/8,12                  | 1,31<br>6,8<br>21/7,61 | 2,59<br>14,4<br>21/8,13 | 3,61<br>20<br>21/8,13   | 5,5<br>30,3<br>21/8,05  | 6,8<br>37,5<br>21/8,05  | 11,6<br>61<br>21/7,64 | 14,4<br>75<br>21/7,64 | 21,8<br>120<br>21/8,11 | 28,5*<br>158<br>21/8,11 | 44,1*<br>241<br>21/8,03 | 55**<br>300<br>21/8,03   | —                       | 115**<br>638<br>21/8,12 | 117**<br>675<br>21/8,43 |
| 180      | 1 400 | 8     | 0,63<br>3,41<br>21/6,33                  | 1,09<br>5,6<br>21/6,08 | 2,13<br>11,9<br>21/6,52 | 2,75<br>15,3<br>21/6,52 | 4,61<br>25<br>21/6,36   | 5,5<br>29,9<br>21/6,36  | 9,6<br>50<br>21/6,1   | 11,4<br>59<br>21/6,1  | 18,1<br>101<br>21/6,5  | 21,7<br>120<br>21/6,5   | 37<br>200<br>21/6,35    | 43,1*<br>233<br>21/6,35  | —                       | 87**<br>470<br>21/6,34  | —                       |
|          |       |       | 0,55<br>3,38<br>21/8,12                  | 1,18<br>6,8<br>21/7,61 | 2,33<br>14,5<br>21/8,13 | 3,24<br>20,1<br>21/8,13 | 4,97<br>30,5<br>21/8,05 | 6,1<br>37,5<br>21/8,05  | 10,5<br>61<br>21/7,64 | 12,9<br>75<br>21/7,64 | 19,6<br>121<br>21/8,11 | 25,6<br>159<br>21/8,11  | 39,6<br>243<br>21/8,03  | 48,9**<br>300<br>21/8,03 | —                       | 104**<br>643<br>21/8,12 | 105**<br>678<br>21/8,43 |
| 160      | 1 250 | 8     | 0,57<br>3,43<br>21/6,33                  | 0,98<br>5,7<br>21/6,08 | 1,91<br>11,9<br>21/6,52 | 2,47<br>15,4<br>21/6,52 | 4,11<br>25<br>21/6,36   | 4,94<br>30<br>21/6,36   | 8,6<br>50<br>21/6,1   | 10,2<br>59<br>21/6,1  | 16,3<br>101<br>21/6,5  | 19,5<br>121<br>21/6,5   | 33<br>200<br>21/6,35    | 38,7*<br>235<br>21/6,35  | —                       | 78**<br>472<br>21/6,34  | —                       |
|          |       |       | 0,456<br>3,36<br>21/10,8                 | 1,02<br>6,8<br>21/9,76 | 2,03<br>14,4<br>21/10,4 | 2,88<br>20,4<br>21/10,4 | 4,25<br>30,3<br>21/10,5 | 5,7<br>40,7<br>21/10,5  | 9,1<br>61<br>21/9,79  | 12,2<br>81<br>21/9,79 | 17<br>120<br>21/10,4   | 23<br>163<br>21/10,4    | 33,9<br>241<br>21/10,4  | 45,4*<br>323<br>21/10,4  | 57**<br>383<br>21/9,92  | 85**<br>618<br>21/10,7  | 117**<br>863<br>21/10,8 |
| 140      | 1 120 | 8     | 0,492<br>3,41<br>21/8,12                 | 1,06<br>6,9<br>21/7,61 | 2,11<br>14,6<br>21/8,13 | 2,92<br>20,2<br>21/8,13 | 4,48<br>30,8<br>21/8,05 | 5,5<br>37,5<br>21/8,05  | 9,4<br>61<br>21/7,64  | 11,5<br>75<br>21/7,64 | 17,6<br>122<br>21/8,11 | 23<br>159<br>21/8,11    | 35,7<br>245<br>21/8,03  | 43,8*<br>300<br>21/8,03  | —                       | 93**<br>647<br>21/8,12  | 95**<br>681<br>21/8,43  |
|          |       |       | 0,51<br>3,45<br>21/6,33                  | 0,88<br>5,7<br>21/6,08 | 1,73<br>12<br>21/6,52   | 2,23<br>15,4<br>21/6,52 | 3,7<br>25<br>21/6,36    | 4,44<br>30<br>21/6,36   | 7,7<br>50<br>21/6,1   | 9,2<br>60<br>21/6,1   | 14,7<br>101<br>21/6,5  | 17,6<br>122<br>21/6,5   | 29,7<br>200<br>21/6,35  | 35*<br>236<br>21/6,35    | —                       | 71**<br>474<br>21/6,34  | —                       |
| 125      | 1 250 | 10    | 0,41<br>3,38<br>21/10,8                  | 0,92<br>6,8<br>21/9,76 | 1,83<br>14,5<br>21/10,4 | 2,59<br>20,6<br>21/10,4 | 3,82<br>30,5<br>21/10,5 | 5,1<br>41<br>21/10,5    | 8,2<br>61<br>21/9,79  | 10,9<br>82<br>21/9,79 | 15,3<br>121<br>21/10,4 | 20,7<br>164<br>21/10,4  | 30,5<br>243<br>21/10,4  | 40,8<br>325<br>21/10,4   | 51**<br>385<br>21/9,92  | 76*<br>623<br>21/10,7   | 105**<br>867<br>21/10,8 |
|          |       |       | 0,443<br>3,43<br>21/8,12                 | 0,95<br>6,9<br>21/7,61 | 1,90<br>14,7<br>21/8,13 | 2,62<br>20,3<br>21/8,13 | 4,03<br>31<br>21/8,05   | 4,88<br>37,5<br>21/8,05 | 8,5<br>62<br>21/7,64  | 10,3<br>75<br>21/7,64 | 15,9<br>123<br>21/8,11 | 20,7<br>160<br>21/8,11  | 32,1<br>246<br>21/8,03  | 39,1*<br>300<br>21/8,03  | —                       | 84**<br>652<br>21/8,12  | 85**<br>685<br>21/8,43  |
| 112      | 1 000 | 8     | 0,46<br>3,48<br>21/6,33                  | 0,79<br>5,7<br>21/6,08 | 1,54<br>12<br>21/6,52   | 2<br>15,5<br>21/6,52    | 3,29<br>25<br>21/6,36   | 3,95<br>30<br>21/6,36   | 6,9<br>50<br>21/6,1   | 8,2<br>60<br>21/6,1   | 13,1<br>102<br>21/6,5  | 15,8<br>122<br>21/6,5   | 26,4<br>200<br>21/6,35  | 31,1<br>236<br>21/6,35   | —                       | 63*<br>477<br>21/6,34   | —                       |
|          |       |       | 0,343<br>3,16<br>21/13,5                 | 0,77<br>6,8<br>21/13   | 1,69<br>14,4<br>21/12,5 | 2,34<br>19,9<br>21/12,5 | 3,49<br>30,3<br>21/12,7 | 4,55<br>39,5<br>21/12,7 | 6,8<br>61<br>21/13    | 8,9<br>79<br>21/13    | 14,2<br>120<br>21/12,5 | 18,6<br>158<br>21/12,5  | 27,9<br>241<br>21/12,7  | 36,2<br>313<br>21/12,7   | 50*<br>444<br>21/12,9   | 75*<br>620<br>21/12,1   | 83**<br>709<br>21/12,5  |
| 100      | 1 120 | 10    | 0,37<br>3,41<br>21/10,8                  | 0,83<br>6,9<br>21/9,76 | 1,65<br>14,6<br>21/10,4 | 2,34<br>20,7<br>21/10,4 | 3,45<br>30,8<br>21/10,5 | 4,63<br>41,3<br>21/10,5 | 7,4<br>61<br>21/9,79  | 9,9<br>82<br>21/9,79  | 13,8<br>122<br>21/10,4 | 18,7<br>165<br>21/10,4  | 27,5<br>245<br>21/10,4  | 36,8<br>328<br>21/10,4   | 45,7*<br>387<br>21/9,92 | 69*<br>627<br>21/10,7   | 95**<br>871<br>21/10,8  |
|          |       |       | 0,401<br>3,45<br>21/8,12                 | 0,86<br>7<br>21/7,61   | 1,72<br>14,8<br>21/8,13 | 2,37<br>20,4<br>21/8,13 | 3,65<br>31,2<br>21/8,05 | 4,39<br>37,5<br>21/8,05 | 7,7<br>62<br>21/7,64  | 9,3<br>75<br>21/7,64  | 14,4<br>124<br>21/8,11 | 18,7<br>161<br>21/8,11  | 29,1<br>248<br>21/8,03  | 35,2<br>300<br>21/8,03   | —                       | 76*<br>656<br>21/8,12   | 77*<br>688<br>21/8,43   |
| 90       | 900   | 6,3   | 0,412<br>3,51<br>21/6,33                 | 0,7<br>5,8<br>21/6,08  | 1,38<br>12,1<br>21/6,52 | 1,78<br>15,6<br>21/6,52 | 2,92<br>25<br>21/6,36   | 3,5<br>30<br>21/6,36    | 6,1<br>50<br>21/6,1   | 7,3<br>60<br>21/6,1   | 11,7<br>102<br>21/6,5  | 14,1<br>123<br>21/6,5   | 23,4<br>200<br>21/6,35  | 27,6<br>236<br>21/6,35   | —                       | 56*<br>479<br>21/6,34   | —                       |
| 100      | 1 250 | 12,5  | 0,308<br>3,17<br>21/13,5                 | 0,69<br>6,8<br>21/13   | 1,52<br>14,5<br>21/12,5 | 2,1<br>20<br>21/12,5    | 3,14<br>30,5<br>21/12,7 | 4,1<br>39,8<br>21/12,7  | 6,1<br>61<br>21/13    | 8<br>80<br>21/13      | 12,7<br>121<br>21/12,5 | 16,7<br>159<br>21/12,5  | 25<br>243<br>21/12,7    | 32,5<br>315<br>21/12,7   | 45,2<br>447<br>21/12,9  | 68*<br>623<br>21/12,1   | 75*<br>712<br>21/12,5   |
|          |       |       | 0,333<br>3,43<br>21/10,8                 | 0,74<br>6,9<br>21/9,76 | 1,48<br>14,7<br>21/10,4 | 2,1<br>20,9<br>21/10,4  | 3,1<br>31<br>21/10,5    | 4,16<br>41,6<br>21/10,5 | 6,6<br>62<br>21/9,79  | 8,9<br>83<br>21/9,79  | 12,4<br>123<br>21/10,4 | 16,8<br>166<br>21/10,4  | 24,7<br>246<br>21/10,4  | 33,1<br>330<br>21/10,4   | 41*<br>388<br>21/9,92   | 62<br>632<br>21/10,7    | 85*<br>875<br>21/10,8   |
| 90       | 800   | 8     | 0,359<br>3,48<br>21/8,12                 | 0,77<br>7<br>21/7,61   | 1,54<br>15<br>21/8,13   | 2,12<br>20,5<br>21/8,13 | 3,27<br>31,4<br>21/8,05 | 3,9<br>37,5<br>21/8,05  | 6,9<br>63<br>21/7,64  | 8,2<br>75<br>21/7,64  | 12,9<br>124<br>21/8,11 | 16,7<br>162<br>21/8,11  | 26<br>250<br>21/8,03    | 31,3<br>300<br>21/8,03   | —                       | 68*<br>661<br>21/8,12   | 69*<br>691<br>21/8,43   |
|          |       |       | 0,368<br>3,53<br>21/6,33                 | 0,63<br>5,8<br>21/6,08 | 1,23<br>12,1<br>21/6,52 | 1,59<br>15,7<br>21/6,52 | 2,59<br>25<br>21/6,36   | 3,11<br>30<br>21/6,36   | 5,4<br>50<br>21/6,1   | 6,5<br>60<br>21/6,1   | 10,4<br>103<br>21/6,5  | 12,6<br>124<br>21/6,5   | 20,8<br>200<br>21/6,35  | 24,5<br>236<br>21/6,35   | —                       | 50<br>481<br>21/6,34    | —                       |
| 90       | 1 400 | 16    | —                                        | 0,58<br>6,4<br>21/16,2 | 1,33<br>14,8<br>21/16,3 | 1,72<br>19,2<br>21/16,3 | 2,79<br>31,2<br>21/16,4 | 3,39<br>38<br>21/16,4   | 5,8<br>62<br>21/15,7  | 7,2<br>77<br>21/15,7  | 11,1<br>124<br>21/16,3 | 15<br>168<br>21/16,3    | 23,5<br>244<br>21/15,2  | 30,5<br>317<br>21/15,2   | 42,4<br>448<br>21/15,5  | 58<br>634<br>21/15,9    | 79*<br>863<br>21/16     |
|          |       |       | 0,278<br>3,19<br>21/13,5                 | 0,62<br>6,9<br>21/13   | 1,37<br>14,6<br>21/12,5 | 1,89<br>20,2<br>21/12,5 | 2,84<br>30,8<br>21/12,7 | 3,7<br>40,1<br>21/12,7  | 5,5<br>61<br>21/13    | 7,2<br>80<br>21/13    | 11,5<br>122<br>21/12,5 | 15,1<br>160<br>21/12,5  | 22,6<br>245<br>21/12,7  | 29,3<br>318<br>21/12,7   | 40,8<br>450<br>21/12,9  | 61<br>626<br>21/12,1    | 67*<br>716<br>21/12,5   |
| 90       | 1 120 | 12,5  | 0,302<br>3,45<br>21/10,8                 | 0,67<br>7<br>21/9,76   | 1,34<br>14,8<br>21/10,4 | 1,9<br>21<br>21/10,4    | 2,81<br>31,2<br>21/10,5 | 3,77<br>41,9<br>21/10,5 | 6<br>62<br>21/9,79    | 8,1<br>84<br>21/9,79  | 11,2<br>124<br>21/10,4 | 15,2<br>167<br>21/10,4  | 22,4<br>248<br>21/10,4  | 30<br>332<br>21/10,4     | 37,1<br>390<br>21/9,92  | 56<br>636<br>21/10,7    | 77*<br>879<br>21/10,8   |
| 90       | 900   | 10    | —                                        | —                      | —                       | —                       | —                       | —                       | —                     | —                     | —                      | —                       | —                       | —                        | —                       | —                       | —                       |

For  $n_1 > 1\ 400\ \text{min}^{-1}$  or  $n_1 < 355\ \text{min}^{-1}$  see ch. 3.4 and the table on page 36.  
 \* In case of ambient temperature  $> 30\ ^\circ\text{C}$  check the thermal power (ch. 3.2).  
 \*\* Check the thermal power (ch. 3.2).

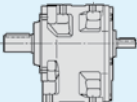


| $n_{N2}$   $n_1$<br>min <sup>-1</sup> |       |      | $i_N$                   | Gear reducer size                        |                        |                        |                        |                        |                      |                      |                       |                       |                       |                       |                       |                       |                       |  |  |
|---------------------------------------|-------|------|-------------------------|------------------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------------------------------------------------------------------|--|
|                                       |       |      |                         | $P_{N2}$ kW<br>$M_{N2}$ daN m<br>... / i |                        |                        |                        |                        |                      |                      |                       |                       |                       |                       |                       |                       |                       |                                                                                     |  |
|                                       |       |      |                         | 32                                       | 40                     | 50                     | 51                     | 63                     | 64                   | 80                   | 81                    | 100                   | 101                   | 125                   | 126                   | 140                   | 160                   |                                                                                     |  |
| 90                                    | 710   | 8    | 0,321<br>3,51<br>2/8,12 | 0,69<br>7,1<br>2/7,61                    | 1,38<br>15,1<br>2/8,13 | 1,89<br>20,7<br>2/8,13 | 2,93<br>31,7<br>2/8,05 | 3,46<br>37,5<br>2/8,05 | 6,2<br>63<br>2/7,64  | 7,3<br>75<br>2/7,64  | 11,5<br>125<br>2/8,11 | 14,9<br>163<br>2/8,11 | 23,3<br>251<br>2/8,03 | 27,8<br>300<br>2/8,03 | —                     | 61<br>665<br>2/8,12   | 61*<br>694<br>2/8,43  |                                                                                     |  |
|                                       | 560   | 6,3  | 0,329<br>3,56<br>2/6,33 | 0,56<br>5,8<br>2/6,08                    | 1,1<br>12,2<br>2/6,52  | 1,42<br>15,8<br>2/6,52 | 2,3<br>25<br>2/6,36    | 2,76<br>30<br>2/6,36   | 4,81<br>50<br>2/6,1  | 5,8<br>60<br>2/6,1   | 9,3<br>103<br>2/6,5   | 11,2<br>124<br>2/6,5  | 18,5<br>200<br>2/6,35 | 21,8<br>236<br>2/6,35 | —                     | 44,7<br>484<br>2/6,34 | —                     |                                                                                     |  |
|                                       | 1 250 | 16   | —                       | 0,52<br>6,4<br>2/16,2                    | 1,2<br>15,1<br>2/16,3  | 1,55<br>19,3<br>2/16,3 | 2,51<br>31,5<br>2/16,4 | 3,04<br>38,2<br>2/16,4 | 5,3<br>63<br>2/15,7  | 6,5<br>77<br>2/15,7  | 10<br>125<br>2/16,3   | 13,5<br>169<br>2/16,3 | 21,2<br>246<br>2/15,2 | 27,5<br>319<br>2/15,2 | 38,2<br>452<br>2/15,5 | 53<br>639<br>2/15,9   | 71*<br>867<br>2/16    |                                                                                     |  |
| 80                                    | 1 000 | 12,5 | 0,25<br>3,21<br>2/13,5  | 0,56<br>6,9<br>2/13                      | 1,24<br>14,7<br>2/12,5 | 1,7<br>20,3<br>2/12,5  | 2,55<br>31<br>2/12,7   | 3,33<br>40,4<br>2/12,7 | 4,98<br>62<br>2/13   | 6,5<br>81<br>2/13    | 10,3<br>123<br>2/12,5 | 13,6<br>161<br>2/12,5 | 20,3<br>246<br>2/12,7 | 26,4<br>320<br>2/12,7 | 36,6<br>453<br>2/12,9 | 55<br>629<br>2/12,1   | 60<br>719<br>2/12,5   |                                                                                     |  |
|                                       | 800   | 10   | 0,27<br>3,48<br>2/10,8  | 0,6<br>7<br>2/9,76                       | 1,21<br>15<br>2/10,4   | 1,7<br>21,1<br>2/10,4  | 2,52<br>31,4<br>2/10,5 | 3,38<br>42,2<br>2/10,5 | 5,4<br>63<br>2/9,79  | 7,2<br>84<br>2/9,79  | 10,1<br>124<br>2/10,4 | 13,6<br>169<br>2/10,4 | 20,1<br>250<br>2/10,4 | 26,9<br>334<br>2/10,4 | 33,1<br>392<br>2/9,92 | 50<br>641<br>2/10,7   | 69<br>883<br>2/10,8   |                                                                                     |  |
|                                       | 630   | 8    | 0,287<br>3,53<br>2/8,12 | 0,62<br>7,1<br>2/7,61                    | 1,23<br>15,2<br>2/8,13 | 1,68<br>20,8<br>2/8,13 | 2,62<br>31,9<br>2/8,05 | 3,07<br>37,5<br>2/8,05 | 5,5<br>64<br>2/7,64  | 6,5<br>75<br>2/7,64  | 10,3<br>126<br>2/8,11 | 13,3<br>164<br>2/8,11 | 20,8<br>253<br>2/8,03 | 24,7<br>300<br>2/8,03 | —                     | 54<br>670<br>2/8,12   | 55<br>697<br>2/8,43   |                                                                                     |  |
|                                       | 1 400 | 20   | —                       | 0,52<br>7,1<br>2/19,9                    | 1,11<br>14,8<br>2/19,6 | 1,53<br>20,4<br>2/19,6 | 2,29<br>31,2<br>2/20   | 2,98<br>40,7<br>2/20   | 4,39<br>62<br>2/20,8 | 5,7<br>82<br>2/20,8  | 9,2<br>124<br>2/19,6  | 12,2<br>163<br>2/19,6 | 17,5<br>227<br>2/19   | 21,4<br>278<br>2/19   | 30,4<br>394<br>2/19   | 43,1<br>557<br>2/19   | 59<br>789<br>2/19,5   |                                                                                     |  |
| 71                                    | 1 120 | 16   | —                       | 0,466<br>6,4<br>2/16,2                   | 1,08<br>15,1<br>2/16,3 | 1,39<br>19,4<br>2/16,3 | 2,26<br>31,7<br>2/16,4 | 2,74<br>38,4<br>2/16,4 | 4,74<br>63<br>2/15,7 | 5,8<br>78<br>2/15,7  | 9<br>125<br>2/16,3    | 12,2<br>170<br>2/16,3 | 19,1<br>247<br>2/15,2 | 24,8<br>321<br>2/15,2 | 34,4<br>455<br>2/15,5 | 47,4<br>643<br>2/15,9 | 64<br>871<br>2/16     |                                                                                     |  |
|                                       | 900   | 12,5 | 0,226<br>3,23<br>2/13,5 | 0,51<br>7<br>2/13                        | 1,12<br>14,8<br>2/12,5 | 1,54<br>20,4<br>2/12,5 | 2,31<br>31,2<br>2/12,7 | 3,01<br>40,7<br>2/12,7 | 4,51<br>62<br>2/13   | 5,9<br>81<br>2/13    | 9,4<br>124<br>2/12,5  | 12,3<br>162<br>2/12,5 | 18,4<br>248<br>2/12,7 | 23,9<br>322<br>2/12,7 | 33,2<br>456<br>2/12,9 | 49,3<br>631<br>2/12,1 | 54<br>722<br>2/12,5   |                                                                                     |  |
|                                       | 710   | 10   | 0,241<br>3,51<br>2/10,8 | 0,54<br>7,1<br>2/9,76                    | 1,08<br>15,1<br>2/10,4 | 1,52<br>21,3<br>2/10,4 | 2,25<br>31,7<br>2/10,5 | 3,02<br>42,5<br>2/10,5 | 4,81<br>63<br>2/9,79 | 6,4<br>85<br>2/9,79  | 9<br>125<br>2/10,4    | 12,2<br>170<br>2/10,4 | 17,9<br>251<br>2/10,4 | 24<br>337<br>2/10,4   | 29,5<br>394<br>2/9,92 | 44,8<br>645<br>2/10,7 | 61<br>887<br>2/10,8   |                                                                                     |  |
|                                       | 560   | 8    | 0,257<br>3,56<br>2/8,12 | 0,55<br>7,2<br>2/7,61                    | 1,1<br>15,3<br>2/8,13  | 1,51<br>20,9<br>2/8,13 | 2,34<br>32,2<br>2/8,05 | 2,73<br>37,5<br>2/8,05 | 4,93<br>64<br>2/7,64 | 5,8<br>75<br>2/7,64  | 9,2<br>127<br>2/8,11  | 11,9<br>164<br>2/8,11 | 18,6<br>255<br>2/8,03 | 21,9<br>300<br>2/8,03 | —                     | 48,7<br>675<br>2/8,12 | 48,8<br>701<br>2/8,43 |                                                                                     |  |
| 63                                    | 1 250 | 20   | —                       | 0,47<br>7,2<br>2/19,9                    | 1<br>15<br>2/19,6      | 1,37<br>20,6<br>2/19,6 | 2,06<br>31,5<br>2/20   | 2,68<br>41<br>2/20     | 3,95<br>63<br>2/20,8 | 5,2<br>82<br>2/20,8  | 8,3<br>125<br>2/19,6  | 10,9<br>164<br>2/19,6 | 15,7<br>228<br>2/19   | 19,3<br>280<br>2/19   | 27,3<br>397<br>2/19   | 38,7<br>560<br>2/19   | 53<br>794<br>2/19,5   |                                                                                     |  |
|                                       | 1 000 | 16   | —                       | 0,418<br>6,5<br>2/16,2                   | 0,97<br>15,2<br>2/16,3 | 1,25<br>19,5<br>2/16,3 | 2,03<br>31,9<br>2/16,4 | 2,46<br>38,5<br>2/16,4 | 4,26<br>64<br>2/15,7 | 5,2<br>78<br>2/15,7  | 8,1<br>126<br>2/16,3  | 11<br>171<br>2/16,3   | 17,2<br>249<br>2/15,2 | 22,3<br>323<br>2/15,2 | 30,9<br>458<br>2/15,5 | 42,6<br>648<br>2/15,9 | 57<br>875<br>2/16     |                                                                                     |  |
|                                       | 800   | 12,5 | 0,202<br>3,25<br>2/13,5 | 0,454<br>7,0<br>2/13                     | 1<br>15<br>2/12,5      | 1,38<br>20,6<br>2/12,5 | 2,07<br>31,4<br>2/12,7 | 2,7<br>41<br>2/12,7    | 4,04<br>63<br>2/13   | 5,3<br>82<br>2/13    | 8,4<br>124<br>2/12,5  | 11<br>164<br>2/12,5   | 16,5<br>250<br>2/12,7 | 21,4<br>324<br>2/12,7 | 29,7<br>459<br>2/12,9 | 44<br>634<br>2/12,1   | 48,6<br>725<br>2/12,5 |                                                                                     |  |
|                                       | 630   | 10   | 0,216<br>3,53<br>2/10,8 | 0,482<br>7,1<br>2/9,76                   | 0,96<br>15,2<br>2/10,4 | 1,36<br>21,4<br>2/10,4 | 2,01<br>31,9<br>2/10,5 | 2,7<br>42,8<br>2/10,5  | 4,3<br>64<br>2/9,79  | 5,8<br>86<br>2/9,79  | 8<br>126<br>2/10,4    | 10,9<br>171<br>2/10,4 | 16<br>253<br>2/10,4   | 21,5<br>339<br>2/10,4 | 26,4<br>396<br>2/9,92 | 40<br>650<br>2/10,7   | 55<br>891<br>2/10,8   |                                                                                     |  |
| 56                                    | 1 400 | 25   | —                       | —                                        | —                      | —                      | —                      | —                      | —                    | —                    | —                     | —                     | 14,5<br>259<br>3/26,2 | 19,4<br>347<br>3/26,2 | 22,5<br>450<br>3/29,3 | 39,9<br>694<br>3/25,5 | 44,5<br>897<br>3/29,5 |                                                                                     |  |
|                                       | 1 400 | 25   | —                       | 0,393<br>7,1<br>2/26,5                   | 0,83<br>13,7<br>2/24,1 | 1,09<br>18,0<br>2/24,1 | 1,7<br>29<br>2/25      | 2,08<br>35,4<br>2/25   | 3,27<br>58<br>2/26   | 4<br>71<br>2/26      | 7<br>115<br>2/24,1    | 8,6<br>141<br>2/24,1  | 12,5<br>206<br>2/24,3 | —                     | —                     | —                     | —                     |                                                                                     |  |
|                                       | 1 120 | 20   | —                       | 0,424<br>7,2<br>2/19,9                   | 0,9<br>15,1<br>2/19,6  | 1,24<br>20,7<br>2/19,6 | 1,86<br>31,7<br>2/20   | 2,42<br>41,3<br>2/20   | 3,57<br>63<br>2/20,8 | 4,65<br>83<br>2/20,8 | 7,5<br>125<br>2/19,6  | 9,9<br>165<br>2/19,6  | 14,2<br>230<br>2/19   | 17,4<br>281<br>2/19   | 24,6<br>399<br>2/19   | 34,9<br>564<br>2/19   | 48<br>799<br>2/19,5   |                                                                                     |  |
|                                       | 900   | 16   | —                       | 0,379<br>6,5<br>2/16,2                   | 0,88<br>15,3<br>2/16,3 | 1,13<br>19,6<br>2/16,3 | 1,84<br>32,1<br>2/16,4 | 2,22<br>38,7<br>2/16,4 | 3,86<br>64<br>2/15,7 | 4,71<br>78<br>2/15,7 | 7,3<br>127<br>2/16,3  | 9,9<br>172<br>2/16,3  | 15,5<br>251<br>2/15,2 | 20,2<br>326<br>2/15,2 | 28<br>461<br>2/15,5   | 38,6<br>652<br>2/15,9 | 52<br>879<br>2/16     |                                                                                     |  |
|                                       | 710   | 12,5 | 0,18<br>3,27<br>2/13,5  | 0,406<br>7,1<br>2/13                     | 0,9<br>15,1<br>2/12,5  | 1,23<br>20,7<br>2/12,5 | 1,85<br>31,7<br>2/12,7 | 2,41<br>41,3<br>2/12,7 | 3,61<br>63<br>2/13   | 4,72<br>83<br>2/13   | 7,5<br>125<br>2/12,5  | 9,9<br>165<br>2/12,5  | 14,7<br>251<br>2/12,7 | 19,1<br>327<br>2/12,7 | 26,5<br>462<br>2/12,9 | 39,3<br>637<br>2/12,1 | 43,3<br>729<br>2/12,5 |                                                                                     |  |
| 50                                    | 560   | 10   | 0,193<br>3,56<br>2/10,8 | 0,432<br>7,2<br>2/9,76                   | 0,86<br>15,3<br>2/10,4 | 1,22<br>21,6<br>2/10,4 | 1,8<br>32,2<br>2/10,5  | 2,42<br>43,2<br>2/10,5 | 3,85<br>64<br>2/9,79 | 5,2<br>86<br>2/9,79  | 7,2<br>127<br>2/10,4  | 9,8<br>173<br>2/10,4  | 14,3<br>255<br>2/10,4 | 19,2<br>342<br>2/10,4 | 23,5<br>398<br>2/9,92 | 35,8<br>655<br>2/10,7 | 48,8<br>896<br>2/10,8 |                                                                                     |  |
|                                       | 1 250 | 25   | —                       | —                                        | —                      | —                      | —                      | —                      | —                    | —                    | —                     | —                     | 13<br>261<br>3/26,2   | 17,4<br>349<br>3/26,2 | 20,3<br>453<br>3/29,3 | 35,9<br>699<br>3/25,5 | 40<br>904<br>3/29,5   |                                                                                     |  |

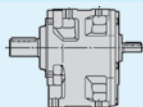
For  $n_1 > 1\,400\text{ min}^{-1}$  or  $n_1 < 355\text{ min}^{-1}$  see ch. 3.4 and the table on page 36.  
 \* In case of ambient temperature  $> 30\text{ °C}$  check the thermal power (ch. 3.2).

| $n_{N2}$   $n_1$<br>min <sup>-1</sup> |       |      | $i_N$                    | Gear reducer size                        |                         |                         |                         |                         |                       |                       |                        |                       |                        |                        |                        |                        |                        |  |
|---------------------------------------|-------|------|--------------------------|------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-----------------------|------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------------------------------------------------------------------|
|                                       |       |      |                          | $P_{N2}$ kW<br>$M_{N2}$ daN m<br>... / i |                         |                         |                         |                         |                       |                       |                        |                       |                        |                        |                        |                        |                        |                                                                                     |
|                                       |       |      |                          | 32                                       | 40                      | 50                      | 51                      | 63                      | 64                    | 80                    | 81                     | 100                   | 101                    | 125                    | 126                    | 140                    | 160                    |                                                                                     |
| 50                                    | 1 250 | 25   | —                        | 0,354<br>7,2<br>21/26,5                  | 0,75<br>13,8<br>21/24,1 | 0,98<br>18,1<br>21/24,1 | 1,53<br>29,1<br>21/25   | 1,87<br>35,6<br>21/25   | 2,94<br>58<br>21/26   | 3,59<br>71<br>21/26   | 6,3<br>116<br>21/24,1  | 7,7<br>142<br>21/24,1 | 11,2<br>207<br>21/24,3 | —                      | —                      | —                      | —                      |                                                                                     |
|                                       | 1 000 | 20   | —                        | 0,381<br>7,3<br>21/19,9                  | 0,81<br>15,2<br>21/19,6 | 1,11<br>20,8<br>21/19,6 | 1,67<br>31,9<br>21/20   | 2,18<br>41,6<br>21/20   | 3,21<br>64<br>21/20,8 | 4,19<br>83<br>21/20,8 | 6,7<br>126<br>21/19,6  | 8,9<br>166<br>21/19,6 | 12,7<br>231<br>21/19   | 15,6<br>283<br>21/19   | 22,1<br>402<br>21/19   | 31,3<br>567<br>21/19   | 43,1<br>804<br>21/19,5 |                                                                                     |
|                                       | 800   | 16   | —                        | 0,339<br>6,6<br>21/16,2                  | 0,79<br>15,4<br>21/16,3 | 1,01<br>19,7<br>21/16,3 | 1,65<br>32,3<br>21/16,4 | 1,98<br>38,9<br>21/16,4 | 3,46<br>65<br>21/15,7 | 4,21<br>79<br>21/15,7 | 6,6<br>128<br>21/16,3  | 8,9<br>174<br>21/16,3 | 13,9<br>252<br>21/15,2 | 18,1<br>328<br>21/15,2 | 25<br>462<br>21/15,5   | 34,6<br>656<br>21/15,9 | 46,2<br>883<br>21/16   |                                                                                     |
|                                       | 630   | 12,5 | 0,161<br>3,29<br>21/13,5 | 0,363<br>7,1<br>21/13                    | 0,8<br>15,2<br>21/12,5  | 1,1<br>20,9<br>21/12,5  | 1,65<br>31,9<br>21/12,7 | 2,16<br>41,6<br>21/12,7 | 3,23<br>64<br>21/13   | 4,22<br>83<br>21/13   | 6,7<br>126<br>21/12,5  | 8,8<br>166<br>21/12,5 | 13,2<br>253<br>21/12,7 | 17,1<br>329<br>21/12,7 | 23,6<br>462<br>21/12,9 | 35<br>640<br>21/12,1   | 38,6<br>732<br>21/12,5 |                                                                                     |
| 45                                    | 1 400 | 31,5 | —                        | —                                        | 0,71<br>15,5<br>31/31,9 | 1<br>21,8<br>31/31,9    | 1,4<br>32,7<br>31/34,2  | 1,88<br>43,9<br>31/34,2 | 2,93<br>65<br>31/32,8 | 3,93<br>88<br>31/32,8 | 5,9<br>129<br>31/32    | 8<br>175<br>31/32     | 11,1<br>259<br>31/34,1 | 14,9<br>347<br>31/34,1 | 22,1<br>489<br>31/32,4 | 31,1<br>694<br>31/32,7 | 42,3<br>978<br>31/33,9 |                                                                                     |
|                                       | 1 400 | 31,5 | —                        | 0,293<br>6,6<br>21/33,1                  | 0,63<br>12,6<br>21/29,3 | —                       | 1,19<br>26<br>21/31,9   | —                       | 2,4<br>52<br>21/31,8  | —                     | 5,4<br>107<br>21/29,3  | —                     | —                      | —                      | —                      | —                      | —                      |                                                                                     |
|                                       | 1 120 | 25   | —                        | —                                        | —                       | —                       | —                       | —                       | —                     | —                     | —                      | —                     | 11,7<br>262<br>31/26,2 | 15,7<br>351<br>31/26,2 | 18,3<br>457<br>31/29,3 | 32,3<br>703<br>31/25,5 | 36,1<br>910<br>31/29,5 |                                                                                     |
|                                       | 1 120 | 25   | —                        | 0,319<br>7,2<br>21/26,5                  | 0,67<br>13,8<br>21/24,1 | 0,88<br>18,2<br>21/24,1 | 1,37<br>29,3<br>21/25   | 1,68<br>35,8<br>21/25   | 2,65<br>59<br>21/26   | 3,23<br>72<br>21/26   | 5,7<br>117<br>21/24,1  | 6,9<br>143<br>21/24,1 | 10,1<br>208<br>21/24,3 | —                      | —                      | —                      | —                      |                                                                                     |
|                                       | 900   | 20   | —                        | 0,345<br>7,3<br>21/19,9                  | 0,73<br>15,3<br>21/19,6 | 1,01<br>21<br>21/19,6   | 1,51<br>32,1<br>21/20   | 1,97<br>41,9<br>21/20   | 2,91<br>64<br>21/20,8 | 3,79<br>84<br>21/19,6 | 6,1<br>127<br>21/19,6  | 8<br>167<br>21/19,6   | 11,5<br>232<br>21/19   | 14,1<br>285<br>21/19   | 20<br>404<br>21/19     | 28,4<br>570<br>21/19   | 39<br>808<br>21/19,5   |                                                                                     |
|                                       | 710   | 16   | —                        | 0,302<br>6,6<br>21/16,2                  | 0,71<br>15,5<br>21/16,3 | 0,9<br>19,8<br>21/16,3  | 1,47<br>32,6<br>21/16,4 | 1,77<br>39,1<br>21/16,4 | 3,09<br>65<br>21/15,7 | 3,76<br>79<br>21/15,7 | 5,9<br>129<br>21/16,3  | 8<br>175<br>21/16,3   | 12,4<br>254<br>21/15,2 | 16,2<br>330<br>21/15,2 | 22,2<br>462<br>21/15,5 | 30,9<br>661<br>21/15,9 | 41,2<br>887<br>21/16   |                                                                                     |
|                                       | 560   | 12,5 | 0,144<br>3,31<br>21/13,5 | 0,325<br>7,2<br>21/13                    | 0,72<br>15,3<br>21/12,5 | 0,99<br>21<br>21/12,5   | 1,48<br>32,2<br>21/12,7 | 1,93<br>41,9<br>21/12,7 | 2,89<br>64<br>21/13   | 3,78<br>84<br>21/13   | 6<br>127<br>21/12,5    | 7,9<br>168<br>21/12,5 | 11,8<br>255<br>21/12,7 | 15,3<br>332<br>21/12,7 | 20,9<br>462<br>21/12,9 | 31,3<br>643<br>21/12,1 | 34,5<br>736<br>21/12,5 |                                                                                     |
| 40                                    | 1 250 | 31,5 | —                        | —                                        | 0,64<br>15,6<br>31/31,9 | 0,9<br>22<br>31/31,9    | 1,26<br>32,9<br>31/34,2 | 1,69<br>44,2<br>31/34,2 | 2,63<br>66<br>31/32,8 | 3,53<br>88<br>31/32,8 | 5,3<br>129<br>31/32    | 7,2<br>176<br>31/32   | 10<br>261<br>31/34,1   | 13,4<br>349<br>31/34,1 | 19,9<br>492<br>31/32,4 | 28<br>699<br>31/32,7   | 38<br>984<br>31/33,9   |                                                                                     |
|                                       | 1 250 | 31,5 | —                        | 0,263<br>6,6<br>21/33,1                  | 0,57<br>12,7<br>21/29,3 | —                       | 1,07<br>26,1<br>21/31,9 | —                       | 2,16<br>52<br>21/31,8 | —                     | 4,81<br>108<br>21/29,3 | —                     | —                      | —                      | —                      | —                      | —                      |                                                                                     |
|                                       | 1 000 | 25   | —                        | —                                        | —                       | —                       | —                       | —                       | —                     | —                     | —                      | —                     | 10,5<br>264<br>31/26,2 | 14,1<br>354<br>31/26,2 | 16,5<br>460<br>31/29,3 | 29,1<br>707<br>31/25,5 | 32,5<br>916<br>31/29,5 |                                                                                     |
|                                       | 1 000 | 25   | —                        | 0,287<br>7,3<br>21/26,5                  | 0,6<br>13,9<br>21/24,1  | 0,79<br>18,3<br>21/24,1 | 1,23<br>29,5<br>21/25   | 1,51<br>36<br>21/25     | 2,38<br>59<br>21/26   | 2,9<br>72<br>21/26    | 5,1<br>117<br>21/24,1  | 6,2<br>144<br>21/24,1 | 9<br>209<br>21/24,3    | —                      | —                      | —                      | —                      |                                                                                     |
|                                       | 800   | 20   | —                        | 0,309<br>7,4<br>21/19,9                  | 0,66<br>15,4<br>21/19,6 | 0,9<br>21,1<br>21/19,6  | 1,35<br>32,3<br>21/20   | 1,77<br>42,2<br>21/20   | 2,6<br>65<br>21/20,8  | 3,4<br>84<br>21/20,8  | 5,5<br>128<br>21/19,6  | 7,2<br>169<br>21/19,6 | 10,3<br>233<br>21/19   | 12,6<br>287<br>21/19   | 17,9<br>406<br>21/19   | 25,4<br>574<br>21/19   | 34,9<br>813<br>21/19,5 |                                                                                     |
|                                       | 630   | 16   | —                        | 0,27<br>6,6<br>21/16,2                   | 0,63<br>15,7<br>21/16,3 | 0,8<br>19,9<br>21/16,3  | 1,32<br>32,8<br>21/16,4 | 1,58<br>39,3<br>21/16,4 | 2,76<br>66<br>21/15,7 | 3,35<br>80<br>21/15,7 | 5,2<br>130<br>21/16,3  | 7,1<br>176<br>21/16,3 | 11,1<br>256<br>21/15,2 | 14,4<br>333<br>21/15,2 | 19,7<br>462<br>21/15,5 | 27,6<br>666<br>21/15,9 | 36,8<br>891<br>21/16   |                                                                                     |
| 35,5                                  | 1 400 | 40   | —                        | 0,215<br>5,9<br>21/40,4                  | 0,59<br>15,5<br>31/38,4 | 0,81<br>21,2<br>31/38,4 | 1,15<br>32,7<br>31/41,6 | 1,5<br>42,6<br>31/41,6  | 2,2<br>65<br>31/43,6  | 2,87<br>85<br>31/43,6 | 4,91<br>129<br>31/38,4 | 6,5<br>170<br>31/38,4 | 9,2<br>259<br>31/41,5  | 11,9<br>337<br>31/41,5 | 16,5<br>476<br>31/42,3 | 22,9<br>674<br>31/43,1 | 32,3<br>953<br>31/43,3 |                                                                                     |
|                                       | 1 120 | 31,5 | —                        | —                                        | 0,58<br>15,8<br>31/31,9 | 0,81<br>22,1<br>31/31,9 | 1,14<br>33,1<br>31/34,2 | 1,53<br>44,5<br>31/34,2 | 2,37<br>66<br>31/32,8 | 3,19<br>89<br>31/32,8 | 4,78<br>130<br>31/32   | 6,5<br>177<br>31/32   | 9<br>262<br>31/34,1    | 12,1<br>351<br>31/34,1 | 17,9<br>495<br>31/32,4 | 25,2<br>703<br>31/32,7 | 34,3<br>990<br>31/33,9 |                                                                                     |
|                                       | 1 120 | 31,5 | —                        | 0,237<br>6,7<br>21/33,1                  | 0,51<br>12,7<br>21/29,3 | —                       | 0,96<br>26,2<br>21/31,9 | —                       | 1,94<br>53<br>21/31,8 | —                     | 4,33<br>108<br>21/29,3 | —                     | —                      | —                      | —                      | —                      | —                      |                                                                                     |
|                                       | 900   | 25   | —                        | —                                        | —                       | —                       | —                       | —                       | —                     | —                     | —                      | —                     | 9,5<br>265<br>31/26,2  | 12,8<br>355<br>31/26,2 | 14,9<br>463<br>31/29,3 | 26,2<br>710<br>31/25,5 | 29,4<br>922<br>31/29,5 |                                                                                     |
|                                       | 900   | 25   | —                        | 0,26<br>7,3<br>21/26,5                   | 0,55<br>14<br>21/24,1   | 0,72<br>18,4<br>21/24,1 | 1,12<br>29,6<br>21/25   | 1,37<br>36,2<br>21/25   | 2,15<br>59<br>21/26   | 2,63<br>72<br>21/26   | 4,61<br>118<br>21/24,1 | 5,7<br>144<br>21/24,1 | 8,2<br>210<br>21/24,3  | —                      | —                      | —                      | —                      |                                                                                     |

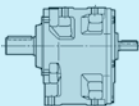
For  $n_1 > 1\ 400\ \text{min}^{-1}$  or  $n_1 < 355\ \text{min}^{-1}$  see ch. 3.4 and the table on page 36.

| $n_{N2}$   $n_1$<br>$\text{min}^{-1}$ |       |      | $i_N$ | Gear reducer size                        |                          |                         |                         |                         |                       |                       |                        |                        |                       |                        |                        |                        |                          |  |     |
|---------------------------------------|-------|------|-------|------------------------------------------|--------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-----------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|------------------------|--------------------------|-------------------------------------------------------------------------------------|-----|
|                                       |       |      |       | $P_{N2}$ kW<br>$M_{N2}$ daN m<br>... / i |                          |                         |                         |                         |                       |                       |                        |                        |                       |                        |                        |                        |                          |                                                                                     |     |
|                                       |       |      |       | 32                                       | 40                       | 50                      | 51                      | 63                      | 64                    | 80                    | 81                     | 100                    | 101                   | 125                    | 126                    | 140                    | 160                      |                                                                                     | 180 |
| 35,5                                  | 710   | 20   | –     | 0,276<br>7,4<br>21/19,9                  | 0,59<br>15,5<br>21/19,6  | 0,81<br>21,3<br>21/19,6 | 1,21<br>32,6<br>21/20   | 1,58<br>42,5<br>21/20   | 2,33<br>65<br>21/20,8 | 3,04<br>85<br>21/20,8 | 4,88<br>129<br>21/19,6 | 6,4<br>170<br>21/19,6  | 9,2<br>235<br>21/19   | 11,3<br>289<br>21/19   | 16<br>409<br>21/19     | 22,7<br>578<br>21/19   | 31,2<br>819<br>21/19,5   |                                                                                     |     |
|                                       | 560   | 16   | –     | 0,241<br>6,7<br>21/16,2                  | 0,57<br>15,8<br>21/16,3  | 0,72<br>20<br>21/16,3   | 1,18<br>33,1<br>21/16,4 | 1,41<br>39,5<br>21/16,4 | 2,47<br>66<br>21/15,7 | 2,99<br>80<br>21/15,7 | 4,68<br>130<br>21/16,3 | 6,4<br>177<br>21/16,3  | 9,9<br>258<br>21/15,2 | 12,9<br>335<br>21/15,2 | 17,5<br>462<br>21/15,5 | 24,7<br>671<br>21/15,9 | 32,8<br>896<br>21/16     |                                                                                     |     |
| 31,5                                  | 1 250 | 40   | –     | 0,193<br>6<br>21/40,4                    | 0,53<br>15,6<br>31/38,4  | 0,73<br>21,4<br>31/38,4 | 1,04<br>32,9<br>31/41,6 | 1,35<br>42,9<br>31/41,6 | 1,98<br>66<br>31/43,6 | 2,58<br>86<br>31/43,6 | 4,41<br>129<br>31/38,4 | 5,8<br>171<br>31/38,4  | 8,2<br>261<br>31/41,5 | 10,7<br>339<br>31/41,5 | 14,8<br>479<br>31/42,3 | 20,6<br>679<br>31/43,1 | 29<br>959<br>31/43,3     |                                                                                     |     |
|                                       | 1 000 | 31,5 | –     | –                                        | 0,52<br>15,9<br>31/31,9  | 0,73<br>22,2<br>31/31,9 | 1,02<br>33,4<br>31/34,2 | 1,37<br>44,8<br>31/34,2 | 2,13<br>67<br>31/32,8 | 2,87<br>90<br>31/32,8 | 4,29<br>131<br>31/32   | 5,8<br>179<br>31/32    | 8,1<br>264<br>31/34,1 | 10,9<br>354<br>31/34,1 | 16,1<br>498<br>31/32,4 | 22,7<br>707<br>31/32,7 | 30,8<br>997<br>31/33,9   |                                                                                     |     |
|                                       | 1 000 | 31,5 | –     | 0,213<br>6,7<br>21/33,1                  | 0,457<br>12,8<br>21/29,3 | –                       | 0,86<br>26,4<br>21/31,9 | –                       | 1,74<br>53<br>21/31,8 | –                     | 3,88<br>109<br>21/29,3 | –                      | –                     | –                      | –                      | –                      | –                        |                                                                                     |     |
|                                       | 800   | 25   | –     | –                                        | –                        | –                       | –                       | –                       | –                     | –                     | –                      | –                      | 8,5<br>265<br>31/26,2 | 11,3<br>355<br>31/26,2 | 13,4<br>467<br>31/29,3 | 23,3<br>710<br>31/25,5 | 26,3<br>928<br>31/29,5   |                                                                                     |     |
|                                       | 800   | 25   | –     | 0,233<br>7,4<br>21/26,5                  | 0,49<br>14,1<br>21/24,1  | 0,64<br>18,5<br>21/24,1 | 1<br>29,8<br>21/25      | 1,22<br>36,5<br>21/25   | 1,92<br>60<br>21/26   | 2,35<br>73<br>21/26   | 4,13<br>119<br>21/24,1 | 5,1<br>145<br>21/24,1  | 7,3<br>211<br>21/24,3 | –                      | –                      | –                      | –                        |                                                                                     |     |
|                                       | 630   | 20   | –     | 0,247<br>7,5<br>21/19,9                  | 0,53<br>15,7<br>21/19,6  | 0,72<br>21,4<br>21/19,6 | 1,08<br>32,8<br>21/20   | 1,41<br>42,8<br>21/20   | 2,08<br>66<br>21/20,8 | 2,71<br>86<br>21/20,8 | 4,36<br>130<br>21/19,6 | 5,8<br>171<br>21/19,6  | 8,2<br>236<br>21/19   | 10,1<br>290<br>21/19   | 14,3<br>412<br>21/19   | 20,2<br>581<br>21/19   | 27,8<br>824<br>21/19,5   |                                                                                     |     |
| 28                                    | 1 400 | 50   | –     | –                                        | 0,443<br>16<br>31/53     | 0,62<br>22,4<br>31/53   | 0,97<br>33,5<br>31/50,4 | 1,31<br>45<br>31/50,4   | 1,97<br>67<br>31/49,8 | 2,65<br>90<br>31/49,8 | 3,65<br>132<br>31/53,1 | 4,97<br>180<br>31/53,1 | 7,7<br>265<br>31/50,2 | 10,3<br>355<br>31/50,2 | 13,9<br>481<br>31/50,8 | 20,9<br>710<br>31/49,7 | 26,8<br>964<br>31/52,7   |                                                                                     |     |
|                                       | 1 120 | 40   | –     | 0,173<br>6<br>21/40,4                    | 0,482<br>15,8<br>31/38,4 | 0,66<br>21,5<br>31/38,4 | 0,93<br>33,1<br>31/41,6 | 1,22<br>43,2<br>31/41,6 | 1,79<br>66<br>31/43,6 | 2,33<br>87<br>31/43,6 | 3,98<br>130<br>31/38,4 | 5,3<br>172<br>31/38,4  | 7,4<br>262<br>31/41,5 | 9,7<br>341<br>31/41,5  | 13,4<br>482<br>31/42,3 | 18,6<br>683<br>31/43,1 | 26,1<br>965<br>31/43,3   |                                                                                     |     |
|                                       | 900   | 31,5 | –     | –                                        | 0,471<br>16<br>31/31,9   | 0,66<br>22,4<br>31/31,9 | 0,92<br>33,5<br>31/34,2 | 1,24<br>45<br>31/34,2   | 1,93<br>67<br>31/32,8 | 2,59<br>90<br>31/32,8 | 3,88<br>132<br>31/32   | 5,3<br>180<br>31/32    | 7,3<br>265<br>31/34,1 | 9,8<br>355<br>31/34,1  | 14,5<br>500<br>31/32,4 | 20,5<br>710<br>31/32,7 | 27,8<br>1 000<br>31/33,9 |                                                                                     |     |
|                                       | 900   | 31,5 | –     | 0,192<br>6,8<br>21/33,1                  | 0,413<br>12,8<br>21/29,3 | –                       | 0,78<br>26,5<br>21/31,9 | –                       | 1,57<br>53<br>21/31,8 | –                     | 3,51<br>109<br>21/29,3 | –                      | –                     | –                      | –                      | –                      | –                        |                                                                                     |     |
|                                       | 710   | 25   | –     | –                                        | –                        | –                       | –                       | –                       | –                     | –                     | –                      | 265                    | 7,5<br>355<br>31/26,2 | 10,1<br>471<br>31/26,2 | 11,9<br>710<br>31/29,3 | 20,7<br>935<br>31/25,5 | 23,5<br>–<br>31/29,5     |                                                                                     |     |
|                                       | 710   | 25   | –     | 0,208<br>7,4<br>21/26,5                  | 0,437<br>14,2<br>21/24,1 | 0,57<br>18,6<br>21/24,1 | 0,89<br>30<br>21/25     | 1,09<br>36,7<br>21/25   | 1,72<br>60<br>21/26   | 2,1<br>73<br>21/26    | 3,68<br>119<br>21/24,1 | 4,52<br>146<br>21/24,1 | 6,5<br>212<br>21/24,3 | –                      | –                      | –                      | –                        |                                                                                     |     |
|                                       | 560   | 20   | –     | 0,221<br>7,5<br>21/19,9                  | 0,472<br>15,8<br>21/19,6 | 0,64<br>21,5<br>21/19,6 | 0,97<br>33,1<br>21/20   | 1,26<br>43,1<br>21/20   | 1,86<br>66<br>21/20,8 | 2,43<br>86<br>21/20,8 | 3,9<br>130<br>21/19,6  | 5,2<br>173<br>21/19,6  | 7,3<br>237<br>21/19   | 9<br>292<br>21/19      | 12,8<br>414<br>21/19   | 18,1<br>585<br>21/19   | 24,9<br>829<br>21/19,5   |                                                                                     |     |
| 25                                    | 1 250 | 50   | –     | –                                        | 0,395<br>16<br>31/53     | 0,55<br>22,4<br>31/53   | 0,87<br>33,5<br>31/50,4 | 1,17<br>45<br>31/50,4   | 1,76<br>67<br>31/49,8 | 2,36<br>90<br>31/49,8 | 3,25<br>132<br>31/53,1 | 4,44<br>180<br>31/53,1 | 6,9<br>265<br>31/50,2 | 9,2<br>355<br>31/50,2  | 12,5<br>484<br>31/50,8 | 18,7<br>710<br>31/49,7 | 24,1<br>970<br>31/52,7   |                                                                                     |     |
|                                       | 1 000 | 40   | –     | 0,156<br>6<br>21/40,4                    | 0,433<br>15,9<br>31/38,4 | 0,59<br>21,6<br>31/38,4 | 0,84<br>33,4<br>31/41,6 | 1,1<br>43,5<br>31/41,6  | 1,6<br>67<br>31/43,6  | 2,1<br>87<br>31/43,6  | 3,57<br>131<br>31/38,4 | 4,73<br>174<br>31/38,4 | 6,7<br>264<br>31/41,5 | 8,7<br>344<br>31/41,5  | 12<br>485<br>31/42,3   | 16,7<br>687<br>31/43,1 | 23,5<br>972<br>31/43,3   |                                                                                     |     |
|                                       | 800   | 31,5 | –     | –                                        | 0,42<br>16<br>31/31,9    | 0,59<br>22,4<br>31/31,9 | 0,82<br>33,5<br>31/34,2 | 1,1<br>45<br>31/34,2    | 1,71<br>67<br>31/32,8 | 2,3<br>90<br>31/32,8  | 3,46<br>132<br>31/32   | 4,71<br>180<br>31/32   | 6,5<br>265<br>31/34,1 | 8,7<br>355<br>31/34,1  | 12,9<br>500<br>31/32,4 | 18,2<br>710<br>31/32,7 | 24,7<br>1 000<br>31/33,9 |                                                                                     |     |
|                                       | 800   | 31,5 | –     | 0,172<br>6,8<br>21/33,1                  | 0,369<br>12,9<br>21/29,3 | –                       | 0,7<br>26,6<br>21/31,9  | –                       | 1,4<br>53<br>21/31,8  | –                     | 3,13<br>109<br>21/29,3 | –                      | –                     | –                      | –                      | –                      | –                        |                                                                                     |     |
|                                       | 630   | 25   | –     | –                                        | –                        | –                       | –                       | –                       | –                     | –                     | –                      | –                      | 6,7<br>265<br>31/26,2 | 8,9<br>355<br>31/26,2  | 10,7<br>474<br>31/29,3 | 18,4<br>710<br>31/25,5 | 21<br>942<br>31/29,5     |                                                                                     |     |
|                                       | 630   | 25   | –     | 0,186<br>7,5<br>21/26,5                  | 0,39<br>14,3<br>21/24,1  | 0,51<br>18,7<br>21/24,1 | 0,8<br>30,2<br>21/25    | 0,97<br>36,9<br>21/25   | 1,53<br>60<br>21/26   | 1,87<br>74<br>21/26   | 3,29<br>120<br>21/24,1 | 4,03<br>147<br>21/24,1 | 5,8<br>213<br>21/24,3 | –                      | –                      | –                      | –                        |                                                                                     |     |

For  $n_1 > 1\,400\text{ min}^{-1}$  or  $n_1 < 355\text{ min}^{-1}$  see ch. 3.4 and the table on page 36.

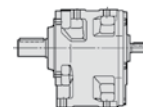
| $n_{N2}$   $n_1$<br>min <sup>-1</sup> |       |       | $i_N$ | Gear reducer size                        |                          |                          |                          |                          |                         |                       |                        |                        |                        |                        |                        |                        |  |                       |  |     |     |
|---------------------------------------|-------|-------|-------|------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------------------------------------------------------------------|-----------------------|--|-----|-----|
|                                       |       |       |       | $P_{N2}$ kW<br>$M_{N2}$ daN m<br>... / i |                          |                          |                          |                          |                         |                       |                        |                        |                        |                        |                        |                        |                                                                                     |                       |  |     |     |
|                                       |       |       |       | 32                                       | 40                       | 50                       | 51                       | 63                       | 64                      | 80                    | 81                     | 100                    | 101                    | 125                    | 126                    | 140                    |                                                                                     |                       |  | 160 | 180 |
| 22,4                                  | 1 400 | 63    | –     | –                                        | 0,369<br>16<br>31/63,6   | 0,5<br>21,8<br>31/63,6   | 0,8<br>33,5<br>31/61,3   | 1,04<br>43,7<br>31/61,3  | 1,48<br>67<br>31/66,3   | 1,94<br>88<br>31/66,3 | 3,04<br>132<br>31/63,8 | 4,02<br>175<br>31/63,8 | 6,3<br>265<br>31/61,2  | 8,3<br>345<br>31/61,2  | 11,4<br>487<br>31/62,3 | 15,4<br>690<br>31/65,6 | 21,7<br>975<br>31/65,9                                                              |                       |  |     |     |
|                                       | 1 120 | 50    | –     | –                                        | 0,354<br>16<br>31/53     | 0,496<br>22,4<br>31/53   | 0,78<br>33,5<br>31/50,4  | 1,05<br>45<br>31/50,4    | 1,58<br>67<br>31/49,8   | 2,12<br>90<br>31/49,8 | 2,92<br>132<br>31/53,1 | 3,98<br>180<br>31/53,1 | 6,2<br>265<br>31/50,2  | 8,3<br>355<br>31/50,2  | 11,3<br>487<br>31/50,8 | 16,7<br>710<br>31/49,7 | 21,7<br>975<br>31/52,7                                                              |                       |  |     |     |
|                                       | 900   | 40    | –     | 0,141<br>6<br>21/40,4                    | 0,393<br>16<br>31/38,4   | 0,54<br>21,8<br>31/38,4  | 0,76<br>33,5<br>31/41,6  | 0,99<br>43,7<br>31/41,6  | 1,45<br>67<br>31/43,6   | 1,89<br>88<br>31/43,6 | 3,23<br>132<br>31/38,4 | 4,29<br>175<br>31/38,4 | 6<br>265<br>31/41,5    | 7,8<br>345<br>31/41,5  | 10,9<br>487<br>31/42,3 | 15,1<br>690<br>31/43,1 | 21,2<br>975<br>31/43,3                                                              |                       |  |     |     |
|                                       | 710   | 31,5  | –     | –                                        | 0,372<br>16<br>31/31,9   | 0,52<br>22,4<br>31/31,9  | 0,73<br>33,5<br>31/34,2  | 0,98<br>45<br>31/34,2    | 1,52<br>67<br>31/32,8   | 2,04<br>90<br>31/32,8 | 3,07<br>132<br>31/32   | 4,18<br>180<br>31/32   | 5,8<br>265<br>31/34,1  | 7,7<br>355<br>31/34,1  | 11,5<br>500<br>31/32,4 | 16,2<br>710<br>31/32,7 | 21,9<br>1 000<br>31/33,9                                                            |                       |  |     |     |
|                                       | 710   | 31,5  | –     | 0,154<br>6,8<br>21/33,1                  | 0,329<br>13<br>21/29,3   | –                        | 0,62<br>26,7<br>21/31,9  | –                        | 1,25<br>54<br>21/31,8   | –                     | 2,79<br>110<br>21/29,3 | –                      | –                      | –                      | –                      | –                      | –                                                                                   |                       |  |     |     |
|                                       | 560   | 25    | –     | –                                        | –                        | –                        | –                        | –                        | –                       | –                     | –                      | –                      | 5,9<br>265<br>31/26,2  | 7,9<br>355<br>31/26,2  | 9,6<br>478<br>31/29,3  | 16,3<br>710<br>31/25,5 | 18,8<br>948<br>31/29,5                                                              |                       |  |     |     |
|                                       | 560   | 25    | –     | –                                        | 0,166<br>7,5<br>21/26,5  | 0,349<br>14,3<br>21/24,1 | 0,458<br>18,8<br>21/24,1 | 0,71<br>30,4<br>21/25    | 0,87<br>37,1<br>21/25   | 1,37<br>61<br>21/26   | 1,67<br>74<br>21/26    | 2,94<br>121<br>21/24,1 | 3,61<br>148<br>21/24,1 | 5,2<br>214<br>21/24,3  | –                      | –                      | –                                                                                   |                       |  |     |     |
| 18                                    | 1 400 | 80    | –     | –                                        | 0,272<br>14,5<br>31/78,2 | 0,356<br>19<br>31/78,2   | 0,59<br>30,7<br>31/76,7  | 0,72<br>37,5<br>31/76,7  | 1,09<br>62<br>31/82,7   | 1,33<br>75<br>31/82,7 | 2,28<br>122<br>31/78,3 | 2,81<br>150<br>31/78,3 | 4,66<br>243<br>31/76,5 | 5,7<br>300<br>31/76,5  | 8,1<br>425<br>31/76,5  | 12,9<br>690<br>31/78,5 | 18,1<br>975<br>31/78,9                                                              |                       |  |     |     |
|                                       | 1 120 | 63    | –     | –                                        | 0,295<br>16<br>31/63,6   | 0,402<br>21,8<br>31/63,6 | 0,64<br>33,5<br>31/61,3  | 0,84<br>43,7<br>31/61,3  | 1,19<br>67<br>31/66,3   | 1,55<br>88<br>31/66,3 | 2,43<br>132<br>31/63,8 | 3,22<br>175<br>31/63,8 | 5,1<br>265<br>31/61,2  | 6,6<br>345<br>31/61,2  | 9,2<br>487<br>31/62,3  | 12,3<br>690<br>31/65,6 | 17,3<br>975<br>31/65,9                                                              |                       |  |     |     |
|                                       | 900   | 50    | –     | –                                        | 0,285<br>16<br>31/53     | 0,398<br>22,4<br>31/53   | 0,63<br>33,5<br>31/50,4  | 0,84<br>45,0<br>31/50,4  | 1,27<br>67<br>31/49,8   | 1,7<br>90<br>31/49,8  | 2,34<br>132<br>31/53,1 | 3,2<br>180<br>31/53,1  | 4,97<br>265<br>31/50,2 | 6,7<br>355<br>31/50,2  | 9<br>487<br>31/50,8    | 13,5<br>710<br>31/49,7 | 17,4<br>975<br>31/52,7                                                              |                       |  |     |     |
|                                       | 710   | 40    | –     | 0,112<br>6,1<br>21/40,4                  | 0,31<br>16<br>31/38,4    | 0,423<br>21,8<br>31/38,4 | 0,6<br>33,5<br>31/41,6   | 0,78<br>43,7<br>31/41,6  | 1,14<br>67<br>31/43,6   | 1,49<br>88<br>31/43,6 | 2,55<br>132<br>31/38,4 | 3,39<br>175<br>31/38,4 | 4,75<br>265<br>31/41,5 | 6,2<br>345<br>31/41,5  | 8,6<br>487<br>31/42,3  | 11,9<br>690<br>31/43,1 | 16,7<br>975<br>31/43,3                                                              |                       |  |     |     |
|                                       | 560   | 31,5  | –     | –                                        | 0,294<br>16<br>31/31,9   | 0,411<br>22,4<br>31/31,9 | 0,58<br>33,5<br>31/34,2  | 0,77<br>45<br>31/34,2    | 1,2<br>67<br>31/32,8    | 1,61<br>90<br>31/32,8 | 2,42<br>132<br>31/32   | 3,3<br>180<br>31/32    | 4,56<br>265<br>31/34,1 | 6,1<br>355<br>31/34,1  | 9<br>500<br>31/32,4    | 12,7<br>710<br>31/32,7 | 17,3<br>1 000<br>31/33,9                                                            |                       |  |     |     |
|                                       | 560   | 31,5  | –     | –                                        | 0,122<br>6,9<br>21/33,1  | 0,262<br>13,1<br>21/29,3 | –                        | 0,495<br>27<br>21/31,9   | –                       | 1<br>54<br>21/31,8    | –                      | 2,22<br>111<br>21/29,3 | –                      | –                      | –                      | –                      | –                                                                                   |                       |  |     |     |
|                                       | 14    | 1 400 | 100   | –                                        | –                        | 0,23<br>16<br>31/102     | 0,313<br>21,8<br>31/102  | 0,51<br>33,5<br>31/96,4  | 0,66<br>43,7<br>31/96,4 | 0,94<br>67<br>31/104  | 1,23<br>88<br>31/104   | 1,90<br>132<br>31/102  | 2,52<br>175<br>31/102  | 4,03<br>265<br>31/96,4 | 5,2<br>345<br>31/96,4  | 7,3<br>487<br>31/98,2  | 10,1<br>690<br>31/100                                                               | 13,6<br>937<br>31/101 |  |     |     |
| 1 120                                 |       | 80    | –     | –                                        | 0,218<br>14,5<br>31/78,2 | 0,285<br>19<br>31/78,2   | 0,47<br>30,7<br>31/76,7  | 0,57<br>37,5<br>31/76,7  | 0,87<br>62<br>31/82,7   | 1,06<br>75<br>31/82,7 | 1,83<br>122<br>31/78,3 | 2,25<br>150<br>31/78,3 | 3,73<br>243<br>31/76,5 | 4,60<br>300<br>31/76,5 | 6,5<br>425<br>31/76,5  | 10,3<br>690<br>31/78,5 | 14,5<br>975<br>31/78,9                                                              |                       |  |     |     |
| 900                                   |       | 63    | –     | –                                        | 0,237<br>16<br>31/63,6   | 0,323<br>21,8<br>31/63,6 | 0,51<br>33,5<br>31/61,3  | 0,67<br>43,7<br>31/61,3  | 0,95<br>67<br>31/66,3   | 1,24<br>88<br>31/66,3 | 1,95<br>132<br>31/63,8 | 2,59<br>175<br>31/63,8 | 4,08<br>265<br>31/61,2 | 5,3<br>345<br>31/61,2  | 7,4<br>487<br>31/62,3  | 9,9<br>690<br>31/65,6  | 13,9<br>975<br>31/65,9                                                              |                       |  |     |     |
| 710                                   |       | 50    | –     | –                                        | 0,224<br>16<br>31/53     | 0,314<br>22,4<br>31/53   | 0,494<br>33,5<br>31/50,4 | 0,66<br>45<br>31/50,4    | 1<br>67<br>31/49,8      | 1,34<br>90<br>31/49,8 | 1,85<br>132<br>31/53,1 | 2,52<br>180<br>31/53,1 | 3,92<br>265<br>31/50,2 | 5,3<br>355<br>31/50,2  | 7,1<br>487<br>31/50,8  | 10,6<br>710<br>31/49,7 | 13,7<br>975<br>31/52,7                                                              |                       |  |     |     |
| 560                                   |       | 40    | –     | –                                        | 0,089<br>6,2<br>21/40,4  | 0,245<br>16<br>31/38,4   | 0,333<br>21,8<br>31/38,4 | 0,472<br>33,5<br>31/41,6 | 0,62<br>43,7<br>31/41,6 | 0,9<br>67<br>31/43,6  | 1,18<br>88<br>31/43,6  | 2,02<br>132<br>31/38,4 | 2,67<br>175<br>31/38,4 | 3,75<br>265<br>31/41,5 | 4,88<br>345<br>31/41,5 | 6,8<br>487<br>31/42,3  | 9,4<br>690<br>31/43,1                                                               |                       |  |     |     |
| 560                                   |       | 40    | –     | –                                        | –                        | –                        | –                        | –                        | –                       | –                     | –                      | –                      | –                      | –                      | –                      | –                      | –                                                                                   |                       |  |     |     |
| 11,2                                  |       | 1 400 | 125   | –                                        | –                        | 0,17<br>14,5<br>31/125   | 0,222<br>19<br>31/125    | 0,374<br>30,7<br>31/120  | 0,456<br>37,5<br>31/120 | 0,74<br>67<br>31/133  | 0,96<br>88<br>31/133   | 1,55<br>132<br>31/125  | 2,06<br>175<br>31/125  | 3,32<br>265<br>31/117  | 4,32<br>345<br>31/117  | 6<br>487<br>31/119     | 7,4<br>600<br>31/119                                                                | 10,1<br>850<br>31/123 |  |     |     |
|                                       | 1 120 | 100   | –     | –                                        | 0,184<br>16<br>31/102    | 0,251<br>21,8<br>31/102  | 0,408<br>33,5<br>31/96,4 | 0,53<br>43,7<br>31/96,4  | 0,75<br>67<br>31/104    | 0,99<br>88<br>31/104  | 1,52<br>132<br>31/102  | 2,01<br>175<br>31/102  | 3,23<br>265<br>31/96,4 | 4,2<br>345<br>31/96,4  | 5,8<br>487<br>31/98,2  | 8,1<br>690<br>31/100   | 11<br>945<br>31/101                                                                 |                       |  |     |     |
|                                       | 900   | 80    | –     | –                                        | 0,175<br>14,5<br>31/78,2 | 0,229<br>19<br>31/78,2   | 0,377<br>30,7<br>31/76,7 | 0,461<br>37,5<br>31/76,7 | 0,7<br>62<br>31/82,7    | 0,85<br>75<br>31/82,7 | 1,47<br>122<br>31/78,3 | 1,81<br>150<br>31/78,3 | 3<br>243<br>31/76,5    | 3,7<br>300<br>31/76,5  | 5,2<br>425<br>31/76,5  | 8,3<br>690<br>31/78,5  | 11,6<br>975<br>31/78,9                                                              |                       |  |     |     |
|                                       | 710   | 63    | –     | –                                        | 0,187<br>16<br>31/63,6   | 0,255<br>21,8<br>31/63,6 | 0,406<br>33,5<br>31/61,3 | 0,53<br>43,7<br>31/61,3  | 0,75<br>67<br>31/66,3   | 0,98<br>88<br>31/66,3 | 1,54<br>132<br>31/63,8 | 2,04<br>175<br>31/63,8 | 3,22<br>265<br>31/61,2 | 4,19<br>345<br>31/61,2 | 5,8<br>487<br>31/62,3  | 7,8<br>690<br>31/65,6  | 11<br>975<br>31/65,9                                                                |                       |  |     |     |
|                                       | 710   | 63    | –     | –                                        | –                        | –                        | –                        | –                        | –                       | –                     | –                      | –                      | –                      | –                      | –                      | –                      | –                                                                                   |                       |  |     |     |

For  $n_1 > 1\,400\text{ min}^{-1}$  or  $n_1 < 355\text{ min}^{-1}$  see ch. 3.4 and the table on page 36.

| $n_{N2}$ | $n_1$ | $i_N$ | Gear reducer size                        |    |                          |                          |                          |                          |                        |                       |                        |                        |                        |                        |                        |                       |                        |  |
|----------|-------|-------|------------------------------------------|----|--------------------------|--------------------------|--------------------------|--------------------------|------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|-------------------------------------------------------------------------------------|
|          |       |       | $P_{N2}$ kW<br>$M_{N2}$ daN m<br>... / i |    |                          |                          |                          |                          |                        |                       |                        |                        |                        |                        |                        |                       |                        |                                                                                     |
|          |       |       | 32                                       | 40 | 50                       | 51                       | 63                       | 64                       | 80                     | 81                    | 100                    | 101                    | 125                    | 126                    | 140                    | 160                   | 180                    |                                                                                     |
| 11,2     | 560   | 50    | –                                        | –  | 0,177<br>16<br>31/53     | 0,248<br>22,4<br>31/53   | 0,39<br>33,5<br>31/50,4  | 0,52<br>45<br>31/50,4    | 0,79<br>67<br>31/49,8  | 1,06<br>90<br>31/49,8 | 1,46<br>132<br>31/53,1 | 1,99<br>180<br>31/53,1 | 3,09<br>265<br>31/50,2 | 4,14<br>355<br>31/50,2 | 5,6<br>487<br>31/50,8  | 8,4<br>710<br>31/49,7 | 10,8<br>975<br>31/52,7 |                                                                                     |
| 9        | 1 400 | 160   | –                                        | –  | 0,127<br>13,2<br>31/152  | –                        | 0,259<br>27,2<br>31/154  | –                        | 0,54<br>62<br>31/166   | 0,66<br>75<br>31/166  | 1,17<br>122<br>31/153  | 1,44<br>150<br>31/153  | 2,43<br>243<br>31/146  | 3<br>300<br>31/146     | 4,25<br>425<br>31/146  | –                     | –                      |                                                                                     |
|          | 1 120 | 125   | –                                        | –  | 0,136<br>14,5<br>31/125  | 0,178<br>19<br>31/125    | 0,299<br>30,7<br>31/120  | 0,365<br>37,5<br>31/120  | 0,59<br>67<br>31/133   | 0,77<br>88<br>31/133  | 1,24<br>132<br>31/125  | 1,65<br>175<br>31/125  | 2,65<br>265<br>31/117  | 3,45<br>345<br>31/117  | 4,78<br>487<br>31/119  | 5,9<br>600<br>31/119  | 8,1<br>850<br>31/123   |                                                                                     |
|          | 900   | 100   | –                                        | –  | 0,148<br>16<br>31/102    | 0,201<br>21,8<br>31/102  | 0,328<br>33,5<br>31/96,4 | 0,427<br>43,7<br>31/96,4 | 0,61<br>67<br>31/104   | 0,79<br>88<br>31/104  | 1,22<br>132<br>31/102  | 1,62<br>175<br>31/102  | 2,59<br>265<br>31/96,4 | 3,37<br>345<br>31/96,4 | 4,67<br>487<br>31/98,2 | 6,5<br>690<br>31/100  | 8,9<br>953<br>31/101   |                                                                                     |
|          | 710   | 80    | –                                        | –  | 0,138<br>14,5<br>31/78,2 | 0,181<br>19<br>31/78,2   | 0,298<br>30,7<br>31/76,7 | 0,364<br>37,5<br>31/76,7 | 0,55<br>62<br>31/82,7  | 0,67<br>75<br>31/82,7 | 1,16<br>122<br>31/78,3 | 1,42<br>150<br>31/78,3 | 2,36<br>243<br>31/76,5 | 2,92<br>300<br>31/76,5 | 4,13<br>425<br>31/76,5 | 6,5<br>690<br>31/78,5 | 9,2<br>975<br>31/78,9  |                                                                                     |
|          | 560   | 63    | –                                        | –  | 0,147<br>16<br>31/63,6   | 0,201<br>21,8<br>31/63,6 | 0,32<br>33,5<br>31/61,3  | 0,418<br>43,7<br>31/61,3 | 0,59<br>67<br>31/66,3  | 0,77<br>88<br>31/66,3 | 1,21<br>132<br>31/63,8 | 1,61<br>175<br>31/63,8 | 2,54<br>265<br>31/61,2 | 3,31<br>345<br>31/61,2 | 4,58<br>487<br>31/62,3 | 6,2<br>690<br>31/65,6 | 8,7<br>975<br>31/65,9  |                                                                                     |
| 7,1      | 1 400 | 200   | –                                        | –  | –                        | –                        | –                        | –                        | 0,394<br>55<br>31/203  | –                     | 0,88<br>112<br>31/186  | –                      | 1,71<br>218<br>31/187  | –                      | –                      | –                     | –                      |                                                                                     |
|          | 1 120 | 160   | –                                        | –  | 0,102<br>13,2<br>31/152  | –                        | 0,207<br>27,2<br>31/154  | –                        | 0,434<br>62<br>31/166  | 0,53<br>75<br>31/166  | 0,93<br>122<br>31/153  | 1,15<br>150<br>31/153  | 1,95<br>243<br>31/146  | 2,4<br>300<br>31/146   | 3,4<br>425<br>31/146   | –                     | –                      |                                                                                     |
|          | 900   | 125   | –                                        | –  | 0,109<br>14,5<br>31/125  | 0,143<br>19<br>31/125    | 0,24<br>30,7<br>31/120   | 0,293<br>37,5<br>31/120  | 0,475<br>67<br>31/133  | 0,62<br>88<br>31/133  | 1<br>132<br>31/125     | 1,32<br>175<br>31/125  | 2,13<br>265<br>31/117  | 2,78<br>345<br>31/117  | 3,84<br>487<br>31/119  | 4,73<br>600<br>31/119 | 6,5<br>850<br>31/123   |                                                                                     |
|          | 710   | 100   | –                                        | –  | 0,117<br>16<br>31/102    | 0,159<br>21,8<br>31/102  | 0,258<br>33,5<br>31/96,4 | 0,337<br>43,7<br>31/96,4 | 0,478<br>67<br>31/104  | 0,62<br>88<br>31/104  | 0,96<br>132<br>31/102  | 1,28<br>175<br>31/102  | 2,04<br>265<br>31/96,4 | 2,66<br>345<br>31/96,4 | 3,69<br>487<br>31/98,2 | 5,1<br>690<br>31/100  | 7,1<br>962<br>31/101   |                                                                                     |
|          | 560   | 80    | –                                        | –  | 0,109<br>14,5<br>31/78,2 | 0,143<br>19<br>31/78,2   | 0,235<br>30,7<br>31/76,7 | 0,287<br>37,5<br>31/76,7 | 0,436<br>62<br>31/82,7 | 0,53<br>75<br>31/82,7 | 0,91<br>122<br>31/78,3 | 1,12<br>150<br>31/78,3 | 1,86<br>243<br>31/76,5 | 2,3<br>300<br>31/76,5  | 3,26<br>425<br>31/76,5 | 5,2<br>690<br>31/78,5 | 7,2<br>975<br>31/78,9  |                                                                                     |
| 5,6      | 1 120 | 200   | –                                        | –  | –                        | –                        | –                        | –                        | 0,315<br>55<br>31/203  | –                     | 0,71<br>112<br>31/186  | –                      | 1,37<br>218<br>31/187  | –                      | –                      | –                     | –                      |                                                                                     |
|          | 900   | 160   | –                                        | –  | 0,082<br>13,2<br>31/152  | –                        | 0,167<br>27,2<br>31/154  | –                        | 0,349<br>62<br>31/166  | 0,426<br>75<br>31/166 | 0,75<br>122<br>31/153  | 0,92<br>150<br>31/153  | 1,56<br>243<br>31/146  | 1,93<br>300<br>31/146  | 2,74<br>425<br>31/146  | –                     | –                      |                                                                                     |
|          | 710   | 125   | –                                        | –  | 0,086<br>14,5<br>31/125  | 0,113<br>19<br>31/125    | 0,189<br>30,7<br>31/120  | 0,231<br>37,5<br>31/120  | 0,374<br>67<br>31/133  | 0,489<br>88<br>31/133 | 0,79<br>132<br>31/125  | 1,04<br>175<br>31/125  | 1,68<br>265<br>31/117  | 2,19<br>345<br>31/117  | 3,03<br>487<br>31/119  | 3,73<br>600<br>31/119 | 5,1<br>850<br>31/123   |                                                                                     |
|          | 560   | 100   | –                                        | –  | 0,092<br>16<br>31/102    | 0,125<br>21,8<br>31/102  | 0,204<br>33,5<br>31/96,4 | 0,266<br>43,7<br>31/96,4 | 0,377<br>67<br>31/104  | 0,493<br>88<br>31/104 | 0,76<br>132<br>31/102  | 1,01<br>175<br>31/102  | 1,61<br>265<br>31/96,4 | 2,1<br>345<br>31/96,4  | 2,91<br>487<br>31/98,2 | 4,03<br>690<br>31/100 | 5,6<br>971<br>31/101   |                                                                                     |

For  $n_1 > 1\,400\text{ min}^{-1}$  or  $n_1 < 355\text{ min}^{-1}$  see ch. 3.4 and the table on page 36.

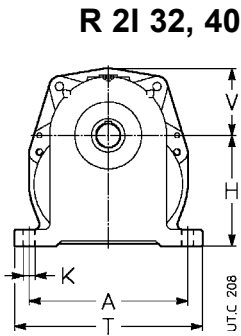
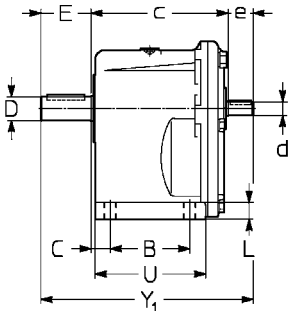
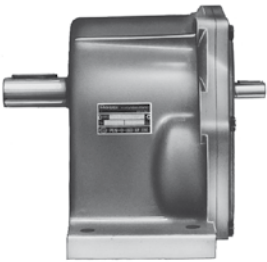
Summary of transmission ratios  $i$ , torques  $M_{N2}$  [daN m] valid for  $n_1 \leq 90 \text{ min}^{-1}$



| Train<br>of gears |      | Gear reducer size |              |                   |              |                   |              |                   |              |                   |              |                   |              |                   |              |                   |              |                   |     |      |     |      |     |      |     |      |      |      |      |      |      |
|-------------------|------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|-----|------|-----|------|-----|------|-----|------|------|------|------|------|------|
|                   |      | 32                | 40           | 50                | 51           | 63                | 64           | 80                | 81           | 100               | 101          | 125               | 126          | 140               | 160          | 180               |              |                   |     |      |     |      |     |      |     |      |      |      |      |      |      |
|                   |      | $i_N$             | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m | $i$<br>daN m | $M_{N2}$<br>daN m |     |      |     |      |     |      |     |      |      |      |      |      |      |
| 2I                | 6,3  | 6,33              | 3,75         | 6,08              | 6            | 6,52              | 12,5         | 6,52              | 16           | 6,36              | 25           | 6,36              | 30           | 6,1               | 50           | 6,1               | 60           | 6,5               | 106 | 6,5  | 125 | 6,35 | 200 | 6,35 | 236 | —    | 6,34 | 519  | —    |      |      |
|                   | 8    | 8,12              | 3,75         | 7,61              | 7,5          | 8,13              | 16           | 8,13              | 22,4         | 8,05              | 33,5         | 8,05              | 37,5         | 7,64              | 67           | 7,64              | 75           | 8,11              | 132 | 8,11 | 170 | 8,03 | 265 | 8,03 | 300 | —    | 8,12 | 675  | 8,43 | 752  |      |
|                   | 10   | 10,8              | 3,75         | 9,76              | 7,5          | 10,4              | 16           | 10,4              | 22,4         | 10,5              | 33,5         | 10,5              | 45           | 9,79              | 67           | 9,79              | 90           | 10,4              | 132 | 10,4 | 180 | 10,4 | 265 | 10,4 | 345 | 9,92 | 400  | 10,7 | 690  | 10,8 | 900  |
|                   | 12,5 | 13,5              | 3,45         | 13                | 7,5          | 12,5              | 16           | 12,5              | 21,8         | 12,7              | 33,5         | 12,7              | 43,7         | 13                | 67           | 13                | 88           | 12,5              | 132 | 12,5 | 175 | 12,7 | 265 | 12,7 | 345 | 12,9 | 462  | 12,1 | 675  | 12,5 | 752  |
|                   | 16   | —                 | —            | 16,2              | 6,9          | 16,3              | 16           | 16,3              | 21,4         | 16,4              | 33,5         | 16,4              | 42,5         | 15,7              | 67           | 15,7              | 86           | 16,3              | 132 | 16,3 | 180 | 15,2 | 265 | 15,2 | 345 | 15,5 | 462  | 15,9 | 690  | 16   | 900  |
|                   | 20   | —                 | —            | 19,9              | 7,5          | 19,6              | 16           | 19,6              | 21,8         | 20                | 33,5         | 20                | 43,7         | 20,8              | 67           | 20,8              | 88           | 19,6              | 132 | 19,6 | 175 | 19   | 243 | 19   | 300 | 19   | 425  | 19   | 600  | 19,5 | 850  |
|                   | 25   | —                 | —            | 26,5              | 7,5          | 24,1              | 14,5         | 24,1              | 19           | 25                | 30,7         | 25                | 37,5         | 26                | 62           | 26                | 75           | 24,1              | 122 | 24,1 | 150 | 24,3 | 218 | —    | —   | —    | —    | —    | —    | —    |      |
|                   | 31,5 | —                 | —            | 33,1              | 6,9          | 29,3              | 13,2         | —                 | —            | 31,9              | 27,2         | —                 | —            | 31,8              | 55           | —                 | —            | 29,3              | 112 | —    | —   | —    | —   | —    | —   | —    | —    | —    | —    | —    | —    |
|                   | 40   | —                 | —            | 40,4              | 6,2          | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —   | —    | —   | —    | —   | —    | —   | —    | —    | —    | —    | —    | —    |
| 3I                | 25   | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —   | —    | —   | 26,2 | 265 | 26,2 | 355 | 29,3 | 498  | 25,5 | 710  | 29,5 | 975  |
|                   | 31,5 | —                 | —            | —                 | —            | 31,9              | 16           | 31,9              | 22,4         | 34,2              | 33,5         | 34,2              | 45           | 32,8              | 67           | 32,8              | 90           | 32                | 132 | 32   | 180 | 34,1 | 265 | 34,1 | 355 | 32,4 | 500  | 32,7 | 710  | 33,9 | 1000 |
|                   | 40   | —                 | —            | —                 | —            | 38,4              | 16           | 38,4              | 21,8         | 41,6              | 33,5         | 41,6              | 43,7         | 43,6              | 67           | 43,6              | 88           | 38,4              | 132 | 38,4 | 175 | 41,5 | 265 | 41,5 | 345 | 42,3 | 487  | 43,1 | 690  | 43,3 | 975  |
|                   | 50   | —                 | —            | —                 | —            | 53                | 16           | 53                | 22,4         | 50,4              | 33,5         | 50,4              | 45           | 49,8              | 67           | 49,8              | 90           | 53,1              | 132 | 53,1 | 180 | 50,2 | 265 | 50,2 | 355 | 50,8 | 487  | 49,7 | 710  | 52,7 | 975  |
|                   | 63   | —                 | —            | —                 | —            | 63,6              | 16           | 63,6              | 21,8         | 61,3              | 33,5         | 61,3              | 43,7         | 66,3              | 67           | 66,3              | 88           | 63,8              | 132 | 63,8 | 175 | 61,2 | 265 | 61,2 | 345 | 62,3 | 487  | 65,6 | 690  | 65,9 | 975  |
|                   | 80   | —                 | —            | —                 | —            | 78,2              | 14,5         | 78,2              | 19           | 76,7              | 30,7         | 76,7              | 37,5         | 82,7              | 62           | 82,7              | 75           | 78,3              | 122 | 78,3 | 150 | 76,5 | 243 | 76,5 | 300 | 76,5 | 425  | 78,5 | 690  | 78,9 | 975  |
|                   | 100  | —                 | —            | —                 | —            | 102               | 16           | 102               | 21,8         | 96,4              | 33,5         | 96,4              | 43,7         | 104               | 67           | 104               | 88           | 102               | 132 | 102  | 175 | 96,4 | 265 | 96,4 | 345 | 98,2 | 487  | 100  | 690  | 101  | 975  |
|                   | 125  | —                 | —            | —                 | —            | 125               | 14,5         | 125               | 19           | 120               | 30,7         | 120               | 37,5         | 133               | 67           | 133               | 88           | 125               | 132 | 125  | 175 | 117  | 265 | 117  | 345 | 119  | 487  | 119  | 600  | 123  | 850  |
|                   | 160  | —                 | —            | —                 | —            | 152               | 13,2         | —                 | —            | 154               | 27,2         | —                 | —            | 166               | 62           | 166               | 75           | 153               | 122 | 153  | 150 | 146  | 243 | 146  | 300 | 146  | 425  | —    | —    | —    | —    |
| 200               | —    | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | —            | —                 | 203          | 55                | —            | —                 | 186          | 112               | —   | —    | 187 | 218  | —   | —    | —   | —    | —    | —    | —    | —    |      |

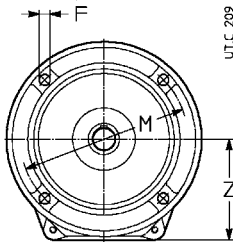
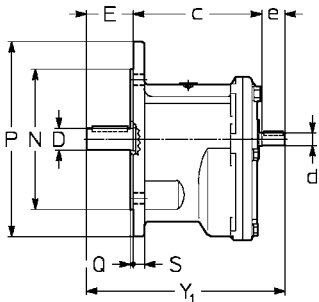
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Designs, dimensions, mounting positions and lubricant quantities 3.6



Standard design  
Mounting position B3, B6, B7, B8, V5, V6

PC1A



Standard design  
Mounting position B5, V1, V3

FC1A

| Size | A   | B  | C  | c                    | D<br>Ø | E  | d  | e  | Y <sub>1</sub> | F<br>Ø | H<br>h11 | K<br>Ø | L  | M<br>Ø | N<br>Ø<br>h6 | P<br>Ø | Q   | S  | T   | U  | V                | Z  | Mass<br>kg |
|------|-----|----|----|----------------------|--------|----|----|----|----------------|--------|----------|--------|----|--------|--------------|--------|-----|----|-----|----|------------------|----|------------|
| 32   | 115 | 53 | 20 | 103-93 <sup>1)</sup> | 16     | 30 | 11 | 20 | 153            | 9,5    | 75       | 9,5    | 10 | 115    | 95           | 140    | 3   | 10 | 139 | 77 | 48 <sup>2)</sup> | 73 | 4          |
| 40   | 132 | 63 | 19 | 122                  | 19     | 40 | 11 | 23 | 185            | 9,5    | 90       | 9,5    | 12 | 130    | 110          | 160    | 3,5 | 10 | 156 | 92 | 56               | 87 | 7          |

1) Dimensions of shaft end shoulder and flange surface respectively.  
2) Square input flange  $\square$  105: consult us if need be.

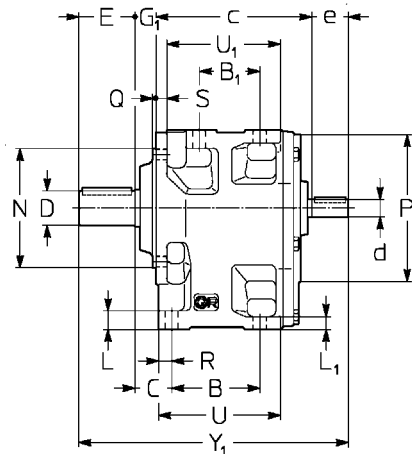
Mounting positions and grease quantities [kg]

|        |    |    |    |    |    |    | Size     | B3, B6<br>B7, B8  | V5, V6                 |
|--------|----|----|----|----|----|----|----------|-------------------|------------------------|
|        | B3 | B6 | B7 | B8 | V5 | V6 |          |                   |                        |
| Design |    |    |    |    |    |    | 32<br>40 | 0,14<br>0,26      | 0,25<br>0,47           |
|        | B5 |    |    |    | V1 | V3 | 32<br>40 | B5<br>0,1<br>0,19 | V1, V3<br>0,18<br>0,35 |

U.T.C 216

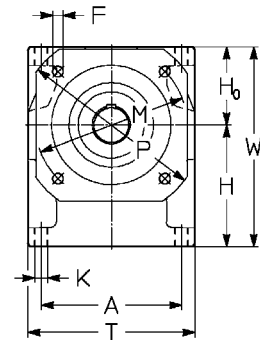


# Designs, dimensions, mounting positions and lubricant quantities 3.6



R 2l, 3l 50 ... 180

UT.C 626



UC2A

Standard **design**

Mounting position B3, B6, B7, B8, V5, V6

| Size       | A   | B              | C    | c                 | D        | E        | d                     | Y <sub>1</sub> | d                   | Y <sub>1</sub> | d                   | Y <sub>1</sub>  | d                    | Y <sub>1</sub> | F    | G <sub>1</sub> | H                 | H <sub>0</sub>    | K    | L   | L <sub>1</sub> | M        | N              | P                            | P <sub>1</sub> | R    | S   | T   | U   | U <sub>1</sub> | W <sub>1</sub> | Mass |
|------------|-----|----------------|------|-------------------|----------|----------|-----------------------|----------------|---------------------|----------------|---------------------|-----------------|----------------------|----------------|------|----------------|-------------------|-------------------|------|-----|----------------|----------|----------------|------------------------------|----------------|------|-----|-----|-----|----------------|----------------|------|
|            |     | B <sub>1</sub> |      |                   |          |          | e                     | R21            | e                   | R31            | e                   |                 |                      |                |      |                | h <sub>11</sub>   | h <sub>11</sub>   | Ø    |     |                | Ø        | h <sub>6</sub> | Q <sub>42</sub> <sup>0</sup> |                |      |     |     |     |                |                |      |
|            |     |                |      |                   |          |          | i <sub>N</sub> ≤ 12,5 |                | i <sub>N</sub> ≥ 16 |                | i <sub>N</sub> ≤ 80 |                 | i <sub>N</sub> ≥ 100 |                |      |                |                   |                   |      |     |                |          |                |                              |                |      |     |     |     |                |                | kg   |
| 50<br>51   | 124 | 76<br>52       | 30,5 | 138               | 24<br>28 | 50<br>42 | 14<br>30              | 234<br>226     | 14<br>30            | 234<br>226     | 11<br>23            | 227<br>219      | 11<br>23             | 227<br>219     | 9,5  | 16             | 106               | 71                | 11,5 | 17  | 12             | 130      | 110            | 160<br>3,5                   | 140            | 13,5 | 10  | 148 | 110 | 100            | 177            | 12   |
| 63<br>64   | 153 | 96<br>66       | 36,5 | 168               | 32<br>38 | 58<br>40 | 19<br>40              | 285<br>275     | 16<br>30            | 275<br>275     | 14<br>30            | 275<br>275      | 14<br>30             | 275<br>275     | 11,5 | 19             | 132               | 85                | 14   | 20  | 14             | 165      | 130            | 200<br>3,5                   | 160            | 16   | 12  | 182 | 136 | 124            | 217            | 20   |
| 80<br>81   | 192 | 123<br>87      | 43   | 208               | 38<br>48 | 80<br>24 | 24<br>50              | 360<br>350     | 19<br>40            | 350<br>350     | 19<br>40            | 350<br>16<br>30 | 340                  | 14             | 22   | 160            | 106               | 16                | 24   | 17  | 215            | 180      | 250<br>4       | 200                          | 19             | 14   | 226 | 171 | 157 | 266            | 35             |      |
| 100<br>101 | 240 | 160<br>119     | 51,5 | 253               | 48<br>55 | 82<br>60 | 28<br>50              | 422<br>412     | 24<br>50            | 412<br>412     | 19<br>40            | 402             | 14                   | 27             | 195  | 132            | 18                | 28,5              | 20   | 265 | 230            | 300<br>4 | 250            | 22,5                         | 16             | 280  | 214 | 198 | 327 | 62             |                |      |
| 125<br>126 | 297 | 200<br>151     | 59   | 311 <sup>4)</sup> | 60<br>70 | 105      | 32<br>80              | 526            | 32<br>80            | 526            | 28<br>60            | 502             | 24<br>50             | 492            | 18   | 30             | 236               | 160               | 22   | 35  | 25             | 300      | 250<br>5       | 300                          | 26,5           | 19   | 345 | 264 | 245 | 396            | 110            |      |
| 140        | 297 | 218<br>169     | 59   | 329 <sup>4)</sup> | 80       | 130      | 32<br>80              | 569            | 32<br>80            | 569            | 28<br>60            | 545             | 24<br>50             | 535            | 18   | 30             | 250 <sup>1)</sup> | 160 <sup>1)</sup> | 22   | 35  | 25             | 300      | 250<br>5       | 300                          | 26,5           | 19   | 345 | 282 | 263 | 410            | 123            |      |
| 160        | 373 | 250<br>191     | 68,5 | 385 <sup>4)</sup> | 90       | 130      | 42<br>110             | 659            | 42<br>110           | 659            | 32<br>80            | 623             | 32<br>80             | 623            | 22   | 34             | 295 <sup>2)</sup> | 200 <sup>2)</sup> | 27   | 42  | 30             | 400      | 350<br>5       | 400                          | 31,5           | 22   | 430 | 326 | 304 | 495            | 195            |      |
| 180        | 373 | 275<br>216     | 68,5 | 410 <sup>4)</sup> | 100      | 165      | 42<br>110             | 719            | 42<br>110           | 719            | 32<br>80            | 683             | 32<br>80             | 683            | 22   | 34             | 315 <sup>3)</sup> | 200 <sup>3)</sup> | 27   | 42  | 30             | 400      | 350<br>5       | 400                          | 31,5           | 22   | 430 | 351 | 329 | 515            | 260            |      |

1) For high speed shaft H dimension is -15 mm, H<sub>0</sub> +15 mm.

2) For high speed shaft H dimension is -8 mm, H<sub>0</sub> +8 mm.

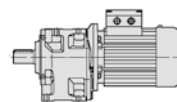
3) For high speed shaft H dimension is -29 mm, H<sub>0</sub> +29 mm.

4) For R 3l c dimension is -4 mm (sizes 125 ... 140), -6 mm (sizes 160 and 180).

## Mounting positions and oil quantities [l]

| Size     | B3 | B6 | B7 | B8 | V5 | V6 | Size     | B3   | B6, B7 | B8, V6 | V5   |
|----------|----|----|----|----|----|----|----------|------|--------|--------|------|
| 50, 51   |    |    |    |    |    |    | 50, 51   | 0,8  | 1,1    | 1,1    | 1,4  |
| 63, 64   |    |    |    |    |    |    | 63, 64   | 1,6  | 2,2    | 2,2    | 2,8  |
| 80, 81   |    |    |    |    |    |    | 80, 81   | 3,1  | 4,3    | 4,3    | 5,5  |
| 100, 101 |    |    |    |    |    |    | 100, 101 | 5,6  | 7,1    | 8      | 10   |
| 125, 126 |    |    |    |    |    |    | 125, 126 | 10,2 | 13     | 14,6   | 18,3 |
| 140      |    |    |    |    |    |    | 140      | 11,6 | 14,8   | 16,6   | 21   |
| 160      |    |    |    |    |    |    | 160      | 19,6 | 25     | 28     | 35   |
| 180      |    |    |    |    |    |    | 180      | 23   | 29     | 32     | 40   |

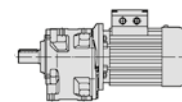
UT.C 626



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |      | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|------|--------|
| 1)          |                            |                |       | 2)                                         |            |      |        |
| 0,09        | 6,91                       | 11,9           | 1,12  | MR 3I 50                                   | - 11 × 140 | 63 A | 6 130  |
|             | 8,4                        | 9,8            | 1,5   | MR 3I 50                                   | - 11 × 140 | 63 A | 6 107  |
|             | 8,4                        | 9,8            | 1,9   | MR 3I 51                                   | - 11 × 140 | 63 A | 6 107  |
|             | 9,7                        | 8,5            | 0,8   | MR 3I 40                                   | - 11 × 140 | 63 A | 6 92,8 |
|             | 10,3                       | 8              | 2     | MR 3I 50                                   | - 11 × 140 | 63 A | 6 87,3 |
|             | 10,3                       | 8              | 2,8   | MR 3I 51                                   | - 11 × 140 | 63 A | 6 87,3 |
|             | 12,1                       | 6,8            | 1,12  | MR 3I 40                                   | - 11 × 140 | 63 A | 6 74,4 |
|             | 12,1                       | 6,8            | 1,32  | MR 3I 41                                   | - 11 × 140 | 63 A | 6 74,4 |
|             | 12,6                       | 6,5            | 2,5   | MR 3I 50                                   | - 11 × 140 | 63 A | 6 71,4 |
|             | 13,7                       | 6              | 1,25  | MR 3I 40                                   | - 11 × 140 | 63 A | 6 65,9 |
|             | 13,7                       | 6              | 1,6   | MR 3I 41                                   | - 11 × 140 | 63 A | 6 65,9 |
|             | 13,8                       | 6              | 2,65  | MR 3I 50                                   | - 11 × 140 | 63 A | 6 65   |
|             | 15,1                       | 5,5            | 3     | MR 3I 50                                   | - 11 × 140 | 63 A | 6 59,5 |
|             | 16,1                       | 5,1            | 1,5   | MR 3I 40                                   | - 11 × 140 | 63 A | 6 55,9 |
|             | 16,1                       | 5,1            | 1,9   | MR 3I 41                                   | - 11 × 140 | 63 A | 6 55,9 |
|             | 17,5                       | 4,7            | 1,6   | MR 3I 40                                   | - 11 × 140 | 63 A | 6 51,3 |
|             | 17,5                       | 4,7            | 2     | MR 3I 41                                   | - 11 × 140 | 63 A | 6 51,3 |
|             | 17,5                       | 4,7            | 3,35  | MR 3I 50                                   | - 11 × 140 | 63 A | 6 51,4 |
|             | 18,9                       | 4,35           | 0,85  | MR 3I 32                                   | - 11 × 140 | 63 A | 6 47,5 |
|             | 20,1                       | 4,1            | 1,8   | MR 3I 40                                   | - 11 × 140 | 63 A | 6 44,7 |
|             | 20,1                       | 4,1            | 2,24  | MR 3I 41                                   | - 11 × 140 | 63 A | 6 44,7 |
|             | 20,9                       | 3,94           | 4     | MR 3I 50                                   | - 11 × 140 | 63 A | 6 43   |
|             | 21,4                       | 3,86           | 0,95  | MR 3I 32                                   | - 11 × 140 | 63 A | 6 42,1 |
|             | 22,7                       | 3,63           | 2,12  | MR 3I 40                                   | - 11 × 140 | 63 A | 6 39,6 |
|             | 22,7                       | 3,63           | 2,65  | MR 3I 41                                   | - 11 × 140 | 63 A | 6 39,6 |
|             | 25,2                       | 3,27           | 1,12  | MR 3I 32                                   | - 11 × 140 | 63 A | 6 35,7 |
|             | 26,8                       | 3,08           | 2,5   | MR 3I 40                                   | - 11 × 140 | 63 A | 6 33,6 |
|             | 28,1                       | 2,94           | 1,25  | MR 3I 32                                   | - 11 × 140 | 63 A | 6 32,1 |
|             | 29,2                       | 2,82           | 2,65  | MR 3I 40                                   | - 11 × 140 | 63 A | 6 30,8 |
|             | 32,1                       | 2,57           | 1,4   | MR 3I 32                                   | - 11 × 140 | 63 A | 6 28,1 |
|             | 34,3                       | 2,41           | 3     | MR 3I 40                                   | - 11 × 140 | 63 A | 6 26,2 |
|             | 36,2                       | 2,28           | 1,6   | MR 3I 32                                   | - 11 × 140 | 63 A | 6 24,9 |
|             | 40,7                       | 2,07           | 2,8   | MR 2I 40                                   | - 11 × 140 | 63 A | 6 22,1 |
|             | 42,6                       | 1,94           | 1,9   | MR 3I 32                                   | - 11 × 140 | 63 A | 6 21,1 |
|             | 47,5                       | 1,74           | 2,12  | MR 3I 32                                   | - 11 × 140 | 63 A | 6 18,9 |
|             | 54,7                       | 1,51           | 2,24  | MR 3I 32                                   | - 11 × 140 | 63 A | 6 16,5 |
|             | 66,8                       | 1,26           | 2,5   | MR 2I 32                                   | - 11 × 140 | 63 A | 6 13,5 |
|             | 83,4                       | 1,01           | 3,35  | MR 2I 32                                   | - 11 × 140 | 63 A | 6 10,8 |
|             | 94,1                       | 0,9            | 3,75  | MR 2I 32                                   | - 11 × 140 | 63 A | 6 9,57 |
| 0,12        | 6,91                       | 15,9           | 0,85  | MR 3I 50                                   | - 11 × 140 | 63 B | 6 130  |
|             | 8,4                        | 13,1           | 1,12  | MR 3I 50                                   | - 11 × 140 | 63 B | 6 107  |
|             | 8,4                        | 13,1           | 1,4   | MR 3I 51                                   | - 11 × 140 | 63 B | 6 107  |
|             | 10,3                       | 10,7           | 1,5   | MR 3I 50                                   | - 11 × 140 | 63 B | 6 87,3 |
|             | 10,3                       | 10,7           | 2     | MR 3I 51                                   | - 11 × 140 | 63 B | 6 87,3 |
|             | 10,7                       | 10,2           | 1,32  | MR 3I 50                                   | - 11 × 140 | 63 A | 4 130  |
|             | 12,1                       | 9,1            | 0,8   | MR 3I 40                                   | - 11 × 140 | 63 B | 6 74,4 |
|             | 12,1                       | 9,1            | 1     | MR 3I 41                                   | - 11 × 140 | 63 B | 6 74,4 |
|             | 13,1                       | 8,4            | 1,7   | MR 3I 50                                   | - 11 × 140 | 63 A | 4 107  |
|             | 13,1                       | 8,4            | 2,24  | MR 3I 51                                   | - 11 × 140 | 63 A | 4 107  |
|             | 13,7                       | 8,1            | 0,95  | MR 3I 40                                   | - 11 × 140 | 63 B | 6 65,9 |
|             | 13,7                       | 8,1            | 1,18  | MR 3I 41                                   | - 11 × 140 | 63 B | 6 65,9 |
|             | 13,8                       | 7,9            | 2     | MR 3I 50                                   | - 11 × 140 | 63 B | 6 65   |
|             | 13,8                       | 7,9            | 2,8   | MR 3I 51                                   | - 11 × 140 | 63 B | 6 65   |
|             | 15,1                       | 7,3            | 0,95  | MR 3I 40                                   | - 11 × 140 | 63 A | 4 92,8 |
|             | 16                         | 6,9            | 2,36  | MR 3I 50                                   | - 11 × 140 | 63 A | 4 87,3 |
|             | 16                         | 6,9            | 3,15  | MR 3I 51                                   | - 11 × 140 | 63 A | 4 87,3 |
|             | 16,1                       | 6,8            | 1,12  | MR 3I 40                                   | - 11 × 140 | 63 B | 6 55,9 |
|             | 16,1                       | 6,8            | 1,4   | MR 3I 41                                   | - 11 × 140 | 63 B | 6 55,9 |
|             | 17,5                       | 6,3            | 2,5   | MR 3I 50                                   | - 11 × 140 | 63 B | 6 51,4 |
|             | 18,8                       | 5,8            | 1,32  | MR 3I 40                                   | - 11 × 140 | 63 A | 4 74,4 |
|             | 18,8                       | 5,8            | 1,6   | MR 3I 41                                   | - 11 × 140 | 63 A | 4 74,4 |
|             | 19,6                       | 5,6            | 2,8   | MR 3I 50                                   | - 11 × 140 | 63 A | 4 71,4 |
|             | 20,1                       | 5,5            | 1,4   | MR 3I 40                                   | - 11 × 140 | 63 B | 6 44,7 |
|             | 20,1                       | 5,5            | 1,7   | MR 3I 41                                   | - 11 × 140 | 63 B | 6 44,7 |
|             | 21,2                       | 5,2            | 1,4   | MR 3I 40                                   | - 11 × 140 | 63 A | 4 65,9 |

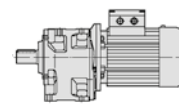
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |      | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|------|--------|
| 1)          |                            |                |       | 2)                                         |            |      |        |
| 0,12        | 21,2                       | 5,2            | 1,8   | MR 3I 41                                   | - 11 × 140 | 63 A | 4 65,9 |
|             | 21,5                       | 5,1            | 3,15  | MR 3I 50                                   | - 11 × 140 | 63 A | 4 65   |
|             | 22,7                       | 4,84           | 2     | MR 3I 41                                   | - 11 × 140 | 63 B | 6 39,6 |
|             | 23,5                       | 4,67           | 3,35  | MR 3I 50                                   | - 11 × 140 | 63 A | 4 59,5 |
|             | 25                         | 4,4            | 1,7   | MR 3I 40                                   | - 11 × 140 | 63 A | 4 55,9 |
|             | 25                         | 4,4            | 2,12  | MR 3I 41                                   | - 11 × 140 | 63 A | 4 55,9 |
|             | 25,2                       | 4,37           | 0,85  | MR 3I 32                                   | - 11 × 140 | 63 B | 6 35,7 |
|             | 27,2                       | 4,04           | 4     | MR 3I 50                                   | - 11 × 140 | 63 A | 4 51,4 |
|             | 27,3                       | 4,03           | 1,9   | MR 3I 40                                   | - 11 × 140 | 63 A | 4 51,3 |
|             | 27,3                       | 4,03           | 2,24  | MR 3I 41                                   | - 11 × 140 | 63 A | 4 51,3 |
|             | 29,5                       | 3,73           | 1     | MR 3I 32                                   | - 11 × 140 | 63 A | 4 47,5 |
|             | 31,3                       | 3,51           | 2,12  | MR 3I 40                                   | - 11 × 140 | 63 A | 4 44,7 |
|             | 31,3                       | 3,51           | 2,65  | MR 3I 41                                   | - 11 × 140 | 63 A | 4 44,7 |
|             | 33,3                       | 3,31           | 1,12  | MR 3I 32                                   | - 11 × 140 | 63 A | 4 42,1 |
|             | 35,3                       | 3,11           | 2,36  | MR 3I 40                                   | - 11 × 140 | 63 A | 4 39,6 |
|             | 35,3                       | 3,11           | 3     | MR 3I 41                                   | - 11 × 140 | 63 A | 4 39,6 |
|             | 36,2                       | 3,04           | 1,18  | MR 3I 32                                   | - 11 × 140 | 63 B | 6 24,9 |
|             | 39,2                       | 2,81           | 1,32  | MR 3I 32                                   | - 11 × 140 | 63 A | 4 35,7 |
|             | 40,7                       | 2,76           | 2,12  | MR 2I 40                                   | - 11 × 140 | 63 B | 6 22,1 |
|             | 41,6                       | 2,64           | 2,8   | MR 3I 40                                   | - 11 × 140 | 63 A | 4 33,6 |
|             | 43,7                       | 2,52           | 1,4   | MR 3I 32                                   | - 11 × 140 | 63 A | 4 32,1 |
|             | 45,5                       | 2,42           | 3     | MR 3I 40                                   | - 11 × 140 | 63 A | 4 30,8 |
|             | 49,7                       | 2,26           | 3     | MR 2I 40                                   | - 11 × 140 | 63 B | 6 18,1 |
|             | 49,9                       | 2,21           | 1,6   | MR 3I 32                                   | - 11 × 140 | 63 A | 4 28,1 |
|             | 53,4                       | 2,06           | 3,35  | MR 3I 40                                   | - 11 × 140 | 63 A | 4 26,2 |
|             | 55,5                       | 2,02           | 3,35  | MR 2I 40                                   | - 11 × 140 | 63 B | 6 16,2 |
|             | 56,3                       | 1,95           | 1,8   | MR 3I 32                                   | - 11 × 140 | 63 A | 4 24,9 |
|             | 63,3                       | 1,77           | 3,35  | MR 2I 40                                   | - 11 × 140 | 63 A | 4 22,1 |
|             | 66,3                       | 1,66           | 2,12  | MR 3I 32                                   | - 11 × 140 | 63 A | 4 21,1 |
|             | 66,8                       | 1,68           | 1,9   | MR 2I 32                                   | - 11 × 140 | 63 B | 6 13,5 |
|             | 73,9                       | 1,49           | 2,36  | MR 3I 32                                   | - 11 × 140 | 63 A | 4 18,9 |
|             | 83,4                       | 1,35           | 2,5   | MR 2I 32                                   | - 11 × 140 | 63 B | 6 10,8 |
|             | 85                         | 1,29           | 2,5   | MR 3I 32                                   | - 11 × 140 | 63 A | 4 16,5 |
|             | 94,1                       | 1,19           | 2,8   | MR 2I 32                                   | - 11 × 140 | 63 B | 6 9,57 |
|             | 104                        | 1,08           | 3     | MR 2I 32                                   | - 11 × 140 | 63 A | 4 13,5 |
|             | 130                        | 0,87           | 4     | MR 2I 32                                   | - 11 × 140 | 63 A | 4 10,8 |
|             | 146                        | 0,77           | 4,5   | MR 2I 32                                   | - 11 × 140 | 63 A | 4 9,57 |
|             | 172                        | 0,65           | 5,3   | MR 2I 32                                   | - 11 × 140 | 63 A | 4 8,12 |
|             | 192                        | 0,58           | 5,6   | MR 2I 32                                   | - 11 × 140 | 63 A | 4 7,29 |
|             | 221                        | 0,51           | 6,7   | MR 2I 32                                   | - 11 × 140 | 63 A | 4 6,33 |
|             | 277                        | 0,41           | 6,7   | MR 2I 32                                   | - 11 × 140 | 63 A | 4 5,06 |
| 0,18        | 6,33                       | 26,1           | 1,06  | MR 3I 63                                   | - 14 × 160 | 71 A | 6 142  |
|             | 8,09                       | 20,4           | 1,5   | MR 3I 63                                   | - 14 × 160 | 71 A | 6 111  |
|             | 8,09                       | 20,4           | 1,8   | MR 3I 64                                   | - 14 × 160 | 71 A | 6 111  |
|             | 10,1                       | 16,3           | 2     | MR 3I 63                                   | - 14 × 160 | 71 A | 6 89   |
|             | 10,1                       | 16,3           | 2,65  | MR 3I 64                                   | - 14 × 160 | 71 A | 6 89   |
|             | 10,7                       | 15,4           | 0,85  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 130  |
|             | 11,6                       | 14,2           | 1     | MR 3I 50                                   | - 14 × 160 | 71 A | 6 77,7 |
|             | 11,6                       | 14,2           | 1,32  | MR 3I 51                                   | - 14 × 160 | 71 A | 6 77,7 |
|             | 12,1                       | 13,7           | 2,5   | MR 3I 63                                   | - 14 × 160 | 71 A | 6 74,5 |
|             | 12,1                       | 12,6           | 1,12  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 107  |
|             | 13,1                       | 12,6           | 1,5   | MR 3I 51                                   | - 11 × 140 | 63 B | 4 107  |
|             | 14,2                       | 11,6           | 1,4   | MR 3I 50                                   | - 14 × 160 | 71 A | 6 63,2 |
|             | 14,2                       | 11,6           | 1,9   | MR 3I 51                                   | - 14 × 160 | 71 A | 6 63,2 |
|             | 14,7                       | 11,2           | 3     | MR 3I 63                                   | - 14 × 160 | 71 A | 6 61,3 |
|             | 16                         | 10,3           | 1,6   | MR 3I 50                                   | - 11 × 140 | 63 B | 4 87,3 |
|             | 16                         | 10,3           | 2,12  | MR 3I 51                                   | - 11 × 140 | 63 B | 4 87,3 |
|             | 16,7                       | 9,9            | 0,95  | MR 3I 41                                   | - 14 × 160 | 71 A | 6 53,9 |
|             | 17,4                       | 9,5            | 1,7   | MR 3I 50                                   | - 14 × 160 | 71 A | 6 51,7 |
|             | 17,4                       | 9,5            | 2,24  | MR 3I 51                                   | - 14 × 160 | 71 A | 6 51,7 |
|             | 18,8                       | 8,8            | 0,85  | MR 3I 40                                   | - 11 × 140 | 63 B | 4 74,4 |
|             | 18,8                       | 8,8            | 1,06  | MR 3I 41                                   | - 11 × 140 | 63 B | 4 74,4 |
|             | 19,6                       | 8,4            | 1,9   | MR 3I 50                                   | - 11 × 140 | 63 B | 4 71,4 |
|             | 19,6                       | 8,4            | 2,65  | MR 3I 51                                   | - 11 × 140 | 63 B | 4 71,4 |
|             | 21,2                       | 7,8            | 0,95  | MR 3I 40                                   | - 11 × 140 | 63 B | 4 65,9 |

1) Powers valid for continuous duty S1; **increase** possible for S2... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.  
2) For complete designation when ordering, see ch. 3.



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |      |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|------|---|------|
| 1)          |                            |                |       | 2)                                         |            |      |   |      |
| 0,18        | 21,2                       | 7,8            | 1,25  | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 65,9 |
|             | 21,5                       | 7,7            | 2,12  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 | 65   |
|             | 21,5                       | 7,7            | 3     | MR 3I 51                                   | - 11 × 140 | 63 B | 4 | 65   |
|             | 23,5                       | 7              | 2,24  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 | 59,5 |
|             | 25                         | 6,6            | 1,12  | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 55,9 |
|             | 25                         | 6,6            | 1,4   | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 55,9 |
|             | 27,2                       | 6,1            | 2,65  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 | 51,4 |
|             | 27,3                       | 6              | 1,25  | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 51,3 |
|             | 27,3                       | 6              | 1,5   | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 51,3 |
|             | 31,3                       | 5,3            | 1,4   | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 44,7 |
|             | 31,3                       | 5,3            | 1,7   | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 44,7 |
|             | 32,5                       | 5,1            | 3,15  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 | 43   |
|             | 35,3                       | 4,67           | 1,6   | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 39,6 |
|             | 35,3                       | 4,67           | 2     | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 39,6 |
|             | 35,7                       | 4,62           | 3,35  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 | 39,2 |
|             | 39,1                       | 4,22           | 3,75  | MR 3I 50                                   | - 11 × 140 | 63 B | 4 | 35,8 |
|             | 39,2                       | 4,21           | 0,85  | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 35,7 |
|             | 41,6                       | 3,96           | 1,9   | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 33,6 |
|             | 41,6                       | 3,96           | 2,36  | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 33,6 |
|             | 43,7                       | 3,78           | 0,9   | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 32,1 |
|             | 45,5                       | 3,63           | 2     | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 30,8 |
|             | 45,5                       | 3,63           | 2,5   | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 30,8 |
|             | 49,9                       | 3,31           | 1,06  | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 28,1 |
|             | 53,4                       | 3,09           | 2,24  | MR 3I 40                                   | - 11 × 140 | 63 B | 4 | 26,2 |
|             | 53,4                       | 3,09           | 2,65  | MR 3I 41                                   | - 11 × 140 | 63 B | 4 | 26,2 |
|             | 55,6                       | 3,03           | 1,9   | MR 2I 40                                   | - 14 × 160 | 71 A | 6 | 16,2 |
|             | 56,3                       | 2,93           | 1,18  | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 24,9 |
|             | 63,3                       | 2,66           | 2,12  | MR 2I 40                                   | - 11 × 140 | 63 B | 4 | 22,1 |
|             | 66,3                       | 2,49           | 1,4   | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 21,1 |
|             | 67,7                       | 2,49           | 2,65  | MR 2I 40                                   | - 14 × 160 | 71 A | 6 | 13,3 |
|             | 73,9                       | 2,23           | 1,6   | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 18,9 |
|             | 77,3                       | 2,18           | 3     | MR 2I 40                                   | - 11 × 140 | 63 B | 4 | 18,1 |
|             | 85                         | 1,94           | 1,7   | MR 3I 32                                   | - 11 × 140 | 63 B | 4 | 16,5 |
|             | 86,3                       | 1,95           | 3,35  | MR 2I 40                                   | - 11 × 140 | 63 B | 4 | 16,2 |
|             | 96,6                       | 1,74           | 4     | MR 2I 40                                   | - 11 × 140 | 63 B | 4 | 14,5 |
|             | 104                        | 1,62           | 1,9   | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 13,5 |
|             | 109                        | 1,54           | 4,5   | MR 2I 40                                   | - 11 × 140 | 63 B | 4 | 12,8 |
|             | 130                        | 1,3            | 2,65  | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 10,8 |
|             | 146                        | 1,15           | 3     | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 9,57 |
|             | 172                        | 0,98           | 3,35  | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 8,12 |
|             | 192                        | 0,88           | 3,75  | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 7,29 |
|             | 221                        | 0,76           | 4,5   | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 6,33 |
|             | 277                        | 0,61           | 4,5   | MR 2I 32                                   | - 11 × 140 | 63 B | 4 | 5,06 |
| 0,25        | 8,09                       | 28,3           | 1,06  | MR 3I 63                                   | - 14 × 160 | 71 B | 6 | 111  |
|             | 8,09                       | 28,3           | 1,32  | MR 3I 64                                   | - 14 × 160 | 71 B | 6 | 111  |
|             | 9,85                       | 23,3           | 1,18  | MR 3I 63                                   | - 14 × 160 | 71 A | 4 | 142  |
|             | 10,1                       | 22,7           | 1,5   | MR 3I 63                                   | - 14 × 160 | 71 B | 6 | 89   |
|             | 10,1                       | 22,7           | 1,9   | MR 3I 64                                   | - 14 × 160 | 71 B | 6 | 89   |
|             | 11,6                       | 19,8           | 0,95  | MR 3I 51                                   | - 14 × 160 | 71 B | 6 | 77,7 |
|             | 12,1                       | 19             | 2,36  | MR 3I 64                                   | - 14 × 160 | 71 B | 6 | 74,5 |
|             | 12,6                       | 18,2           | 1,7   | MR 3I 63                                   | - 14 × 160 | 71 A | 4 | 111  |
|             | 12,6                       | 18,2           | 2     | MR 3I 64                                   | - 14 × 160 | 71 A | 4 | 111  |
|             | 13,1                       | 17,6           | 0,85  | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 107  |
|             | 13,1                       | 17,6           | 1,06  | MR 3I 51                                   | - 11 × 140 | 63 C | 4 | 107  |
|             | 14,2                       | 16,1           | 1     | MR 3I 50                                   | - 14 × 160 | 71 B | 6 | 63,2 |
|             | 14,2                       | 16,1           | 1,32  | MR 3I 51                                   | - 14 × 160 | 71 B | 6 | 63,2 |
|             | 14,7                       | 15,6           | 2,12  | MR 3I 63                                   | - 14 × 160 | 71 B | 6 | 61,3 |
|             | 14,8                       | 15,5           | 0,85  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 94,4 |
|             | 15,7                       | 14,6           | 2,24  | MR 3I 63                                   | - 14 × 160 | 71 A | 4 | 89   |
|             | 15,7                       | 14,6           | 3     | MR 3I 64                                   | - 14 × 160 | 71 A | 4 | 89   |
|             | 16                         | 14,3           | 1,12  | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 87,3 |
|             | 16                         | 14,3           | 1,5   | MR 3I 51                                   | - 11 × 140 | 63 C | 4 | 87,3 |
|             | 17,4                       | 13,2           | 1,7   | MR 3I 51                                   | - 14 × 160 | 71 B | 6 | 51,7 |
|             | 18                         | 12,7           | 1,12  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 77,7 |
|             | 18                         | 12,7           | 1,5   | MR 3I 51                                   | - 14 × 160 | 71 A | 4 | 77,7 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |      |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|------|---|------|
| 1)          |                            |                |       | 2)                                         |            |      |   |      |
| 0,25        | 18,8                       | 12,2           | 2,8   | MR 3I 63                                   | - 14 × 160 | 71 A | 4 | 74,5 |
|             | 19,4                       | 11,8           | 2,8   | MR 3I 63                                   | - 14 × 160 | 71 B | 6 | 46,3 |
|             | 19,6                       | 11,7           | 1,4   | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 71,4 |
|             | 19,6                       | 11,7           | 1,9   | MR 3I 51                                   | - 11 × 140 | 63 C | 4 | 71,4 |
|             | 21,2                       | 10,8           | 0,9   | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 65,9 |
|             | 21,5                       | 10,6           | 1,5   | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 65   |
|             | 21,5                       | 10,6           | 2,12  | MR 3I 51                                   | - 11 × 140 | 63 C | 4 | 65   |
|             | 22,1                       | 10,4           | 1,5   | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 63,2 |
|             | 22,1                       | 10,4           | 2,12  | MR 3I 51                                   | - 14 × 160 | 71 A | 4 | 63,2 |
|             | 22,8                       | 10             | 3,35  | MR 3I 63                                   | - 14 × 160 | 71 A | 4 | 61,3 |
|             | 23,5                       | 9,7            | 1,6   | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 59,5 |
|             | 23,5                       | 9,7            | 2,36  | MR 3I 51                                   | - 11 × 140 | 63 C | 4 | 59,5 |
|             | 24,5                       | 9,4            | 1,6   | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 57,1 |
|             | 24,5                       | 9,4            | 2,24  | MR 3I 51                                   | - 14 × 160 | 71 A | 4 | 57,1 |
|             | 25                         | 9,2            | 0,8   | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 55,9 |
|             | 25                         | 9,2            | 1,06  | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 55,9 |
|             | 25,3                       | 9,1            | 3,75  | MR 3I 63                                   | - 14 × 160 | 71 A | 4 | 55,4 |
|             | 26                         | 8,8            | 0,85  | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 53,9 |
|             | 26                         | 8,8            | 1,06  | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 53,9 |
|             | 27,1                       | 8,5            | 1,9   | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 51,7 |
|             | 27,1                       | 8,5            | 2,5   | MR 3I 51                                   | - 14 × 160 | 71 A | 4 | 51,7 |
|             | 27,2                       | 8,4            | 1,9   | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 51,4 |
|             | 27,2                       | 8,4            | 2,65  | MR 3I 51                                   | - 11 × 140 | 63 C | 4 | 51,4 |
|             | 27,3                       | 8,4            | 0,9   | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 51,3 |
|             | 27,3                       | 8,4            | 1,06  | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 51,3 |
|             | 29,3                       | 7,8            | 0,95  | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 47,7 |
|             | 29,3                       | 7,8            | 1,18  | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 47,7 |
|             | 29,7                       | 7,7            | 2     | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 47,1 |
|             | 29,7                       | 7,7            | 2,8   | MR 3I 51                                   | - 14 × 160 | 71 A | 4 | 47,1 |
|             | 31,3                       | 7,3            | 1     | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 44,7 |
|             | 31,3                       | 7,3            | 1,25  | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 44,7 |
|             | 32,5                       | 7              | 2,24  | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 43   |
|             | 32,5                       | 7,1            | 2,24  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 43,1 |
|             | 32,5                       | 7,1            | 3,15  | MR 3I 51                                   | - 14 × 160 | 71 A | 4 | 43,1 |
|             | 34,6                       | 6,6            | 1,12  | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 40,5 |
|             | 34,6                       | 6,6            | 1,4   | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 40,5 |
|             | 35,3                       | 6,5            | 1,12  | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 39,6 |
|             | 35,3                       | 6,5            | 1,4   | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 39,6 |
|             | 35,7                       | 6,4            | 2,5   | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 39,2 |
|             | 37,6                       | 6,1            | 2,65  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 37,2 |
|             | 37,7                       | 6,1            | 1,25  | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 37,1 |
|             | 37,7                       | 6,1            | 1,5   | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 37,1 |
|             | 39,1                       | 5,9            | 2,65  | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 35,8 |
|             | 40,4                       | 5,8            | 2,24  | MR 2I 50                                   | - 14 × 160 | 71 B | 6 | 22,3 |
|             | 41,6                       | 5,5            | 1,32  | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 33,6 |
|             | 41,6                       | 5,5            | 1,7   | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 33,6 |
|             | 43,2                       | 5,3            | 1,32  | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 32,4 |
|             | 43,2                       | 5,3            | 1,7   | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 32,4 |
|             | 44,9                       | 5,1            | 3     | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 31,2 |
|             | 45,2                       | 5,1            | 3,15  | MR 3I 50                                   | - 11 × 140 | 63 C | 4 | 31   |
|             | 45,5                       | 5              | 1,5   | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 30,8 |
|             | 45,5                       | 5              | 1,8   | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 30,8 |
|             | 48,8                       | 4,7            | 1,5   | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 28,7 |
|             | 48,8                       | 4,7            | 1,9   | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 28,7 |
|             | 49,3                       | 4,65           | 3,35  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 28,4 |
|             | 49,9                       | 4,6            | 0,8   | MR 3I 32                                   | - 11 × 140 | 63 C | 4 | 28,1 |
|             | 53,4                       | 4,3            | 1,6   | MR 3I 40                                   | - 11 × 140 | 63 C | 4 | 26,2 |
|             | 53,4                       | 4,3            | 1,9   | MR 3I 41                                   | - 11 × 140 | 63 C | 4 | 26,2 |
|             | 53,9                       | 4,25           | 3,55  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 26   |
|             | 55,6                       | 4,21           | 1,4   | MR 2I 40                                   | - 14 × 160 | 71 B | 6 | 16,2 |
|             | 56,3                       | 4,07           | 0,9   | MR 3I 32                                   | - 11 × 140 | 63 C | 4 | 24,9 |
|             | 57,5                       | 3,99           | 1,8   | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 24,4 |
|             | 57,5                       | 3,99           | 2,24  | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 24,4 |
|             | 62,4                       | 3,67           | 4,25  | MR 3I 50                                   | - 14 × 160 | 71 A | 4 | 22,4 |
|             | 62,8                       | 3,65           | 2     | MR 3I 40                                   | - 14 × 160 | 71 A | 4 | 22,3 |
|             | 62,8                       | 3,65           | 2,5   | MR 3I 41                                   | - 14 × 160 | 71 A | 4 | 22,3 |
|             | 62,9                       | 3,72           | 3,35  | MR 2I 50                                   | - 14 × 160 | 71 A | 4 | 22,3 |
|             | 63,3                       | 3,69           | 1,6   | MR 2I 40                                   | - 11 × 140 | 63 C | 4 | 22,1 |
|             | 66,3                       | 3,46           | 1,06  | MR 3I 32                                   | - 11 × 140 | 63 C | 4 | 21,1 |
|             | 67,7                       | 3,46           | 1,9   | MR 2I 40                                   | - 14 × 160 | 71 B | 6 | 13,3 |



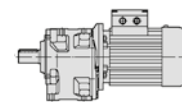
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |      |   |      | $i$ |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------|---|------|-----|
| 1)          |                            |                |       | 2)                                         |      |   |      |     |
| 0,25        | 67,7                       | 3,46           | 2,12  | MR 2I 41 - 14 × 160                        | 71 B | 6 | 13,3 |     |
|             | 73,7                       | 3,11           | 2,12  | MR 3I 40 - 14 × 160                        | 71 A | 4 | 19   |     |
|             | 73,7                       | 3,11           | 2,65  | MR 3I 41 - 14 × 160                        | 71 A | 4 | 19   |     |
|             | 73,9                       | 3,1            | 1,18  | MR 3I 32 - 11 × 140                        | 63 C | 4 | 18,9 |     |
|             | 76,6                       | 3,06           | 2,24  | MR 2I 40 - 14 × 160                        | 71 B | 6 | 11,8 |     |
|             | 76,6                       | 3,06           | 2,65  | MR 2I 41 - 14 × 160                        | 71 B | 6 | 11,8 |     |
|             | 77,3                       | 3,02           | 2,12  | MR 2I 40 - 11 × 140                        | 63 C | 4 | 18,1 |     |
|             | 85                         | 2,7            | 1,18  | MR 3I 32 - 11 × 140                        | 63 C | 4 | 16,5 |     |
|             | 86,3                       | 2,71           | 2,5   | MR 2I 40 - 11 × 140                        | 63 C | 4 | 16,2 |     |
|             | 86,3                       | 2,71           | 3     | MR 2I 41 - 11 × 140                        | 63 C | 4 | 16,2 |     |
|             | 86,4                       | 2,71           | 2,12  | MR 2I 40 - 14 × 160                        | 71 A | 4 | 16,2 |     |
|             | 92,2                       | 2,49           | 2,12  | MR 3I 40 - 14 × 160                        | 71 A | 4 | 15,2 |     |
|             | 96,6                       | 2,42           | 2,8   | MR 2I 40 - 11 × 140                        | 63 C | 4 | 14,5 |     |
|             | 104                        | 2,25           | 1,4   | MR 2I 32 - 11 × 140                        | 63 C | 4 | 13,5 |     |
|             | 105                        | 2,22           | 2,8   | MR 2I 40 - 14 × 160                        | 71 A | 4 | 13,3 |     |
|             | 109                        | 2,14           | 3,15  | MR 2I 40 - 11 × 140                        | 63 C | 4 | 12,8 |     |
|             | 119                        | 1,96           | 3,35  | MR 2I 40 - 14 × 160                        | 71 A | 4 | 11,8 |     |
|             | 128                        | 1,82           | 3,75  | MR 2I 40 - 11 × 140                        | 63 C | 4 | 10,9 |     |
|             | 130                        | 1,8            | 1,9   | MR 2I 32 - 11 × 140                        | 63 C | 4 | 10,8 |     |
|             | 133                        | 1,77           | 3,75  | MR 2I 40 - 14 × 160                        | 71 A | 4 | 10,6 |     |
|             | 146                        | 1,6            | 2,12  | MR 2I 32 - 11 × 140                        | 63 C | 4 | 9,57 |     |
|             | 149                        | 1,57           | 4,25  | MR 2I 40 - 14 × 160                        | 71 A | 4 | 9,41 |     |
|             | 172                        | 1,36           | 2,5   | MR 2I 32 - 11 × 140                        | 63 C | 4 | 8,12 |     |
|             | 175                        | 1,33           | 5     | MR 2I 40 - 14 × 160                        | 71 A | 4 | 7,98 |     |
|             | 191                        | 1,22           | 5,6   | MR 2I 40 - 14 × 160                        | 71 A | 4 | 7,32 |     |
|             | 192                        | 1,22           | 2,8   | MR 2I 32 - 11 × 140                        | 63 C | 4 | 7,29 |     |
|             | 221                        | 1,06           | 3,15  | MR 2I 32 - 11 × 140                        | 63 C | 4 | 6,33 |     |
|             | 277                        | 0,85           | 3,35  | MR 2I 32 - 11 × 140                        | 63 C | 4 | 5,06 |     |
|             | 345                        | 0,68           | 4,75  | MR 2I 32 - 11 × 140                        | 63 B | 2 | 8,12 |     |
|             | 384                        | 0,61           | 5,3   | MR 2I 32 - 11 × 140                        | 63 B | 2 | 7,29 |     |
|             | 442                        | 0,53           | 6     | MR 2I 32 - 11 × 140                        | 63 B | 2 | 6,33 |     |
|             | 554                        | 0,42           | 6,3   | MR 2I 32 - 11 × 140                        | 63 B | 2 | 5,06 |     |
| 0,37        | 5,84                       | 58             | 0,95  | MR 3I 80 - 19 × 200                        | 80 A | 6 | 154  |     |
|             | 7,13                       | 47,6           | 1,32  | MR 3I 80 - 19 × 200                        | 80 A | 6 | 126  |     |
|             | 7,13                       | 47,6           | 1,6   | MR 3I 81 - 19 × 200                        | 80 A | 6 | 126  |     |
|             | 8,09                       | 41,9           | 0,9   | MR 3I 64 - 14 × 160                        | 71 C | 6 | 111  |     |
|             | 8,9                        | 38,1           | 1,8   | MR 3I 80 - 19 × 200                        | 80 A | 6 | 101  |     |
|             | 8,9                        | 38,1           | 2,24  | MR 3I 81 - 19 × 200                        | 80 A | 6 | 101  |     |
|             | 9,85                       | 34,4           | 0,8   | MR 3I 63 - 14 × 160                        | 71 B | 4 | 142  |     |
|             | 10,1                       | 33,6           | 1     | MR 3I 63 - 14 × 160                        | 71 C | 6 | 89   |     |
|             | 10,1                       | 33,6           | 1,32  | MR 3I 64 - 14 × 160                        | 71 C | 6 | 89   |     |
|             | 10,6                       | 31,9           | 2,12  | MR 3I 80 - 19 × 200                        | 80 A | 6 | 84,6 |     |
|             | 10,6                       | 31,9           | 2,8   | MR 3I 81 - 19 × 200                        | 80 A | 6 | 84,6 |     |
|             | 12,1                       | 28,1           | 1,18  | MR 3I 63 - 14 × 160                        | 71 C | 6 | 74,5 |     |
|             | 12,1                       | 28,1           | 1,6   | MR 3I 64 - 14 × 160                        | 71 C | 6 | 74,5 |     |
|             | 12,6                       | 27             | 1,12  | MR 3I 63 - 14 × 160                        | 71 B | 4 | 111  |     |
|             | 12,6                       | 27             | 1,4   | MR 3I 64 - 14 × 160                        | 71 B | 4 | 111  |     |
|             | 13,6                       | 25             | 2,65  | MR 3I 80 - 19 × 200                        | 80 A | 6 | 66,3 |     |
|             | 14,2                       | 23,8           | 0,9   | MR 3I 51 - 14 × 160                        | 71 C | 6 | 63,2 |     |
|             | 14,7                       | 23,1           | 1,4   | MR 3I 63 - 14 × 160                        | 71 C | 6 | 61,3 |     |
|             | 14,7                       | 23,1           | 1,9   | MR 3I 64 - 14 × 160                        | 71 C | 6 | 61,3 |     |
|             | 15,3                       | 22,1           | 3     | MR 3I 80 - 19 × 200                        | 80 A | 6 | 58,7 |     |
|             | 15,7                       | 21,6           | 1,6   | MR 3I 63 - 14 × 160                        | 71 B | 4 | 89   |     |
|             | 15,7                       | 21,6           | 2     | MR 3I 64 - 14 × 160                        | 71 B | 4 | 89   |     |
|             | 16,1                       | 21,1           | 1     | MR 3I 51 - 19 × 200                        | 80 A | 6 | 55,9 |     |
|             | 17,8                       | 19,1           | 0,85  | MR 3I 50 - 19 × 200                        | 80 A | 6 | 50,6 |     |
|             | 17,8                       | 19,1           | 1,12  | MR 3I 51 - 19 × 200                        | 80 A | 6 | 50,6 |     |
|             | 18                         | 18,8           | 0,8   | MR 3I 50 - 14 × 160                        | 71 B | 4 | 77,7 |     |
|             | 18                         | 18,8           | 1     | MR 3I 51 - 14 × 160                        | 71 B | 4 | 77,7 |     |
|             | 18,8                       | 18,1           | 1,9   | MR 3I 63 - 14 × 160                        | 71 B | 4 | 74,5 |     |
|             | 18,8                       | 18,1           | 2,36  | MR 3I 64 - 14 × 160                        | 71 B | 4 | 74,5 |     |
|             | 19,4                       | 17,5           | 2,36  | MR 3I 64 - 14 × 160                        | 71 C | 6 | 46,3 |     |
|             | 20,4                       | 16,7           | 2     | MR 3I 63 - 19 × 200                        | 80 A | 6 | 44,2 |     |
|             | 20,9                       | 16,2           | 1     | MR 3I 50 - 14 × 160                        | 71 C | 6 | 43,1 |     |
|             | 20,9                       | 16,2           | 1,4   | MR 3I 51 - 14 × 160                        | 71 C | 6 | 43,1 |     |
|             | 22,1                       | 15,3           | 1,06  | MR 3I 50 - 14 × 160                        | 71 B | 4 | 63,2 |     |
| 0,37        | 22,1                       | 15,3           | 1,4   | MR 3I 51 - 14 × 160                        | 71 B | 4 | 63,2 |     |
|             | 22,8                       | 14,9           | 2,24  | MR 3I 63 - 14 × 160                        | 71 B | 4 | 61,3 |     |
|             | 22,8                       | 14,9           | 3     | MR 3I 64 - 14 × 160                        | 71 B | 4 | 61,3 |     |
|             | 24,5                       | 13,8           | 1,12  | MR 3I 50 - 14 × 160                        | 71 B | 4 | 57,1 |     |
|             | 24,5                       | 13,8           | 1,5   | MR 3I 51 - 14 × 160                        | 71 B | 4 | 57,1 |     |
|             | 25,3                       | 13,4           | 2,5   | MR 3I 63 - 14 × 160                        | 71 B | 4 | 55,4 |     |
|             | 26,1                       | 13             | 1,7   | MR 3I 51 - 19 × 200                        | 80 A | 6 | 34,5 |     |
|             | 27,1                       | 12,5           | 1,25  | MR 3I 50 - 14 × 160                        | 71 B | 4 | 51,7 |     |
|             | 27,1                       | 12,5           | 1,7   | MR 3I 51 - 14 × 160                        | 71 B | 4 | 51,7 |     |
|             | 27,8                       | 12,2           | 2,8   | MR 3I 63 - 14 × 160                        | 71 B | 4 | 50,4 |     |
|             | 29,3                       | 11,6           | 0,8   | MR 3I 41 - 14 × 160                        | 71 B | 4 | 47,7 |     |
|             | 29,7                       | 11,4           | 1,4   | MR 3I 50 - 14 × 160                        | 71 B | 4 | 47,1 |     |
|             | 29,7                       | 11,4           | 1,9   | MR 3I 51 - 14 × 160                        | 71 B | 4 | 47,1 |     |
|             | 30,2                       | 11,2           | 2,8   | MR 3I 63 - 14 × 160                        | 71 B | 4 | 46,3 |     |
|             | 31,3                       | 10,8           | 0,85  | MR 3I 41 - 14 × 160                        | 71 C | 6 | 28,7 |     |
|             | 32,5                       | 10,4           | 1,5   | MR 3I 50 - 14 × 160                        | 71 B | 4 | 43,1 |     |
|             | 32,5                       | 10,4           | 2,12  | MR 3I 51 - 14 × 160                        | 71 B | 4 | 43,1 |     |
|             | 33,7                       | 10,1           | 3,15  | MR 3I 63 - 14 × 160                        | 71 B | 4 | 41,6 |     |
|             | 34,6                       | 9,8            | 0,95  | MR 3I 41 - 14 × 160                        | 71 B | 4 | 40,5 |     |
|             | 34,7                       | 9,8            | 1,6   | MR 3I 50 - 14 × 160                        | 71 C | 6 | 26   |     |
|             | 34,7                       | 9,8            | 2,24  | MR 3I 51 - 14 × 160                        | 71 C | 6 | 26   |     |
|             | 37,3                       | 9,1            | 3,55  | MR 3I 63 - 14 × 160                        | 71 B | 4 | 37,6 |     |
|             | 37,6                       | 9              | 1,8   | MR 3I 50 - 14 × 160                        | 71 B | 4 | 37,2 |     |
|             | 37,6                       | 9              | 2,5   | MR 3I 51 - 14 × 160                        | 71 B | 4 | 37,2 |     |
|             | 37,7                       | 9              | 0,85  | MR 3I 40 - 14 × 160                        | 71 B | 4 | 37,1 |     |
|             | 37,7                       | 9              | 1     | MR 3I 41 - 14 × 160                        | 71 B | 4 | 37,1 |     |
|             | 40,4                       | 8,4            | 1,12  | MR 3I 41 - 14 × 160                        | 71 C | 6 | 22,3 |     |
|             | 40,4                       | 8,6            | 1,5   | MR 2I 50 - 14 × 160                        | 71 C | 6 | 22,3 |     |
|             | 43,2                       | 7,9            | 0,9   | MR 3I 40 - 14 × 160                        | 71 B | 4 | 32,4 |     |
|             | 43,2                       | 7,9            | 1,12  | MR 3I 41 - 14 × 160                        | 71 B | 4 | 32,4 |     |
|             | 44,9                       | 7,6            | 2     | MR 3I 50 - 14 × 160                        | 71 B | 4 | 31,2 |     |
|             | 44,9                       | 7,6            | 2,8   | MR 3I 51 - 14 × 160                        | 71 B | 4 | 31,2 |     |
|             | 48,8                       | 7              | 1,06  | MR 3I 40 - 14 × 160                        | 71 B | 4 | 28,7 |     |
|             | 48,8                       | 7              | 1,32  | MR 3I 41 - 14 × 160                        | 71 B | 4 | 28,7 |     |
|             | 49,3                       | 6,9            | 2,24  | MR 3I 50 - 14 × 160                        | 71 B | 4 | 28,4 |     |
|             | 49,3                       | 6,9            | 3,15  | MR 3I 51 - 14 × 160                        | 71 B | 4 | 28,4 |     |
|             | 53,9                       | 6,3            | 2,5   | MR 3I 50 - 14 × 160                        | 71 B | 4 | 26   |     |
|             | 57,5                       | 5,9            | 1,18  | MR 3I 40 - 14 × 160                        | 71 B | 4 | 24,4 |     |
|             | 57,5                       | 5,9            | 1,5   | MR 3I 41 - 14 × 160                        | 71 B | 4 | 24,4 |     |
|             | 62,4                       | 5,4            | 2,8   | MR 3I 50 - 14 × 160                        | 71 B | 4 | 22,4 |     |
|             | 62,8                       | 5,4            | 1,32  | MR 3I 40 - 14 × 160                        | 71 B | 4 | 22,3 |     |
|             | 62,8                       | 5,4            | 1,7   | MR 3I 41 - 14 × 160                        | 71 B | 4 | 22,3 |     |
|             | 62,9                       | 5,5            | 2,24  | MR 2I 50 - 14 × 160                        | 71 B | 4 | 22,3 |     |
|             | 67,7                       | 5,1            | 1,25  | MR 2I 40 - 14 × 160                        | 71 C | 6 | 13,3 |     |
|             | 67,7                       | 5,1            | 1,4   | MR 2I 41 - 14 × 160                        | 71 C | 6 | 13,3 |     |
|             | 69                         | 4,92           | 3,15  | MR 3I 50 - 14 × 160                        | 71 B | 4 | 20,3 |     |
|             | 73,7                       | 4,61           | 1,5   | MR 3I 40 - 14 × 160                        | 71 B | 4 | 19   |     |
|             | 73,7                       | 4,61           | 1,7   | MR 3I 41 - 14 × 160                        | 71 B | 4 | 19   |     |
|             | 76,5                       | 4,53           | 3     | MR 2I 50 - 14 × 160                        | 71 B | 4 | 18,3 |     |
|             | 76,6                       | 4,52           | 1,5   | MR 2I 40 - 14 × 160                        | 71 C | 6 | 11,8 |     |
|             | 76,6                       | 4,52           | 1,8   | MR 2I 41 - 14 × 160                        | 71 C | 6 | 11,8 |     |
|             | 85                         | 4,07           | 3,55  | MR 2I 50 - 14 × 160                        | 71 B | 4 | 16,5 |     |
|             | 85,2                       | 4,07           | 1,7   | MR 2I 40 - 14 × 160                        | 71 C | 6 | 10,6 |     |
|             | 85,2                       | 4,07           | 2,12  | MR 2I 41 - 14 × 160                        | 71 C | 6 | 10,6 |     |
|             | 86,4                       | 4,01           | 1,4   | MR 2I 40 - 14 × 160                        | 71 B | 4 | 16,2 |     |
|             | 92,2                       | 3,68           | 1,5   | MR 3I 40 - 14 × 160                        | 71 B | 4 | 15,2 |     |
|             | 93,9                       | 3,69           | 4     | MR 2I 50 - 14 × 160                        | 71 B | 4 | 14,9 |     |
|             | 102                        | 3,41           | 4     | MR 2I 50 - 14 × 160                        | 71 B | 4 | 13,8 |     |
|             | 104                        | 3,33           | 0,95  | MR 2I 32 - 11 × 140                        | 71 B | 4 | 13,5 |     |
|             | 105                        | 3,29           | 1,9   | MR 2I 40 - 14 × 160                        | 71 B | 4 | 13,3 |     |
|             | 105                        | 3,29           | 2,12  | MR 2I 41 - 14 × 160                        | 71 B | 4 | 13,3 |     |
|             | 112                        | 3,09           | 4,75  | MR 2I 50 - 14 × 160                        | 71 B | 4 | 12,5 |     |
|             | 119                        | 2,91           | 2,24  | MR 2I 40 - 14 × 160                        | 71 B | 4 | 11,8 |     |
|             | 119                        | 2,91           | 2,65  | MR 2I 41 - 14 × 160                        | 71 B | 4 | 11,8 |     |
|             | 130                        | 2,67           | 1,25  | MR 2I 32 - 11 × 140                        | 71 B | 4 | 10,8 |     |
|             | 133                        | 2,61           | 2,5   | MR 2I 40 - 14 × 160                        | 71 B | 4 | 10,6 |     |
|             | 146                        | 2,37           | 1,4   | MR 2I 32 - 11 × 140                        | 71 B | 4 | 9,57 |     |
|             | 149                        | 2,33           | 2,8   | MR 2I 40 - 14 × 160                        | 71 B | 4 | 9,41 |     |

1) Powers valid for continuous duty S1; **Increase** possible for S2 ... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.

2) For complete designation when ordering, see ch. 3.

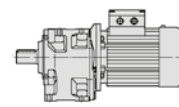
\* Mounting position **B5R** (see table ch. 2b).





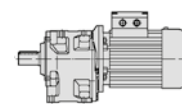
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |      |   |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------|---|---|------|
| 1)          |                            |                |       | 2)                                         |      |   |   |      |
| 0,37        | 172                        | 2,01           | 1,7   | MR 2I 32 - 11 × 140                        | 71 B | * | 4 | 8,12 |
|             | 175                        | 1,97           | 3,35  | MR 2I 40 - 14 × 160                        | 71 B |   | 4 | 7,98 |
|             | 191                        | 1,81           | 3,75  | MR 2I 40 - 14 × 160                        | 71 B |   | 4 | 7,32 |
|             | 192                        | 1,8            | 1,9   | MR 2I 32 - 11 × 140                        | 71 B | * | 4 | 7,29 |
|             | 208                        | 1,67           | 1,8   | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 13,5 |
|             | 221                        | 1,57           | 2,12  | MR 2I 32 - 11 × 140                        | 71 B | * | 4 | 6,33 |
|             | 225                        | 1,54           | 4,25  | MR 2I 40 - 14 × 160                        | 71 B |   | 4 | 6,22 |
|             | 259                        | 1,34           | 2,36  | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 10,8 |
|             | 277                        | 1,25           | 2,24  | MR 2I 32 - 11 × 140                        | 71 B | * | 4 | 5,06 |
|             | 282                        | 1,23           | 4,5   | MR 2I 40 - 14 × 160                        | 71 B |   | 4 | 4,97 |
|             | 293                        | 1,18           | 2,65  | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 9,57 |
|             | 345                        | 1              | 3,15  | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 8,12 |
|             | 384                        | 0,9            | 3,55  | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 7,29 |
|             | 442                        | 0,78           | 4     | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 6,33 |
|             | 554                        | 0,63           | 4,25  | MR 2I 32 - 11 × 140                        | 63 C |   | 2 | 5,06 |
| 0,55        | 7,13                       | 71             | 0,85  | MR 3I 80 - 19 × 200                        | 80 B |   | 6 | 126  |
|             | 7,13                       | 71             | 1,06  | MR 3I 81 - 19 × 200                        | 80 B |   | 6 | 126  |
|             | 8,9                        | 57             | 1,18  | MR 3I 80 - 19 × 200                        | 80 B |   | 6 | 101  |
|             | 8,9                        | 57             | 1,5   | MR 3I 81 - 19 × 200                        | 80 B |   | 6 | 101  |
|             | 9,08                       | 56             | 1     | MR 3I 80 - 19 × 200                        | 80 A |   | 4 | 154  |
|             | 10,6                       | 47,4           | 1,4   | MR 3I 80 - 19 × 200                        | 80 B |   | 6 | 84,6 |
|             | 10,6                       | 47,4           | 1,8   | MR 3I 81 - 19 × 200                        | 80 B |   | 6 | 84,6 |
|             | 11,1                       | 45,4           | 1,32  | MR 3I 80 - 19 × 200                        | 80 A |   | 4 | 126  |
|             | 11,1                       | 45,4           | 1,7   | MR 3I 81 - 19 × 200                        | 80 A |   | 4 | 126  |
|             | 12,1                       | 41,7           | 0,9   | MR 3I 64 - 19 × 200                        | 80 B |   | 6 | 74,3 |
|             | 12,6                       | 40,1           | 0,95  | MR 3I 64 - 14 × 160                        | 71 C |   | 4 | 111  |
|             | 13,8                       | 36,4           | 1,8   | MR 3I 80 - 19 × 200                        | 80 A |   | 4 | 101  |
|             | 13,8                       | 36,4           | 2,36  | MR 3I 81 - 19 × 200                        | 80 A |   | 4 | 101  |
|             | 14,7                       | 34,2           | 0,8   | MR 3I 63 - 19 × 200                        | 80 A |   | 4 | 94,9 |
|             | 15,1                       | 33,3           | 1     | MR 3I 63 - 19 × 200                        | 80 B |   | 6 | 59,5 |
|             | 15,1                       | 33,3           | 1,32  | MR 3I 64 - 19 × 200                        | 80 B |   | 6 | 59,5 |
|             | 15,7                       | 32,1           | 1,06  | MR 3I 63 - 14 × 160                        | 71 C |   | 4 | 89   |
|             | 15,7                       | 32,1           | 1,4   | MR 3I 64 - 14 × 160                        | 71 C |   | 4 | 89   |
|             | 16,5                       | 30,5           | 2,24  | MR 3I 80 - 19 × 200                        | 80 A |   | 4 | 84,6 |
|             | 16,5                       | 30,5           | 2,8   | MR 3I 81 - 19 × 200                        | 80 A |   | 4 | 84,6 |
|             | 18,1                       | 27,9           | 2,36  | MR 3I 80 - 19 × 200                        | 80 B |   | 6 | 49,8 |
|             | 18,4                       | 27,4           | 1,6   | MR 3I 64 - 19 × 200                        | 80 B |   | 6 | 48,9 |
|             | 18,8                       | 26,8           | 1,25  | MR 3I 63 - 14 × 160                        | 71 C |   | 4 | 74,5 |
|             | 18,8                       | 26,8           | 1,12  | MR 3I 63 - 19 × 200                        | 80 A |   | 4 | 74,3 |
|             | 18,8                       | 26,8           | 1,6   | MR 3I 64 - 14 × 160                        | 71 C |   | 4 | 74,5 |
|             | 18,8                       | 26,8           | 1,4   | MR 3I 64 - 19 × 200                        | 80 A |   | 4 | 74,3 |
|             | 19,7                       | 25,6           | 0,8   | MR 3I 51 - 19 × 200                        | 80 B |   | 6 | 45,7 |
|             | 20,4                       | 24,8           | 1,32  | MR 3I 63 - 19 × 200                        | 80 B |   | 6 | 44,2 |
|             | 20,4                       | 24,8           | 1,8   | MR 3I 64 - 19 × 200                        | 80 B |   | 6 | 44,2 |
|             | 21,1                       | 23,9           | 2,8   | MR 3I 80 - 19 × 200                        | 80 A |   | 4 | 66,3 |
|             | 22,1                       | 22,8           | 0,95  | MR 3I 51 - 14 × 160                        | 71 C |   | 4 | 63,2 |
|             | 22,5                       | 22,4           | 0,85  | MR 3I 51 - 19 × 200                        | 80 A |   | 4 | 62,2 |
|             | 22,8                       | 22,1           | 1,5   | MR 3I 63 - 14 × 160                        | 71 C |   | 4 | 61,3 |
|             | 22,8                       | 22,1           | 2     | MR 3I 64 - 14 × 160                        | 71 C |   | 4 | 61,3 |
|             | 23,5                       | 21,4           | 1,6   | MR 3I 63 - 19 × 200                        | 80 A |   | 4 | 59,5 |
|             | 23,5                       | 21,4           | 2     | MR 3I 64 - 19 × 200                        | 80 A |   | 4 | 59,5 |
|             | 23,8                       | 21,2           | 3,15  | MR 3I 80 - 19 × 200                        | 80 A |   | 4 | 58,7 |
|             | 23,9                       | 21,1           | 1,06  | MR 3I 51 - 19 × 200                        | 80 B |   | 6 | 37,7 |
|             | 24,5                       | 20,6           | 1     | MR 3I 51 - 14 × 160                        | 71 C |   | 4 | 57,1 |
|             | 25                         | 20,1           | 1     | MR 3I 51 - 19 × 200                        | 80 A |   | 4 | 55,9 |
|             | 25,3                       | 20             | 1,7   | MR 3I 63 - 14 × 160                        | 71 C |   | 4 | 55,4 |
|             | 25,3                       | 20             | 2,24  | MR 3I 64 - 14 × 160                        | 71 C |   | 4 | 55,4 |
|             | 25,7                       | 19,6           | 1,6   | MR 3I 63 - 19 × 200                        | 80 A |   | 4 | 54,5 |
|             | 25,7                       | 19,6           | 2,12  | MR 3I 64 - 19 × 200                        | 80 A |   | 4 | 54,5 |
|             | 26,1                       | 19,3           | 1,18  | MR 3I 51 - 19 × 200                        | 80 B |   | 6 | 34,5 |
|             | 27,1                       | 18,6           | 0,85  | MR 3I 50 - 14 × 160                        | 71 C |   | 4 | 51,7 |
|             | 27,1                       | 18,6           | 1,18  | MR 3I 51 - 14 × 160                        | 71 C |   | 4 | 51,7 |
|             | 27,6                       | 18,2           | 0,85  | MR 3I 50 - 19 × 200                        | 80 A |   | 4 | 50,6 |
|             | 27,6                       | 18,2           | 1,18  | MR 3I 51 - 19 × 200                        | 80 A |   | 4 | 50,6 |
|             | 27,8                       | 18,1           | 1,8   | MR 3I 63 - 14 × 160                        | 71 C |   | 4 | 50,4 |
|             | 27,8                       | 18,1           | 2,5   | MR 3I 64 - 14 × 160                        | 71 C |   | 4 | 50,4 |
|             | 28,6                       | 17,6           | 1,9   | MR 3I 63 - 19 × 200                        | 80 A |   | 4 | 48,9 |
|             | 28,6                       | 17,6           | 2,5   | MR 3I 64 - 19 × 200                        | 80 A |   | 4 | 48,9 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$               | Riduttore - Motore<br>Gear reducer - Motor |      |   |   |      |      | $i$ |
|-------------|----------------------------|----------------|---------------------|--------------------------------------------|------|---|---|------|------|-----|
| 1)          |                            |                |                     | 2)                                         |      |   |   |      |      |     |
| 0,55        | 29,7                       | 17             | 0,95                | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 47,1 |     |
|             | 29,7                       | 17             | 1,32                | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 47,1 |     |
|             | 30,2                       | 16,7           | 0,95                | MR 3I 50 - 19 × 200                        | 80 B |   |   | 6    | 29,8 |     |
|             | 30,2                       | 16,7           | 1,32                | MR 3I 51 - 19 × 200                        | 80 B |   |   | 6    | 29,8 |     |
|             | 30,2                       | 16,7           | 1,9                 | MR 3I 63 - 14 × 160                        | 71 C |   |   | 4    | 46,3 |     |
|             | 30,2                       | 16,7           | 2,36                | MR 3I 64 - 14 × 160                        | 71 C |   |   | 4    | 46,3 |     |
|             | 30,6                       | 16,5           | 0,9                 | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 45,7 |     |
|             | 30,6                       | 16,5           | 1,25                | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 45,7 |     |
|             | 31,7                       | 15,9           | 2,12                | MR 3I 63 - 19 × 200                        | 80 A |   |   | 4    | 44,2 |     |
|             | 31,7                       | 15,9           | 2,8                 | MR 3I 64 - 19 × 200                        | 80 A |   |   | 4    | 44,2 |     |
|             | 32,5                       | 15,5           | 1                   | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 43,1 |     |
|             | 32,5                       | 15,5           | 1,4                 | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 43,1 |     |
|             | 33,7                       | 15             | 2,24                | MR 3I 63 - 14 × 160                        | 71 C |   |   | 4    | 41,6 |     |
|             | 33,7                       | 15             | 2,8                 | MR 3I 64 - 14 × 160                        | 71 C |   |   | 4    | 41,6 |     |
|             | 33,8                       | 14,9           | 1,06                | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 41,4 |     |
|             | 33,8                       | 14,9           | 1,4                 | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 41,4 |     |
|             | 34,8                       | 14,5           | 2,24                | MR 3I 63 - 19 × 200                        | 80 A |   |   | 4    | 40,2 |     |
|             | 34,8                       | 14,5           | 3                   | MR 3I 64 - 19 × 200                        | 80 A |   |   | 4    | 40,2 |     |
|             | 37,1                       | 13,6           | 1,12                | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 37,7 |     |
|             | 37,1                       | 13,6           | 1,6                 | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 37,7 |     |
|             | 37,1                       | 13,9           | 1,9                 | MR 2I 63 - 19 × 200                        | 80 B |   |   | 6    | 24,3 |     |
|             | 37,3                       | 13,5           | 2,36                | MR 3I 63 - 14 × 160                        | 71 C |   |   | 4    | 37,6 |     |
|             | 37,6                       | 13,4           | 1,18                | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 37,2 |     |
|             | 37,6                       | 13,4           | 1,7                 | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 37,2 |     |
|             | 37,9                       | 13,3           | 2,36                | MR 3I 63 - 19 × 200                        | 80 A |   |   | 4    | 36,9 |     |
|             | 40,4                       | 12,7           | 1                   | MR 2I 50 - 14 × 160                        | 80 B | * |   | 6    | 22,3 |     |
|             | 40,6                       | 12,4           | 1,25                | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 34,5 |     |
|             | 40,6                       | 12,4           | 1,8                 | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 34,5 |     |
|             | 41                         | 12,3           | 2,65                | MR 3I 63 - 14 × 160                        | 71 C |   |   | 4    | 34,2 |     |
|             | 42,2                       | 11,9           | 2,65                | MR 3I 63 - 19 × 200                        | 80 A |   |   | 4    | 33,2 |     |
|             | 43,3                       | 11,6           | 1,32                | MR 3I 50 - 19 × 200                        | 80 B |   |   | 6    | 20,8 |     |
|             | 43,3                       | 11,6           | 1,9                 | MR 3I 51 - 19 × 200                        | 80 B |   |   | 6    | 20,8 |     |
|             | 44,9                       | 11,2           | 1,4                 | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 31,2 |     |
|             | 44,9                       | 11,2           | 1,9                 | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 31,2 |     |
|             | 46,7                       | 10,8           | 3                   | MR 3I 63 - 19 × 200                        | 80 A |   |   | 4    | 30   |     |
|             | 47                         | 10,7           | 1,5                 | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 29,8 |     |
|             | 47                         | 10,7           | 2                   | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 29,8 |     |
|             | 47,4                       | 10,9           | 2,65                | MR 2I 63 - 19 × 200                        | 80 B |   |   | 6    | 19   |     |
|             | 48,8                       | 10,3           | 0,9                 | MR 3I 41 - 14 × 160                        | 71 C |   |   | 4    | 28,7 |     |
|             | 49,2                       | 10,5           | 1,32                | MR 2I 50 - 14 × 160                        | 80 B | * |   | 6    | 18,3 |     |
|             | 49,2                       | 10,5           | 1,7                 | MR 2I 51 - 14 × 160                        | 80 B | * |   | 6    | 18,3 |     |
|             | 49,3                       | 10,2           | 1,5                 | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 28,4 |     |
|             | 49,3                       | 10,2           | 2,12                | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 28,4 |     |
|             | 50,1                       | 10,1           | 1,5                 | MR 3I 50 - 19 × 200                        | 80 B |   |   | 6    | 18   |     |
|             | 50,1                       | 10,1           | 2,12                | MR 3I 51 - 19 × 200                        | 80 B |   |   | 6    | 18   |     |
|             | 53,9                       | 9,3            | 1,6                 | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 26   |     |
|             | 53,9                       | 9,3            | 2,36                | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 26   |     |
|             | 54,7                       | 9,4            | 1,5                 | MR 2I 50 - 14 × 160                        | 80 B | * |   | 6    | 16,5 |     |
|             | 54,7                       | 9,4            | 2,12                | MR 2I 51 - 14 × 160                        | 80 B | * |   | 6    | 16,5 |     |
|             | 56,1                       | 9              | 1,7                 | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 25   |     |
|             | 56,1                       | 9              | 2,36                | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 25   |     |
|             | 57,5                       | 8,8            | 0,8                 | MR 3I 40 - 14 × 160                        | 71 C |   |   | 4    | 24,4 |     |
|             | 57,5                       | 8,8            | 1,06                | MR 3I 41 - 14 × 160                        | 71 C |   |   | 4    | 24,4 |     |
|             | 57,7                       | 8,9            | 2,8                 | MR 2I 63 - 19 × 200                        | 80 A |   |   | 4    | 24,3 |     |
|             | 60,4                       | 8,5            | 1,8                 | MR 2I 50 - 14 × 160                        | 80 B | * |   | 6    | 14,9 |     |
|             | 60,4                       | 8,5            | 2,36                | MR 2I 51 - 14 × 160                        | 80 B | * |   | 6    | 14,9 |     |
|             | 60,5                       | 8,5            | 1,5                 | MR 2I 50 - 19 × 200                        | 80 B |   |   | 6    | 14,9 |     |
|             | 61,6                       | 8,2            | 1,8                 | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 22,7 |     |
|             | 61,6                       | 8,2            | 2,65                | MR 3I 51 - 19 × 200                        | 80 A |   |   | 4    | 22,7 |     |
|             | 62,4                       | 8,1            | 1,9                 | MR 3I 50 - 14 × 160                        | 71 C |   |   | 4    | 22,4 |     |
|             | 62,4                       | 8,1            | 2,65                | MR 3I 51 - 14 × 160                        | 71 C |   |   | 4    | 22,4 |     |
|             | 62,8                       | 8              | 0,9                 | MR 3I 40 - 14 × 160                        | 71 C |   |   | 4    | 22,3 |     |
|             | 62,8                       | 8              | 1,12                | MR 3I 41 - 14 × 160                        | 71 C |   |   | 4    | 22,3 |     |
|             | 62,9                       | 8,2            | 1,5                 | MR 2I 50 - 14 × 160                        | 71 C |   |   | 4    | 22,3 |     |
|             | 65,3                       | 7,9            | 1,8                 | MR 2I 50 - 14 × 160                        | 80 B | * |   | 6    | 13,8 |     |
|             | 65,3                       | 7,9            | 2,5                 | MR 2I 51 - 14 × 160                        | 80 B | * |   | 6    | 13,8 |     |
|             | 67,4                       | 7,5            | 2                   | MR 3I 50 - 19 × 200                        | 80 A |   |   | 4    | 20,8 |     |
| 67,4        | 7,5                        | 2,8            | MR 3I 51 - 19 × 200 | 80 A                                       |      |   | 4 | 20,8 |      |     |
| 67,7        | 7,6                        | 0,85           | MR 2I 40 - 14 × 160 | 80 B                                       | *    |   | 6 | 13,3 |      |     |
| 67,7        | 7,6                        | 0,95           | MR 2I 41 - 14 × 160 | 80 B                                       | *    |   | 6 | 13,3 |      |     |
| 69          | 7,3                        | 2,12           | MR 3I 50 - 14 × 160 | 71 C                                       |      |   | 4 | 20,3 |      |     |
| 69          | 7,3                        | 3              | MR 3I 51 - 14 × 160 | 71 C                                       |      |   | 4 | 20,3 |      |     |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |                |      |     | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|----------------|------|-----|------|
| 1)          |                            |                |       | 2)                                         |                |      |     |      |
| 0,55        | 73,6                       | 7              | 1,9   | MR 21                                      | 50 - 19 × 200  | 80 B | 6   | 12,2 |
|             | 73,6                       | 7              | 2,5   | MR 21                                      | 51 - 19 × 200  | 80 B | 6   | 12,2 |
|             | 73,7                       | 6,8            | 1     | MR 31                                      | 40 - 14 × 160  | 71 C | 4   | 19   |
|             | 73,7                       | 6,8            | 1,18  | MR 31                                      | 41 - 14 × 160  | 71 C | 4   | 19   |
|             | 76,5                       | 6,7            | 2     | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 18,3 |
|             | 76,5                       | 6,7            | 2,65  | MR 21                                      | 51 - 14 × 160  | 71 C | 4   | 18,3 |
|             | 76,6                       | 6,7            | 1     | MR 21                                      | 40 - 14 × 160  | 80 B | * 6 | 11,8 |
|             | 76,6                       | 6,7            | 1,18  | MR 21                                      | 41 - 14 × 160  | 80 B | * 6 | 11,8 |
|             | 77,9                       | 6,5            | 2,36  | MR 31                                      | 50 - 19 × 200  | 80 A | 4   | 18   |
|             | 77,9                       | 6,5            | 3,35  | MR 31                                      | 51 - 19 × 200  | 80 A | 4   | 18   |
|             | 85                         | 6,1            | 2,36  | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 16,5 |
|             | 85                         | 6,1            | 3,15  | MR 21                                      | 51 - 14 × 160  | 71 C | 4   | 16,5 |
|             | 85,2                       | 6              | 1,12  | MR 21                                      | 40 - 14 × 160  | 80 B | * 6 | 10,6 |
|             | 85,2                       | 6              | 1,4   | MR 21                                      | 41 - 14 × 160  | 80 B | * 6 | 10,6 |
|             | 86,1                       | 5,9            | 2,65  | MR 31                                      | 50 - 19 × 200  | 80 A | 4   | 16,3 |
|             | 86,4                       | 6              | 0,95  | MR 31                                      | 40 - 14 × 160  | 71 C | 4   | 16,2 |
|             | 92,2                       | 5,5            | 1     | MR 31                                      | 40 - 14 × 160  | 71 C | 4   | 15,2 |
|             | 93,9                       | 5,5            | 2,65  | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 14,9 |
|             | 94,2                       | 5,5            | 2,24  | MR 21                                      | 50 - 19 × 200  | 80 A | 4   | 14,9 |
|             | 95,6                       | 5,4            | 1,6   | MR 21                                      | 41 - 14 × 160  | 80 B | * 6 | 9,41 |
|             | 102                        | 5,1            | 2,8   | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 13,8 |
|             | 105                        | 4,89           | 1,32  | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 13,3 |
|             | 105                        | 4,89           | 1,4   | MR 21                                      | 41 - 14 × 160  | 71 C | 4   | 13,3 |
|             | 112                        | 4,59           | 3,15  | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 12,5 |
|             | 113                        | 4,56           | 1,5   | MR 21                                      | 40 - 14 × 160  | 80 B | * 6 | 7,98 |
|             | 113                        | 4,56           | 1,9   | MR 21                                      | 41 - 14 × 160  | 80 B | * 6 | 7,98 |
|             | 114                        | 4,5            | 3     | MR 21                                      | 50 - 19 × 200  | 80 A | 4   | 12,2 |
|             | 119                        | 4,32           | 1,5   | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 11,8 |
|             | 119                        | 4,32           | 1,8   | MR 21                                      | 41 - 14 × 160  | 71 C | 4   | 11,8 |
|             | 123                        | 4,19           | 2,12  | MR 21                                      | 41 - 14 × 160  | 80 B | * 6 | 7,32 |
|             | 123                        | 4,18           | 3,35  | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 11,4 |
|             | 127                        | 4,04           | 3,35  | MR 21                                      | 50 - 19 × 200  | 80 A | 4   | 11   |
|             | 130                        | 3,97           | 0,85  | MR 21                                      | 32 - 11 × 140  | 71 C | * 4 | 10,8 |
|             | 133                        | 3,88           | 1,7   | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 10,6 |
|             | 133                        | 3,88           | 2,12  | MR 21                                      | 41 - 14 × 160  | 71 C | 4   | 10,6 |
|             | 135                        | 3,82           | 3,75  | MR 21                                      | 50 - 14 × 160  | 71 C | 4   | 10,4 |
|             | 141                        | 3,66           | 3,75  | MR 21                                      | 50 - 19 × 200  | 80 A | 4   | 9,96 |
|             | 146                        | 3,52           | 0,95  | MR 21                                      | 32 - 11 × 140  | 71 C | * 4 | 9,57 |
|             | 149                        | 3,46           | 1,9   | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 9,41 |
|             | 149                        | 3,46           | 2,5   | MR 21                                      | 41 - 14 × 160  | 71 C | 4   | 9,41 |
|             | 154                        | 3,33           | 4,25  | MR 21                                      | 50 - 19 × 200  | 80 A | 4   | 9,07 |
|             | 172                        | 2,98           | 1,12  | MR 21                                      | 32 - 11 × 140  | 71 C | * 4 | 8,12 |
|             | 175                        | 2,93           | 2,24  | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 7,98 |
|             | 175                        | 2,93           | 2,8   | MR 21                                      | 41 - 14 × 160  | 71 C | 4   | 7,98 |
|             | 191                        | 2,69           | 2,5   | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 7,32 |
|             | 191                        | 2,69           | 3,15  | MR 21                                      | 41 - 14 × 160  | 71 C | 4   | 7,32 |
|             | 192                        | 2,68           | 1,25  | MR 21                                      | 32 - 11 × 140  | 71 C | * 4 | 7,29 |
|             | 208                        | 2,48           | 1,25  | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 13,5 |
|             | 221                        | 2,33           | 1,4   | MR 21                                      | 32 - 11 × 140  | 71 C | * 4 | 6,33 |
|             | 225                        | 2,29           | 3     | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 6,22 |
|             | 259                        | 1,98           | 1,6   | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 10,8 |
|             | 277                        | 1,86           | 1,5   | MR 21                                      | 32 - 11 × 140  | 71 C | * 4 | 5,06 |
|             | 282                        | 1,83           | 3     | MR 21                                      | 40 - 14 × 160  | 71 C | 4   | 4,97 |
|             | 293                        | 1,76           | 1,8   | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 9,57 |
|             | 345                        | 1,49           | 2,12  | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 8,12 |
|             | 351                        | 1,47           | 4,25  | MR 21                                      | 40 - 14 × 160  | 71 B | 2   | 7,98 |
|             | 383                        | 1,35           | 4,75  | MR 21                                      | 40 - 14 × 160  | 71 B | 2   | 7,32 |
|             | 384                        | 1,34           | 2,36  | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 7,29 |
|             | 442                        | 1,16           | 2,8   | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 6,33 |
|             | 450                        | 1,14           | 5,6   | MR 21                                      | 40 - 14 × 160  | 71 B | 2   | 6,22 |
|             | 554                        | 0,93           | 2,8   | MR 21                                      | 32 - 11 × 140  | 71 B | * 2 | 5,06 |
|             | 563                        | 0,91           | 6     | MR 21                                      | 40 - 14 × 160  | 71 B | 2   | 4,97 |
| 0,75        | 6,27                       | 110            | 1     | MR 31                                      | 100 - 24 × 200 | 90 S | 6   | 144  |
|             | 7,13                       | 96             | 0,8   | MR 31                                      | 81 - 19 × 200  | 80 C | 6   | 126  |
|             | 7,62                       | 90             | 1,32  | MR 31                                      | 100 - 24 × 200 | 90 S | 6   | 118  |
|             | 7,62                       | 90             | 1,7   | MR 31                                      | 101 - 24 × 200 | 90 S | 6   | 118  |
|             | 8,9                        | 77             | 0,85  | MR 31                                      | 80 - 19 × 200  | 80 C | 6   | 101  |
|             | 8,9                        | 77             | 1,12  | MR 31                                      | 81 - 19 × 200  | 80 C | 6   | 101  |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |                |      |      | $i$  |      |
|-------------|----------------------------|----------------|-------|--------------------------------------------|----------------|------|------|------|------|
| 1)          | 2)                         |                |       |                                            |                |      |      |      |      |
| 0,75        | 9,36                       | 73             | 1,8   | MR 3I                                      | 100 - 24 × 200 | 90 S | 6    | 96,2 |      |
|             | 9,36                       | 73             | 2,36  | MR 3I                                      | 101 - 24 × 200 | 90 S | 6    | 96,2 |      |
|             | 11,1                       | 62             | 1     | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 126  |      |
|             | 11,1                       | 62             | 1,18  | MR 3I                                      | 81 - 19 × 200  | 80 B | 4    | 126  |      |
|             | 11,5                       | 60             | 2,24  | MR 3I                                      | 100 - 24 × 200 | 90 S | 6    | 77,9 |      |
|             | 11,5                       | 60             | 3     | MR 3I                                      | 101 - 24 × 200 | 90 S | 6    | 77,9 |      |
|             | 13,8                       | 49,6           | 1,32  | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 101  |      |
|             | 13,8                       | 49,6           | 1,8   | MR 3I                                      | 81 - 19 × 200  | 80 B | 4    | 101  |      |
|             | 14,1                       | 48,7           | 2,65  | MR 3I                                      | 100 - 24 × 200 | 90 S | 6    | 63,8 |      |
|             | 16,5                       | 41,6           | 0,8   | MR 3I                                      | 63 - 19 × 200  | 80 C | 6    | 54,5 |      |
|             | 16,5                       | 41,6           | 1     | MR 3I                                      | 64 - 19 × 200  | 80 C | 6    | 54,5 |      |
|             | 16,5                       | 41,6           | 1,6   | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 84,6 |      |
|             | 16,5                       | 41,6           | 2,12  | MR 3I                                      | 81 - 19 × 200  | 80 B | 4    | 84,6 |      |
|             | 17                         | 40,6           | 3,35  | MR 3I                                      | 100 - 24 × 200 | 90 S | 6    | 53,1 |      |
|             | 18,1                       | 38,1           | 1,8   | MR 3I                                      | 80 - 19 × 200  | 80 C | 6    | 49,8 |      |
|             | 18,1                       | 38,1           | 2,36  | MR 3I                                      | 81 - 19 × 200  | 80 C | 6    | 49,8 |      |
|             | 18,4                       | 37,4           | 1,18  | MR 3I                                      | 64 - 19 × 200  | 80 C | 6    | 48,9 |      |
|             | 18,8                       | 36,5           | 0,85  | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 74,3 |      |
|             | 18,8                       | 36,5           | 1     | MR 3I                                      | 64 - 19 × 200  | 80 B | 4    | 74,3 |      |
|             | 19,2                       | 35,8           | 0,95  | MR 3I                                      | 63 - 24 × 200  | 90 S | 6    | 46,9 |      |
|             | 19,2                       | 35,8           | 1,25  | MR 3I                                      | 64 - 24 × 200  | 90 S | 6    | 46,9 |      |
|             | 20,4                       | 33,8           | 1     | MR 3I                                      | 63 - 19 × 200  | 80 C | 6    | 44,2 |      |
|             | 20,4                       | 33,8           | 1,32  | MR 3I                                      | 64 - 19 × 200  | 80 C | 6    | 44,2 |      |
|             | 21,1                       | 32,6           | 2     | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 66,3 |      |
|             | 21,1                       | 32,6           | 2,65  | MR 3I                                      | 81 - 19 × 200  | 80 B | 4    | 66,3 |      |
|             | 23,3                       | 29,5           | 2,24  | MR 3I                                      | 80 - 19 × 200  | 80 C | 6    | 38,6 |      |
|             | 23,5                       | 29,2           | 1,12  | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 59,5 |      |
|             | 23,5                       | 29,2           | 1,5   | MR 3I                                      | 64 - 19 × 200  | 80 B | 4    | 59,5 |      |
|             | 23,8                       | 28,9           | 2,36  | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 58,7 |      |
|             | 23,8                       | 28,9           | 3,15  | MR 3I                                      | 81 - 19 × 200  | 80 B | 4    | 58,7 |      |
|             | 25,7                       | 26,8           | 1,18  | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 54,5 |      |
|             | 25,7                       | 26,8           | 1,5   | MR 3I                                      | 64 - 19 × 200  | 80 B | 4    | 54,5 |      |
|             | 25,8                       | 26,6           | 1,7   | MR 3I                                      | 64 - 24 × 200  | 90 S | 6    | 34,8 |      |
|             | 26,1                       | 26,3           | 0,85  | MR 3I                                      | 51 - 19 × 200  | 80 C | 6    | 34,5 |      |
|             | 27,6                       | 24,9           | 0,85  | MR 3I                                      | 51 - 19 × 200  | 80 B | 4    | 50,6 |      |
|             | 28,1                       | 24,5           | 2,8   | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 49,8 |      |
|             | 28,6                       | 24             | 1,4   | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 48,9 |      |
|             | 28,6                       | 24             | 1,8   | MR 3I                                      | 64 - 19 × 200  | 80 B | 4    | 48,9 |      |
|             | 29,7                       | 23,1           | 0,95  | MR 3I                                      | 51 - 14 × 160  | 80 B | *    | 4    | 47,1 |
|             | 30,6                       | 22,5           | 0,9   | MR 3I                                      | 51 - 19 × 200  | 80 B | 4    | 45,7 |      |
|             | 31,7                       | 21,7           | 1,5   | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 44,2 |      |
|             | 31,7                       | 21,7           | 2     | MR 3I                                      | 64 - 19 × 200  | 80 B | 4    | 44,2 |      |
|             | 32,1                       | 21,4           | 3     | MR 3I                                      | 80 - 19 × 200  | 80 B | 4    | 43,6 |      |
|             | 32,5                       | 21,2           | 1,06  | MR 3I                                      | 51 - 14 × 160  | 80 B | *    | 4    | 43,1 |
|             | 33,8                       | 20,3           | 1,06  | MR 3I                                      | 51 - 19 × 200  | 80 B | 4    | 41,4 |      |
|             | 34,8                       | 19,7           | 1,7   | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 40,2 |      |
|             | 34,8                       | 19,7           | 2,24  | MR 3I                                      | 64 - 19 × 200  | 80 B | 4    | 40,2 |      |
|             | 37,1                       | 18,5           | 0,85  | MR 3I                                      | 50 - 19 × 200  | 80 B | 4    | 37,7 |      |
|             | 37,1                       | 18,5           | 1,18  | MR 3I                                      | 51 - 19 × 200  | 80 B | 4    | 37,7 |      |
|             | 37,9                       | 18,1           | 1,7   | MR 3I                                      | 63 - 19 × 200  | 80 B | 4    | 36,9 |      |
| 37,9        | 18,1                       | 2,24           | MR 3I | 64 - 19 × 200                              | 80 B           | 4    | 36,9 |      |      |
| 40,6        | 16,9                       | 0,9            | MR 3I | 50 - 19 × 200                              | 80 B           | 4    | 34,5 |      |      |
| 40,6        | 16,9                       | 1,32           | MR 3I | 51 - 19 × 200                              | 80 B           | 4    | 34,5 |      |      |
| 42,2        | 16,3                       | 2              | MR 3I | 63 - 19 × 200                              | 80 B           | 4    | 33,2 |      |      |
| 42,2        | 16,3                       | 2,65           | MR 3I | 64 - 19 × 200                              | 80 B           | 4    | 33,2 |      |      |
| 46,7        | 14,7                       | 2,24           | MR 3I | 63 - 19 × 200                              | 80 B           | 4    | 30   |      |      |
| 46,7        | 14,7                       | 3              | MR 3I | 64 - 19 × 200                              | 80 B           | 4    | 30   |      |      |
| 47          | 14,6                       | 1,06           | MR 3I | 50 - 19 × 200                              | 80 B           | 4    | 29,8 |      |      |
| 47          | 14,6                       | 1,5            | MR 3I | 51 - 19 × 200                              | 80 B           | 4    | 29,8 |      |      |
| 49,3        | 13,9                       | 1,12           | MR 3I | 50 - 14 × 160                              | 80 B           | *    | 4    | 28,4 |      |
| 49,3        | 13,9                       | 1,5            | MR 3I | 51 - 14 × 160                              | 80 B           | *    | 4    | 28,4 |      |
| 51,4        | 13,4                       | 2,36           | MR 3I | 63 - 19 × 200                              | 80 B           | 4    | 27,2 |      |      |
| 51,4        | 13,4                       | 3,15           | MR 3I | 64 - 19 × 200                              | 80 B           | 4    | 27,2 |      |      |
| 56,1        | 12,3                       | 1,25           | MR 3I | 50 - 19 × 200                              | 80 B           | 4    | 25   |      |      |
| 56,1        | 12,3                       | 1,7            | MR 3I | 51 - 19 × 200                              | 80 B           | 4    | 25   |      |      |
| 57,7        | 12,2                       | 2,12           | MR 2I | 63 - 19 × 200                              | 80 B           | 4    | 24,3 |      |      |
| 60          | 11,5                       | 2,8            | MR 3I | 63 - 19 × 200                              | 80 B           | 4    | 23,3 |      |      |
| 60,5        | 11,6                       | 1,06           | MR 2I | 50 - 19 × 200                              | 80 C           | 6    | 14,9 |      |      |
| 61,6        | 11,2                       | 1,32           | MR 3I | 50 - 19 × 200                              | 80 B           | 4    | 22,7 |      |      |
| 61,6        | 11,2                       | 1,9            | MR 3I | 51 - 19 × 200                              | 80 B           | 4    | 22,7 |      |      |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |      |      | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|------|------|------|
| 1)          |                            |                |       | 2)                                         |            |      |      |      |
| 0,75        | 66,7                       | 10,3           | 3,15  | MR 3I 63                                   | - 19 × 200 | 80 B | 4    | 21   |
|             | 67,4                       | 10,2           | 1,5   | MR 3I 50                                   | - 19 × 200 | 80 B | 4    | 20,8 |
|             | 67,4                       | 10,2           | 2,12  | MR 3I 51                                   | - 19 × 200 | 80 B | 4    | 20,8 |
|             | 73,6                       | 9,5            | 1,4   | MR 2I 50                                   | - 19 × 200 | 80 C | 6    | 12,2 |
|             | 73,6                       | 9,5            | 1,9   | MR 2I 51                                   | - 19 × 200 | 80 C | 6    | 12,2 |
|             | 73,7                       | 9,5            | 3     | MR 2I 63                                   | - 19 × 200 | 80 B | 4    | 19   |
|             | 76,8                       | 9,1            | 1,32  | MR 2I 50                                   | - 24 × 200 | 90 S | 6    | 11,7 |
|             | 77,9                       | 8,8            | 1,7   | MR 3I 50                                   | - 19 × 200 | 80 B | 4    | 18   |
|             | 77,9                       | 8,8            | 2,36  | MR 3I 51                                   | - 19 × 200 | 80 B | 4    | 18   |
|             | 81,8                       | 8,6            | 1,6   | MR 2I 50                                   | - 19 × 200 | 80 C | 6    | 11   |
|             | 81,8                       | 8,6            | 2,24  | MR 2I 51                                   | - 19 × 200 | 80 C | 6    | 11   |
|             | 82,7                       | 8,5            | 3,55  | MR 2I 63                                   | - 19 × 200 | 80 B | 4    | 16,9 |
|             | 85,2                       | 8,2            | 0,85  | MR 2I 41                                   | - 19 × 160 | 80 C | ** 6 | 10,6 |
|             | 86,1                       | 8              | 1,9   | MR 3I 50                                   | - 19 × 200 | 80 B | 4    | 16,3 |
|             | 86,1                       | 8              | 2,65  | MR 3I 51                                   | - 19 × 200 | 80 B | 4    | 16,3 |
|             | 90,4                       | 7,8            | 1,9   | MR 2I 50                                   | - 19 × 200 | 80 C | 6    | 9,96 |
|             | 93,4                       | 7,5            | 1,8   | MR 2I 50                                   | - 24 × 200 | 90 S | 6    | 9,64 |
|             | 93,4                       | 7,5            | 2,36  | MR 2I 51                                   | - 24 × 200 | 90 S | 6    | 9,64 |
|             | 94,2                       | 7,5            | 1,6   | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 14,9 |
|             | 99,3                       | 7,1            | 2,12  | MR 2I 50                                   | - 19 × 200 | 80 C | 6    | 9,07 |
|             | 99,3                       | 7,1            | 3     | MR 2I 51                                   | - 19 × 200 | 80 C | 6    | 9,07 |
|             | 104                        | 6,8            | 2     | MR 2I 50                                   | - 24 × 200 | 90 S | 6    | 8,67 |
|             | 104                        | 6,8            | 2,8   | MR 2I 51                                   | - 24 × 200 | 90 S | 6    | 8,67 |
|             | 105                        | 6,7            | 0,95  | MR 2I 40                                   | - 14 × 160 | 80 B | * 4  | 13,3 |
|             | 105                        | 6,7            | 1,06  | MR 2I 41                                   | - 14 × 160 | 80 B | * 4  | 13,3 |
|             | 106                        | 6,6            | 1,06  | MR 2I 40                                   | - 19 × 160 | 80 C | ** 6 | 8,46 |
|             | 106                        | 6,6            | 1,25  | MR 2I 41                                   | - 19 × 160 | 80 C | ** 6 | 8,46 |
|             | 108                        | 6,5            | 0,85  | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 12,9 |
|             | 114                        | 6,1            | 2,12  | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 12,2 |
|             | 114                        | 6,1            | 2,8   | MR 2I 51                                   | - 19 × 200 | 80 B | 4    | 12,2 |
|             | 119                        | 5,9            | 1,12  | MR 2I 40                                   | - 14 × 160 | 80 B | * 4  | 11,8 |
|             | 119                        | 5,9            | 1,32  | MR 2I 41                                   | - 14 × 160 | 80 B | * 4  | 11,8 |
|             | 120                        | 5,8            | 1,5   | MR 2I 41                                   | - 19 × 160 | 80 C | ** 6 | 7,5  |
|             | 127                        | 5,5            | 2,5   | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 11   |
|             | 133                        | 5,3            | 1,25  | MR 2I 40                                   | - 14 × 160 | 80 B | * 4  | 10,6 |
|             | 133                        | 5,3            | 1,18  | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 10,6 |
|             | 133                        | 5,3            | 1,6   | MR 2I 41                                   | - 14 × 160 | 80 B | * 4  | 10,6 |
|             | 133                        | 5,3            | 1,32  | MR 2I 41                                   | - 19 × 160 | 80 B | ** 4 | 10,6 |
|             | 141                        | 4,99           | 2,8   | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 9,96 |
|             | 149                        | 4,72           | 1,4   | MR 2I 40                                   | - 14 × 160 | 80 B | * 4  | 9,41 |
|             | 149                        | 4,72           | 1,4   | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 9,41 |
|             | 149                        | 4,72           | 1,8   | MR 2I 41                                   | - 14 × 160 | 80 B | * 4  | 9,41 |
|             | 149                        | 4,72           | 1,6   | MR 2I 41                                   | - 19 × 160 | 80 B | ** 4 | 9,41 |
|             | 154                        | 4,55           | 3,15  | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 9,07 |
|             | 165                        | 4,24           | 1,6   | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 8,46 |
|             | 165                        | 4,24           | 1,9   | MR 2I 41                                   | - 19 × 160 | 80 B | ** 4 | 8,46 |
|             | 169                        | 4,16           | 3,35  | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 8,29 |
|             | 175                        | 4              | 1,7   | MR 2I 40                                   | - 14 × 160 | 80 B | * 4  | 7,98 |
|             | 175                        | 4              | 2,12  | MR 2I 41                                   | - 14 × 160 | 80 B | * 4  | 7,98 |
|             | 187                        | 3,76           | 1,8   | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 7,5  |
|             | 187                        | 3,76           | 2,24  | MR 2I 41                                   | - 19 × 160 | 80 B | ** 4 | 7,5  |
|             | 195                        | 3,59           | 4     | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 7,17 |
|             | 216                        | 3,25           | 4,25  | MR 2I 50                                   | - 19 × 200 | 80 B | 4    | 6,49 |
|             | 220                        | 3,19           | 2,12  | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 6,36 |
|             | 220                        | 3,19           | 2,65  | MR 2I 41                                   | - 19 × 160 | 80 B | ** 4 | 6,36 |
|             | 240                        | 2,92           | 2,24  | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 5,83 |
|             | 240                        | 2,92           | 2,8   | MR 2I 41                                   | - 19 × 160 | 80 B | ** 4 | 5,83 |
|             | 259                        | 2,71           | 1,18  | MR 2I 32                                   | - 11 × 140 | 71 C | * 2  | 10,8 |
|             | 282                        | 2,49           | 2,65  | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 4,96 |
|             | 293                        | 2,4            | 1,32  | MR 2I 32                                   | - 11 × 140 | 71 C | * 2  | 9,57 |
|             | 345                        | 2,04           | 1,6   | MR 2I 32                                   | - 11 × 140 | 71 C | * 2  | 8,12 |
|             | 353                        | 1,99           | 2,8   | MR 2I 40                                   | - 19 × 160 | 80 B | ** 4 | 3,96 |
|             | 383                        | 1,84           | 3,55  | MR 2I 40                                   | - 14 × 160 | 71 C | * 2  | 7,32 |
|             | 384                        | 1,83           | 1,8   | MR 2I 32                                   | - 11 × 140 | 71 C | * 2  | 7,29 |
|             | 442                        | 1,59           | 2     | MR 2I 32                                   | - 11 × 140 | 71 C | * 2  | 6,33 |
|             | 450                        | 1,56           | 4     | MR 2I 40                                   | - 14 × 160 | 71 C | * 2  | 6,22 |
|             | 554                        | 1,27           | 2,12  | MR 2I 32                                   | - 11 × 140 | 71 C | * 2  | 5,06 |
|             | 563                        | 1,25           | 4,25  | MR 2I 40                                   | - 14 × 160 | 71 C | * 2  | 4,97 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |      |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|------|---|------|
| 1)          |                            |                |       | 2)                                         |            |      |   |      |
| 1,1         | 7,62                       | 132            | 0,9   | MR 3I 100                                  | - 24 × 200 | 90 L | 6 | 118  |
|             | 7,62                       | 132            | 1,12  | MR 3I 101                                  | - 24 × 200 | 90 L | 6 | 118  |
|             | 9,36                       | 108            | 1,25  | MR 3I 100                                  | - 24 × 200 | 90 L | 6 | 96,2 |
|             | 9,36                       | 108            | 1,6   | MR 3I 101                                  | - 24 × 200 | 90 L | 6 | 96,2 |
|             | 9,75                       | 103            | 1,06  | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 144  |
|             | 10,7                       | 94             | 0,8   | MR 3I 81                                   | - 24 × 200 | 90 L | 6 | 84,3 |
|             | 11,1                       | 91             | 0,85  | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 126  |
|             | 11,5                       | 87             | 1,5   | MR 3I 100                                  | - 24 × 200 | 90 L | 6 | 77,9 |
|             | 11,5                       | 87             | 2     | MR 3I 101                                  | - 24 × 200 | 90 L | 6 | 77,9 |
|             | 11,8                       | 85             | 1,4   | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 118  |
|             | 11,8                       | 85             | 1,8   | MR 3I 101                                  | - 24 × 200 | 90 S | 4 | 118  |
|             | 13,3                       | 76             | 0,9   | MR 3I 80                                   | - 24 × 200 | 90 L | 6 | 67,5 |
|             | 13,3                       | 76             | 1,18  | MR 3I 81                                   | - 24 × 200 | 90 L | 6 | 67,5 |
|             | 13,8                       | 73             | 0,9   | MR 3I 80                                   | - 19 × 200 | 80 C | 4 | 101  |
|             | 13,8                       | 73             | 1,18  | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 101  |
|             | 14,6                       | 69             | 1,9   | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 96,2 |
|             | 14,6                       | 69             | 2,5   | MR 3I 101                                  | - 24 × 200 | 90 S | 4 | 96,2 |
|             | 16,5                       | 61             | 1,12  | MR 3I 80                                   | - 19 × 200 | 80 C | 4 | 84,6 |
|             | 16,5                       | 61             | 1,4   | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 84,6 |
|             | 16,6                       | 61             | 1     | MR 3I 80                                   | - 24 × 200 | 90 S | 4 | 84,3 |
|             | 16,6                       | 61             | 1,25  | MR 3I 81                                   | - 24 × 200 | 90 S | 4 | 84,3 |
|             | 17                         | 59             | 2,24  | MR 3I 100                                  | - 24 × 200 | 90 L | 6 | 53,1 |
|             | 17                         | 59             | 1,12  | MR 3I 80                                   | - 24 × 200 | 90 L | 6 | 52,9 |
|             | 17                         | 59             | 1,5   | MR 3I 81                                   | - 24 × 200 | 90 L | 6 | 52,9 |
|             | 18                         | 56             | 2,36  | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 77,9 |
|             | 18                         | 56             | 3,15  | MR 3I 101                                  | - 24 × 200 | 90 S | 4 | 77,9 |
|             | 19,2                       | 53             | 0,85  | MR 3I 64                                   | - 24 × 200 | 90 L | 6 | 46,9 |
|             | 19,6                       | 51             | 2,5   | MR 3I 100                                  | - 24 × 200 | 90 L | 6 | 45,9 |
|             | 20,7                       | 48,6           | 1,4   | MR 3I 80                                   | - 24 × 200 | 90 S | 4 | 67,5 |
|             | 20,7                       | 48,6           | 1,8   | MR 3I 81                                   | - 24 × 200 | 90 S | 4 | 67,5 |
|             | 21                         | 48,1           | 0,85  | MR 3I 64                                   | - 24 × 200 | 90 L | 6 | 42,9 |
|             | 21,1                       | 47,8           | 1,4   | MR 3I 80                                   | - 19 × 200 | 80 C | 4 | 66,3 |
|             | 21,1                       | 47,8           | 1,8   | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 66,3 |
|             | 22                         | 45,9           | 2,8   | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 63,8 |
|             | 22,6                       | 44,6           | 1,5   | MR 3I 80                                   | - 24 × 200 | 90 L | 6 | 39,8 |
|             | 22,6                       | 44,6           | 2     | MR 3I 81                                   | - 24 × 200 | 90 L | 6 | 39,8 |
|             | 23,3                       | 43,2           | 1     | MR 3I 64                                   | - 24 × 200 | 90 L | 6 | 38,5 |
|             | 23,5                       | 42,8           | 0,8   | MR 3I 63                                   | - 19 × 200 | 80 C | 4 | 59,5 |
|             | 23,5                       | 42,8           | 1     | MR 3I 64                                   | - 19 × 200 | 80 C | 4 | 59,5 |
|             | 23,8                       | 42,3           | 1,6   | MR 3I 80                                   | - 19 × 200 | 80 C | 4 | 58,7 |
|             | 23,8                       | 42,4           | 1,5   | MR 3I 80                                   | - 24 × 200 | 90 S | 4 | 58,8 |
|             | 23,8                       | 42,3           | 2,12  | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 58,7 |
|             | 23,8                       | 42,4           | 1,9   | MR 3I 81                                   | - 24 × 200 | 90 S | 4 | 58,8 |
|             | 23,9                       | 42,2           | 0,9   | MR 3I 64                                   | - 24 × 200 | 90 S | 4 | 58,6 |
|             | 24,1                       | 41,8           | 3,15  | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 58   |
|             | 25,7                       | 39,2           | 0,8   | MR 3I 63                                   | - 19 × 200 | 80 C | 4 | 54,5 |
|             | 25,7                       | 39,2           | 1,06  | MR 3I 64                                   | - 19 × 200 | 80 C | 4 | 54,5 |
|             | 25,8                       | 39             | 0,85  | MR 3I 63                                   | - 24 × 200 | 90 L | 6 | 34,8 |
|             | 25,8                       | 39             | 1,18  | MR 3I 64                                   | - 24 × 200 | 90 L | 6 | 34,8 |
|             | 26,4                       | 38,2           | 3,55  | MR 3I 100                                  | - 24 × 200 | 90 S | 4 | 53,1 |
|             | 26,5                       | 38,1           | 1,7   | MR 3I 80                                   | - 24 × 200 | 90 S | 4 | 52,9 |
|             | 26,5                       | 38,1           | 2,24  | MR 3I 81                                   | - 24 × 200 | 90 S | 4 | 52,9 |
|             | 26,8                       | 37,6           | 0,85  | MR 3I 63                                   | - 24 × 200 | 90 S | 4 | 52,2 |
|             | 26,8                       | 37,6           | 1,06  | MR 3I 64                                   | - 24 × 200 | 90 S | 4 | 52,2 |
|             | 28,1                       | 35,9           | 1,9   | MR 3I 80                                   | - 19 × 200 | 80 C | 4 | 49,8 |
|             | 28,1                       | 35,9           | 2,5   | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 49,8 |
|             | 28,4                       | 35,5           | 0,95  | MR 3I 63                                   | - 24 × 200 | 90 L | 6 | 31,7 |
|             | 28,4                       | 35,5           | 1,25  | MR 3I 64                                   | - 24 × 200 | 90 L | 6 | 31,7 |
|             | 28,6                       | 35,2           | 0,95  | MR 3I 63                                   | - 19 × 200 | 80 C | 4 | 48,9 |
|             | 28,6                       | 35,2           | 1,25  | MR 3I 64                                   | - 19 × 200 | 80 C | 4 | 48,9 |
|             | 29,9                       | 33,8           | 1     | MR 3I 63                                   | - 24 × 200 | 90 S | 4 | 46,9 |
|             | 29,9                       | 33,8           | 1,25  | MR 3I 64                                   | - 24 × 200 | 90 S | 4 | 46,9 |
|             | 29,9                       | 33,8           | 2     | MR 3I 80                                   | - 24 × 200 | 90 S | 4 | 46,9 |
|             | 29,9                       | 33,8           | 2,65  | MR 3I 81                                   | - 24 × 200 | 90 S | 4 | 46,9 |
|             | 31,7                       | 31,9           | 1,06  | MR 3I 63                                   | - 19 × 200 | 80 C | 4 | 44,2 |
|             | 31,7                       | 31,9           | 1,4   | MR 3I 64                                   | - 19 × 200 | 80 C | 4 | 44,2 |
|             | 32,1                       | 31,4           | 2,12  | MR 3I 80                                   | - 19 × 200 | 80 C | 4 | 43,6 |
|             | 32,1                       | 31,4           | 2,8   | MR 3I 81                                   | - 19 × 200 | 80 C | 4 | 43,6 |
|             | 32,6                       | 30,9           | 1     | MR 3I 63                                   | - 24 × 200 | 90 S | 4 | 42,9 |
|             | 32,6                       | 30,9           | 1,32  | MR 3I 64                                   | - 24 × 200 | 90 S | 4 | 42,9 |

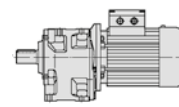
Motor (cat. TX) with efficiency value not according to IE3 class (IEC 60034-30); the nominal power and nameplate data refer to intermittent duty S3 70%.

1) Powers valid for continuous duty S1; increase possible for S2 ... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.

2) For complete designation when ordering, see ch. 3.

\* Mounting position **B5R** (see table ch. 2b).

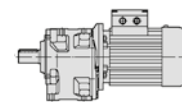




| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |        |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|--------|---|------|
| 1)          |                            |                |       | 2)                                         |            |        |   |      |
| 1,1         | 34,8                       | 28,9           | 1,12  | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 40,2 |
|             | 34,8                       | 28,9           | 1,5   | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 40,2 |
|             | 35,2                       | 28,6           | 2,36  | MR 3I 80                                   | - 24 × 200 | 90 S   | 4 | 39,8 |
|             | 35,2                       | 28,6           | 3,15  | MR 3I 81                                   | - 24 × 200 | 90 S   | 4 | 39,8 |
|             | 36,3                       | 27,8           | 1,18  | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 38,5 |
|             | 36,3                       | 27,8           | 1,5   | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 38,5 |
|             | 36,3                       | 27,8           | 2,36  | MR 3I 80                                   | - 19 × 200 | 80 C   | 4 | 38,6 |
|             | 36,7                       | 28             | 1,9   | MR 2I 80                                   | - 24 × 200 | 90 L   | 6 | 24,5 |
|             | 37,1                       | 27,2           | 0,8   | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 37,7 |
|             | 37,1                       | 27,8           | 0,95  | MR 2I 63                                   | - 19 × 200 | 90 L * | 6 | 24,3 |
|             | 37,9                       | 26,6           | 1,18  | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 36,9 |
|             | 37,9                       | 26,6           | 1,5   | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 36,9 |
|             | 40,2                       | 25,1           | 1,32  | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 34,8 |
|             | 40,2                       | 25,1           | 1,7   | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 34,8 |
|             | 40,3                       | 25             | 2,65  | MR 3I 80                                   | - 24 × 200 | 90 S   | 4 | 34,8 |
|             | 40,6                       | 24,8           | 0,9   | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 34,5 |
|             | 42,2                       | 23,9           | 1,32  | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 33,2 |
|             | 42,2                       | 23,9           | 1,8   | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 33,2 |
|             | 42,7                       | 23,6           | 2,8   | MR 3I 80                                   | - 19 × 200 | 80 C   | 4 | 32,8 |
|             | 44,2                       | 22,8           | 1,4   | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 31,7 |
|             | 44,2                       | 22,8           | 1,9   | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 31,7 |
|             | 44,9                       | 22,9           | 2,5   | MR 2I 80                                   | - 24 × 200 | 90 L   | 6 | 20,1 |
|             | 45,5                       | 22,2           | 3     | MR 3I 80                                   | - 24 × 200 | 90 S   | 4 | 30,8 |
|             | 46,7                       | 21,6           | 1,5   | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 30   |
|             | 46,7                       | 21,6           | 2     | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 30   |
|             | 47                         | 21,5           | 1     | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 29,8 |
|             | 47,4                       | 21,7           | 1,32  | MR 2I 63                                   | - 19 × 200 | 90 L * | 6 | 19   |
|             | 47,4                       | 21,7           | 1,6   | MR 2I 64                                   | - 19 × 200 | 90 L * | 6 | 19   |
|             | 48,1                       | 21             | 1,5   | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 29,1 |
|             | 48,1                       | 21             | 1,9   | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 29,1 |
|             | 51,4                       | 19,6           | 1,6   | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 27,2 |
|             | 51,4                       | 19,6           | 2,24  | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 27,2 |
|             | 53,6                       | 18,8           | 1,7   | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 26,1 |
|             | 53,6                       | 18,8           | 2,24  | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 26,1 |
|             | 55,5                       | 18,5           | 1,4   | MR 2I 63                                   | - 24 × 200 | 90 L   | 6 | 16,2 |
|             | 56,1                       | 18             | 0,85  | MR 3I 50                                   | - 19 × 200 | 80 C   | 4 | 25   |
|             | 56,1                       | 18             | 1,18  | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 25   |
|             | 57,1                       | 18             | 2,8   | MR 2I 80                                   | - 24 × 200 | 90 S   | 4 | 24,5 |
|             | 57,7                       | 17,8           | 1,4   | MR 2I 63                                   | - 19 × 200 | 80 C   | 4 | 24,3 |
|             | 59,3                       | 17             | 1,9   | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 23,6 |
|             | 59,3                       | 17             | 2,5   | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 23,6 |
|             | 60                         | 16,8           | 1,9   | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 23,3 |
|             | 60                         | 16,8           | 2,65  | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 23,3 |
|             | 61,6                       | 16,4           | 0,9   | MR 3I 50                                   | - 19 × 200 | 80 C   | 4 | 22,7 |
|             | 61,6                       | 16,4           | 1,32  | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 22,7 |
|             | 65,2                       | 15,5           | 2     | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 21,5 |
|             | 65,2                       | 15,5           | 2,8   | MR 3I 64                                   | - 24 × 200 | 90 S   | 4 | 21,5 |
|             | 66,7                       | 15,1           | 2,12  | MR 3I 63                                   | - 19 × 200 | 80 C   | 4 | 21   |
|             | 66,7                       | 15,1           | 2,8   | MR 3I 64                                   | - 19 × 200 | 80 C   | 4 | 21   |
|             | 67,4                       | 15             | 1     | MR 3I 50                                   | - 19 × 200 | 80 C   | 4 | 20,8 |
|             | 67,4                       | 15             | 1,4   | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 20,8 |
|             | 70,9                       | 14,5           | 2     | MR 2I 63                                   | - 24 × 200 | 90 L   | 6 | 12,7 |
|             | 70,9                       | 14,5           | 2,36  | MR 2I 64                                   | - 24 × 200 | 90 L   | 6 | 12,7 |
|             | 73,6                       | 14             | 0,95  | MR 2I 50                                   | - 19 × 200 | 90 L * | 6 | 12,2 |
|             | 73,6                       | 14             | 1,25  | MR 2I 51                                   | - 19 × 200 | 90 L * | 6 | 12,2 |
|             | 73,7                       | 14             | 2     | MR 2I 63                                   | - 19 × 200 | 80 C   | 4 | 19   |
|             | 73,7                       | 14             | 2,5   | MR 2I 64                                   | - 19 × 200 | 80 C   | 4 | 19   |
|             | 76,2                       | 13,2           | 2,36  | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 18,4 |
|             | 76,8                       | 13,4           | 0,9   | MR 2I 50                                   | - 24 × 200 | 90 L   | 6 | 11,7 |
|             | 77,9                       | 12,9           | 1,18  | MR 3I 50                                   | - 19 × 200 | 80 C   | 4 | 18   |
|             | 77,9                       | 12,9           | 1,6   | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 18   |
|             | 81,8                       | 12,6           | 1,12  | MR 2I 50                                   | - 19 × 200 | 90 L * | 6 | 11   |
|             | 81,8                       | 12,6           | 1,5   | MR 2I 51                                   | - 19 × 200 | 90 L * | 6 | 11   |
|             | 82,7                       | 12,4           | 2,36  | MR 2I 63                                   | - 19 × 200 | 80 C   | 4 | 16,9 |
|             | 84,7                       | 11,9           | 2,65  | MR 3I 63                                   | - 24 × 200 | 90 S   | 4 | 16,5 |
|             | 86,1                       | 11,7           | 1,32  | MR 3I 50                                   | - 19 × 200 | 80 C   | 4 | 16,3 |
|             | 86,1                       | 11,7           | 1,8   | MR 3I 51                                   | - 19 × 200 | 80 C   | 4 | 16,3 |
|             | 86,4                       | 11,9           | 2,12  | MR 2I 63                                   | - 24 × 200 | 90 S   | 4 | 16,2 |
|             | 88,6                       | 11,6           | 2,65  | MR 2I 63                                   | - 24 × 200 | 90 L   | 6 | 10,2 |
|             | 90,4                       | 11,4           | 1,32  | MR 2I 50                                   | - 19 × 200 | 90 L * | 6 | 9,96 |
|             | 90,4                       | 11,4           | 1,8   | MR 2I 51                                   | - 19 × 200 | 90 L * | 6 | 9,96 |
|             | 92,1                       | 11,2           | 2,8   | MR 2I 63                                   | - 19 × 200 | 80 C   | 4 | 15,2 |

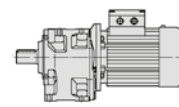
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$     | Riduttore - Motore<br>Gear reducer - Motor |            |         |      | $i$  |
|-------------|----------------------------|----------------|-----------|--------------------------------------------|------------|---------|------|------|
| 1)          |                            |                |           | 2)                                         |            |         |      |      |
| 1,1         | 93,4                       | 11             | 1,18      | MR 2I 50                                   | - 24 × 200 | 90 L    | 6    | 9,64 |
|             | 93,4                       | 11             | 1,6       | MR 2I 51                                   | - 24 × 200 | 90 L    | 6    | 9,64 |
|             | 94,2                       | 10,9           | 1,12      | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 14,9 |
|             | 98,8                       | 10,4           | 2,8       | MR 2I 63                                   | - 19 × 200 | 80 C    | 4    | 14,2 |
|             | 104                        | 9,9            | 1,4       | MR 2I 50                                   | - 24 × 200 | 90 L    | 6    | 8,67 |
|             | 104                        | 9,9            | 1,9       | MR 2I 51                                   | - 24 × 200 | 90 L    | 6    | 8,67 |
|             | 110                        | 9,4            | 3,15      | MR 2I 63                                   | - 19 × 200 | 80 C    | 4    | 12,7 |
|             | 110                        | 9,3            | 3         | MR 2I 63                                   | - 24 × 200 | 90 S    | 4    | 12,7 |
|             | 114                        | 9              | 1,5       | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 12,2 |
|             | 114                        | 9              | 1,9       | MR 2I 51                                   | - 19 × 200 | 80 C    | 4    | 12,2 |
|             | 115                        | 9              | 1,6       | MR 2I 50                                   | - 24 × 200 | 90 L    | 6    | 7,85 |
|             | 115                        | 9              | 2,24      | MR 2I 51                                   | - 24 × 200 | 90 L    | 6    | 7,85 |
|             | 120                        | 8,6            | 1,4       | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 11,7 |
|             | 122                        | 8,5            | 3,55      | MR 2I 63                                   | - 19 × 200 | 80 C    | 4    | 11,5 |
|             | 124                        | 8,3            | 3,55      | MR 2I 63                                   | - 24 × 200 | 90 S    | 4    | 11,3 |
|             | 126                        | 8,2            | 1,8       | MR 2I 50                                   | - 24 × 200 | 90 L    | 6    | 7,14 |
|             | 126                        | 8,2            | 2,5       | MR 2I 51                                   | - 24 × 200 | 90 L    | 6    | 7,14 |
|             | 127                        | 8,1            | 1,7       | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 11   |
|             | 127                        | 8,1            | 2,24      | MR 2I 51                                   | - 19 × 200 | 80 C    | 4    | 11   |
|             | 133                        | 7,8            | 0,8       | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 10,6 |
|             | 133                        | 7,8            | 0,9       | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 10,6 |
|             | 141                        | 7,3            | 1,9       | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 9,96 |
|             | 141                        | 7,3            | 2,65      | MR 2I 51                                   | - 19 × 200 | 80 C    | 4    | 9,96 |
|             | 145                        | 7,1            | 1,8       | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 9,64 |
|             | 145                        | 7,1            | 2,36      | MR 2I 51                                   | - 24 × 200 | 90 S    | 4    | 9,64 |
|             | 149                        | 6,9            | 0,95      | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 9,41 |
|             | 149                        | 6,9            | 1,12      | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 9,41 |
|             | 154                        | 6,7            | 2,12      | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 9,07 |
|             | 154                        | 6,7            | 3         | MR 2I 51                                   | - 19 × 200 | 80 C    | 4    | 9,07 |
|             | 162                        | 6,4            | 2,12      | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 8,67 |
|             | 162                        | 6,4            | 2,8       | MR 2I 51                                   | - 24 × 200 | 90 S    | 4    | 8,67 |
|             | 165                        | 6,2            | 1,06      | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 8,46 |
|             | 165                        | 6,2            | 1,32      | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 8,46 |
|             | 169                        | 6,1            | 2,36      | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 8,29 |
|             | 178                        | 5,8            | 2,36      | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 7,85 |
|             | 178                        | 5,8            | 3,35      | MR 2I 51                                   | - 24 × 200 | 90 S    | 4    | 7,85 |
|             | 187                        | 5,5            | 1,18      | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 7,5  |
|             | 187                        | 5,5            | 1,5       | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 7,5  |
|             | 195                        | 5,3            | 2,65      | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 7,17 |
|             | 196                        | 5,3            | 2,65      | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 7,14 |
|             | 214                        | 4,8            | 2,8       | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 6,53 |
|             | 216                        | 4,77           | 3         | MR 2I 50                                   | - 19 × 200 | 80 C    | 4    | 6,49 |
|             | 220                        | 4,68           | 1,4       | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 6,36 |
|             | 220                        | 4,68           | 1,8       | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 6,36 |
|             | 240                        | 4,29           | 1,5       | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 5,83 |
|             | 240                        | 4,29           | 2         | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 5,83 |
|             | 248                        | 4,15           | 3,35      | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 5,65 |
|             | 274                        | 3,76           | 3,75      | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 5,11 |
|             | 282                        | 3,65           | 1,8       | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 4,96 |
|             | 282                        | 3,65           | 2,24      | MR 2I 41                                   | - 19 × 160 | 80 C ** | 4    | 4,96 |
|             | 342                        | 3,01           | 3,75      | MR 2I 50                                   | - 24 × 200 | 90 S    | 4    | 4,1  |
|             | 353                        | 2,91           | 1,9       | MR 2I 40                                   | - 19 × 160 | 80 C ** | 4    | 3,96 |
|             | 374                        | 2,76           | 2,24      | MR 2I 40                                   | - 19 × 160 | 80 B ** | 2    | 7,5  |
|             | 374                        | 2,76           | 3         | MR 2I 41                                   | - 19 × 160 | 80 B ** | 2    | 7,5  |
|             | 440                        | 2,34           | 2,65      | MR 2I 40                                   | - 19 × 160 | 80 B ** | 2    | 6,36 |
|             | 480                        | 2,14           | 3         | MR 2I 40                                   | - 19 × 160 | 80 B ** | 2    | 5,83 |
|             | 564                        | 1,82           | 3,55      | MR 2I 40                                   | - 19 × 160 | 80 B ** | 2    | 4,96 |
|             | 706                        | 1,46           | 3,55      | MR 2I 40                                   | - 19 × 160 | 80 B ** | 2    | 3,96 |
| 1,5         | 6,02                       | 229            | 0,95      | MR 3I 125                                  | - 28 × 250 | 100 LA  | 6    | 150  |
|             | 7,62                       | 181            | 0,85      | MR 3I 101                                  | - 24 × 200 | 90 LC   | 6    | 118  |
|             | 7,68                       | 179            | 1,32      | MR 3I 125                                  | - 28 × 250 | 100 LA  | 6    | 117  |
|             | 7,68                       | 179            | 1,7       | MR 3I 126                                  | - 28 × 250 | 100 LA  | 6    | 117  |
|             | 7,68                       | 179            | 2,36      | MR 3I 140                                  | - 28 × 250 | 100 LA  | 6    | 117  |
|             | 9,36                       | 147            | 0,9       | MR 3I 100                                  | - 24 × 200 | 90 LC   | 6    | 96,2 |
|             | 9,36                       | 147            | 1,18      | MR 3I 101                                  | - 24 × 200 | 90 LC   | 6    | 96,2 |
|             | 9,4                        | 146            | 0,85      | MR 3I 100                                  | - 28 × 250 | 100 LA  | 6    | 95,7 |
| 9,4         | 146                        | 1              | MR 3I 101 | - 28 × 250                                 | 100 LA     | 6       | 95,7 |      |
| 9,6         | 143                        | 1,9            | MR 3I 125 | - 28 × 250                                 | 100 LA     | 6       | 93,7 |      |





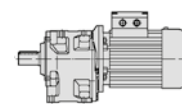
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |        |   |  | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|---|--|------|
| 1)          |                            |                |       | 2)                                         |        |   |  |      |
| 1,5         | 9,6                        | 143            | 2,36  | MR 3I 126 - 28 × 250                       | 100 LA | 6 |  | 93,7 |
|             | 9,75                       | 141            | 0,8   | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 144  |
|             | 11,5                       | 119            | 1,12  | MR 3I 100 - 28 × 250                       | 100 LA | 6 |  | 77,9 |
|             | 11,5                       | 119            | 1,12  | MR 3I 100 - 24 × 200                       | 90 LC  | 6 |  | 77,9 |
|             | 11,5                       | 119            | 1,5   | MR 3I 101 - 28 × 250                       | 100 LA | 6 |  | 77,9 |
|             | 11,5                       | 119            | 1,5   | MR 3I 101 - 24 × 200                       | 90 LC  | 6 |  | 77,9 |
|             | 11,8                       | 116            | 1,06  | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 118  |
|             | 11,8                       | 116            | 1,32  | MR 3I 101 - 24 × 200                       | 90 L   | 4 |  | 118  |
|             | 12,1                       | 114            | 2,36  | MR 3I 125 - 28 × 250                       | 100 LA | 6 |  | 74,4 |
|             | 12,1                       | 114            | 3     | MR 3I 126 - 28 × 250                       | 100 LA | 6 |  | 74,4 |
|             | 13,3                       | 103            | 0,85  | MR 3I 81 - 24 × 200                        | 90 LC  | 6 |  | 67,5 |
|             | 14,6                       | 94             | 1,4   | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 96,2 |
|             | 14,6                       | 94             | 1,9   | MR 3I 101 - 24 × 200                       | 90 L   | 4 |  | 96,2 |
|             | 14,7                       | 93             | 2,8   | MR 3I 125 - 28 × 250                       | 100 LA | 6 |  | 61,2 |
|             | 15,8                       | 87             | 1,5   | MR 3I 100 - 28 × 250                       | 100 LA | 6 |  | 57,1 |
|             | 15,8                       | 87             | 1,9   | MR 3I 101 - 28 × 250                       | 100 LA | 6 |  | 57,1 |
|             | 16,3                       | 84             | 3,15  | MR 3I 125 - 28 × 250                       | 100 LA | 6 |  | 55,3 |
|             | 16,6                       | 83             | 0,9   | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 84,3 |
|             | 16,9                       | 81             | 1,06  | MR 3I 81 - 28 × 250                        | 100 LA | 6 |  | 53,2 |
|             | 17                         | 81             | 1,6   | MR 3I 100 - 24 × 200                       | 90 LC  | 6 |  | 53,1 |
|             | 17                         | 81             | 2,24  | MR 3I 101 - 24 × 200                       | 90 LC  | 6 |  | 53,1 |
|             | 17                         | 81             | 0,85  | MR 3I 80 - 24 × 200                        | 90 LC  | 6 |  | 52,9 |
|             | 17                         | 81             | 1,06  | MR 3I 81 - 24 × 200                        | 90 LC  | 6 |  | 52,9 |
|             | 18                         | 77             | 1,7   | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 77,9 |
|             | 18                         | 77             | 2,24  | MR 3I 101 - 24 × 200                       | 90 L   | 4 |  | 77,9 |
|             | 19,1                       | 72             | 2,5   | MR 3I 101 - 28 × 250                       | 100 LA | 6 |  | 47,1 |
|             | 19,6                       | 70             | 1,9   | MR 3I 100 - 24 × 200                       | 90 LC  | 6 |  | 45,9 |
|             | 20,7                       | 66             | 1     | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 67,5 |
|             | 20,7                       | 66             | 1,32  | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 67,5 |
|             | 20,9                       | 66             | 2     | MR 3I 100 - 28 × 250                       | 100 LA | 6 |  | 43,1 |
|             | 22                         | 63             | 2,12  | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 63,8 |
|             | 22                         | 63             | 2,8   | MR 3I 101 - 24 × 200                       | 90 L   | 4 |  | 63,8 |
|             | 22,6                       | 61             | 1,12  | MR 3I 80 - 24 × 200                        | 90 LC  | 6 |  | 39,8 |
|             | 22,6                       | 61             | 1,5   | MR 3I 81 - 24 × 200                        | 90 LC  | 6 |  | 39,8 |
|             | 23,8                       | 58             | 1,12  | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 58,8 |
|             | 23,8                       | 58             | 1,4   | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 58,8 |
|             | 24,1                       | 57             | 2,36  | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 58   |
|             | 25,8                       | 53             | 0,85  | MR 3I 64 - 24 × 200                        | 90 LC  | 6 |  | 34,8 |
|             | 26,4                       | 52             | 2,5   | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 53,1 |
|             | 26,5                       | 52             | 1,25  | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 52,9 |
|             | 26,5                       | 52             | 1,7   | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 52,9 |
|             | 26,8                       | 51             | 0,8   | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 52,2 |
|             | 28,1                       | 48,9           | 2,65  | MR 3I 100 - 24 × 200                       | 90 LC  | 6 |  | 32   |
|             | 28,9                       | 47,6           | 2,8   | MR 3I 100 - 28 × 250                       | 100 LA | 6 |  | 31,2 |
|             | 29,9                       | 46             | 0,95  | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 46,9 |
|             | 29,9                       | 46             | 1,4   | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 46,9 |
|             | 29,9                       | 46             | 1,9   | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 46,9 |
|             | 30,5                       | 45,1           | 3     | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 45,9 |
|             | 32,6                       | 42,2           | 0,95  | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 42,9 |
|             | 32,9                       | 41,8           | 1,6   | MR 3I 80 - 28 × 250                        | 100 LA | 6 |  | 27,4 |
|             | 32,9                       | 41,8           | 2     | MR 3I 81 - 28 × 250                        | 100 LA | 6 |  | 27,4 |
|             | 35,2                       | 39,1           | 1,7   | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 39,8 |
|             | 35,2                       | 39,1           | 2,24  | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 39,8 |
|             | 36,3                       | 37,9           | 0,85  | MR 3I 63 - 24 × 200                        | 90 L   | 4 |  | 38,5 |
|             | 36,3                       | 37,9           | 1,12  | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 38,5 |
|             | 36,4                       | 37,7           | 3,35  | MR 3I 100 - 24 × 200                       | 90 L   | 4 |  | 38,4 |
|             | 40,2                       | 34,2           | 0,95  | MR 3I 63 - 24 × 200                        | 90 L   | 4 |  | 34,8 |
|             | 40,2                       | 34,2           | 1,25  | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 34,8 |
|             | 40,3                       | 34,1           | 1,9   | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 34,8 |
|             | 40,3                       | 34,1           | 2,5   | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 34,8 |
|             | 44,2                       | 31,1           | 1,06  | MR 3I 63 - 24 × 200                        | 90 L   | 4 |  | 31,7 |
|             | 44,2                       | 31,1           | 1,4   | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 31,7 |
|             | 45,5                       | 30,3           | 2,12  | MR 3I 80 - 24 × 200                        | 90 L   | 4 |  | 30,8 |
|             | 45,5                       | 30,3           | 2,8   | MR 3I 81 - 24 × 200                        | 90 L   | 4 |  | 30,8 |
|             | 48,1                       | 28,6           | 1,06  | MR 3I 63 - 24 × 200                        | 90 L   | 4 |  | 29,1 |
|             | 48,1                       | 28,6           | 1,4   | MR 3I 64 - 24 × 200                        | 90 L   | 4 |  | 29,1 |
|             | 48,7                       | 28,2           | 2,36  | MR 3I 80 - 28 × 250                        | 100 LA | 6 |  | 18,5 |
|             | 49                         | 28,1           | 1,18  | MR 3I 63 - 24 × 200                        | 90 LC  | 6 |  | 18,4 |
|             | 49                         | 28,1           | 1,6   | MR 3I 64 - 24 × 200                        | 90 LC  | 6 |  | 18,4 |
|             | 50,3                       | 27,9           | 2,24  | MR 2I 80 - 24 × 200                        | 90 LC  | 6 |  | 17,9 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$    | Riduttore - Motore<br>Gear reducer - Motor |            |        |   |      | $i$  |
|-------------|----------------------------|----------------|----------|--------------------------------------------|------------|--------|---|------|------|
| 1)          |                            |                |          | 2)                                         |            |        |   |      |      |
| 1,5         | 53,6                       | 25,7           | 1,25     | MR 3I 63                                   | - 24 × 200 | 90 L   |   | 4    | 26,1 |
|             | 53,6                       | 25,7           | 1,6      | MR 3I 64                                   | - 24 × 200 | 90 L   |   | 4    | 26,1 |
|             | 53,6                       | 25,7           | 2,5      | MR 3I 80                                   | - 24 × 200 | 90 L   |   | 4    | 26,1 |
|             | 56,1                       | 24,5           | 0,85     | MR 3I 51                                   | - 19 × 200 | 90 L   | * | 4    | 25   |
|             | 57,1                       | 24,6           | 2,12     | MR 2I 80                                   | - 24 × 200 | 90 L   |   | 4    | 24,5 |
|             | 57,7                       | 24,3           | 1,06     | MR 2I 63                                   | - 19 × 200 | 90 L   | * | 4    | 24,3 |
|             | 59,3                       | 23,2           | 1,4      | MR 3I 63                                   | - 24 × 200 | 90 L   |   | 4    | 23,6 |
|             | 59,3                       | 23,2           | 1,8      | MR 3I 64                                   | - 24 × 200 | 90 L   |   | 4    | 23,6 |
|             | 59,7                       | 23             | 2,8      | MR 3I 80                                   | - 24 × 200 | 90 L   |   | 4    | 23,5 |
|             | 61,6                       | 22,3           | 0,95     | MR 3I 51                                   | - 19 × 200 | 90 L   | * | 4    | 22,7 |
|             | 62,1                       | 22,6           | 2,65     | MR 2I 80                                   | - 28 × 250 | 100 LA |   | 6    | 14,5 |
|             | 62,1                       | 22,6           | 2,65     | MR 2I 80                                   | - 24 × 200 | 90 LC  |   | 6    | 14,5 |
|             | 65,2                       | 21,1           | 1,5      | MR 3I 63                                   | - 24 × 200 | 90 L   |   | 4    | 21,5 |
|             | 65,2                       | 21,1           | 2        | MR 3I 64                                   | - 24 × 200 | 90 L   |   | 4    | 21,5 |
|             | 67,4                       | 20,4           | 1,06     | MR 3I 51                                   | - 19 × 200 | 90 L   | * | 4    | 20,8 |
|             | 69,8                       | 20,1           | 2,8      | MR 2I 80                                   | - 24 × 200 | 90 L   |   | 4    | 20,1 |
|             | 70,5                       | 19,9           | 1,32     | MR 2I 63                                   | - 28 × 250 | 100 LA |   | 6    | 12,8 |
|             | 73,7                       | 19,1           | 1,5      | MR 2I 63                                   | - 19 × 200 | 90 L   | * | 4    | 19   |
|             | 73,7                       | 19,1           | 1,8      | MR 2I 64                                   | - 19 × 200 | 90 L   | * | 4    | 19   |
|             | 76,2                       | 18             | 1,8      | MR 3I 63                                   | - 24 × 200 | 90 L   |   | 4    | 18,4 |
|             | 76,2                       | 18             | 2,36     | MR 3I 64                                   | - 24 × 200 | 90 L   |   | 4    | 18,4 |
|             | 77,9                       | 17,6           | 0,85     | MR 3I 50                                   | - 19 × 200 | 90 L   | * | 4    | 18   |
|             | 77,9                       | 17,6           | 1,18     | MR 3I 51                                   | - 19 × 200 | 90 L   | * | 4    | 18   |
|             | 82,7                       | 17             | 1,8      | MR 2I 63                                   | - 19 × 200 | 90 L   | * | 4    | 16,9 |
|             | 82,7                       | 17             | 2,24     | MR 2I 64                                   | - 19 × 200 | 90 L   | * | 4    | 16,9 |
|             | 84,7                       | 16,2           | 2        | MR 3I 63                                   | - 24 × 200 | 90 L   |   | 4    | 16,5 |
|             | 84,7                       | 16,2           | 2,65     | MR 3I 64                                   | - 24 × 200 | 90 L   |   | 4    | 16,5 |
|             | 86,1                       | 16             | 0,95     | MR 3I 50                                   | - 19 × 200 | 90 L   | * | 4    | 16,3 |
|             | 86,1                       | 16             | 1,32     | MR 3I 51                                   | - 19 × 200 | 90 L   | * | 4    | 16,3 |
|             | 86,4                       | 16,3           | 1,6      | MR 2I 63                                   | - 24 × 200 | 90 L   |   | 4    | 16,2 |
|             | 90                         | 15,6           | 2,24     | MR 2I 64                                   | - 28 × 250 | 100 LA |   | 6    | 10   |
|             | 92,1                       | 15,2           | 2        | MR 2I 63                                   | - 19 × 200 | 90 L   | * | 4    | 15,2 |
|             | 92,1                       | 15,2           | 2,65     | MR 2I 64                                   | - 19 × 200 | 90 L   | * | 4    | 15,2 |
|             | 93,4                       | 15             | 0,9      | MR 2I 50                                   | - 24 × 200 | 90 LC  |   | 6    | 9,64 |
|             | 93,4                       | 15             | 1,18     | MR 2I 51                                   | - 24 × 200 | 90 LC  |   | 6    | 9,64 |
|             | 94,2                       | 14,9           | 0,8      | MR 2I 50                                   | - 19 × 200 | 90 L   | * | 4    | 14,9 |
|             | 98,8                       | 14,2           | 2,12     | MR 2I 63                                   | - 19 × 200 | 90 L   | * | 4    | 14,2 |
|             | 98,8                       | 14,2           | 2,65     | MR 2I 64                                   | - 19 × 200 | 90 L   | * | 4    | 14,2 |
|             | 104                        | 13,5           | 1        | MR 2I 50                                   | - 24 × 200 | 90 LC  |   | 6    | 8,67 |
|             | 104                        | 13,5           | 1,4      | MR 2I 51                                   | - 24 × 200 | 90 LC  |   | 6    | 8,67 |
|             | 110                        | 12,7           | 2,24     | MR 2I 63                                   | - 24 × 200 | 90 L   |   | 4    | 12,7 |
|             | 110                        | 12,7           | 2,65     | MR 2I 64                                   | - 24 × 200 | 90 L   |   | 4    | 12,7 |
|             | 114                        | 12,3           | 1,06     | MR 2I 50                                   | - 19 × 200 | 90 L   | * | 4    | 12,2 |
|             | 114                        | 12,3           | 1,4      | MR 2I 51                                   | - 19 × 200 | 90 L   | * | 4    | 12,2 |
|             | 115                        | 12,2           | 1,18     | MR 2I 50                                   | - 24 × 200 | 90 LC  |   | 6    | 7,85 |
|             | 115                        | 12,2           | 1,6      | MR 2I 51                                   | - 24 × 200 | 90 LC  |   | 6    | 7,85 |
|             | 120                        | 11,7           | 1,06     | MR 2I 50                                   | - 24 × 200 | 90 L   |   | 4    | 11,7 |
|             | 124                        | 11,3           | 2,5      | MR 2I 63                                   | - 24 × 200 | 90 L   |   | 4    | 11,3 |
|             | 124                        | 11,3           | 3,15     | MR 2I 64                                   | - 24 × 200 | 90 L   |   | 4    | 11,3 |
|             | 127                        | 11             | 1,25     | MR 2I 50                                   | - 19 × 200 | 90 L   | * | 4    | 11   |
| 127         | 11                         | 1,7            | MR 2I 51 | - 19 × 200                                 | 90 L       | *      | 4 | 11   |      |
| 138         | 10,2                       | 3              | MR 2I 63 | - 24 × 200                                 | 90 L       |        | 4 | 10,2 |      |
| 141         | 10                         | 1,4            | MR 2I 50 | - 19 × 200                                 | 90 L       | *      | 4 | 9,96 |      |
| 141         | 10                         | 2              | MR 2I 51 | - 19 × 200                                 | 90 L       | *      | 4 | 9,96 |      |
| 145         | 9,7                        | 1,32           | MR 2I 50 | - 24 × 200                                 | 90 L       |        | 4 | 9,64 |      |
| 145         | 9,7                        | 1,8            | MR 2I 51 | - 24 × 200                                 | 90 L       |        | 4 | 9,64 |      |
| 153         | 9,2                        | 3,15           | MR 2I 63 | - 24 × 200                                 | 90 L       |        | 4 | 9,18 |      |
| 154         | 9,1                        | 1,6            | MR 2I 50 | - 19 × 200                                 | 90 L       | *      | 4 | 9,07 |      |
| 154         | 9,1                        | 2,24           | MR 2I 51 | - 19 × 200                                 | 90 L       | *      | 4 | 9,07 |      |
| 162         | 8,7                        | 1,6            | MR 2I 50 | - 24 × 200                                 | 90 L       |        | 4 | 8,67 |      |
| 162         | 8,7                        | 2,12           | MR 2I 51 | - 24 × 200                                 | 90 L       |        | 4 | 8,67 |      |
| 168         | 8,4                        | 3,55           | MR 2I 63 | - 24 × 200                                 | 90 L       |        | 4 | 8,34 |      |
| 169         | 8,3                        | 1,7            | MR 2I 50 | - 19 × 200                                 | 90 L       | *      | 4 | 8,29 |      |
| 169         | 8,3                        | 2,36           | MR 2I 51 | - 19 × 200                                 | 90 L       | *      | 4 | 8,29 |      |
| 178         | 7,9                        | 1,8            | MR 2I 50 | - 24 × 200                                 | 90 L       |        | 4 | 7,85 |      |
| 178         | 7,9                        | 2,5            | MR 2I 51 | - 24 × 200                                 | 90 L       |        | 4 | 7,85 |      |
| 196         | 7,2                        | 1,9            | MR 2I 50 | - 24 × 200                                 | 90 L       |        | 4 | 7,14 |      |
| 196         | 7,2                        | 2,8            | MR 2I 51 | - 24 × 200                                 | 90 L       |        | 4 | 7,14 |      |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |         |   |      | $i$ |
|-------------|----------------------------|----------------|-------|--------------------------------------------|---------|---|------|-----|
| 1)          |                            |                |       | 2)                                         |         |   |      |     |
| 1,5         | 211                        | 6,7            | 0,9   | MR 2I 40 - 14 × 160                        | 80 C *  | 2 | 13,3 |     |
|             | 211                        | 6,7            | 1     | MR 2I 41 - 14 × 160                        | 80 C *  | 2 | 13,3 |     |
|             | 214                        | 6,6            | 2,12  | MR 2I 50 - 24 × 200                        | 90 L    | 4 | 6,53 |     |
|             | 214                        | 6,6            | 3     | MR 2I 51 - 24 × 200                        | 90 L    | 4 | 6,53 |     |
|             | 238                        | 5,9            | 1,06  | MR 2I 40 - 14 × 160                        | 80 C *  | 2 | 11,8 |     |
|             | 238                        | 5,9            | 1,25  | MR 2I 41 - 14 × 160                        | 80 C *  | 2 | 11,8 |     |
|             | 248                        | 5,7            | 2,5   | MR 2I 50 - 24 × 200                        | 90 L    | 4 | 5,65 |     |
|             | 265                        | 5,3            | 1,18  | MR 2I 40 - 14 × 160                        | 80 C *  | 2 | 10,6 |     |
|             | 265                        | 5,3            | 1,5   | MR 2I 41 - 14 × 160                        | 80 C *  | 2 | 10,6 |     |
|             | 274                        | 5,1            | 2,65  | MR 2I 50 - 24 × 200                        | 90 L    | 4 | 5,11 |     |
|             | 298                        | 4,72           | 1,32  | MR 2I 40 - 14 × 160                        | 80 C *  | 2 | 9,41 |     |
|             | 298                        | 4,72           | 1,7   | MR 2I 41 - 14 × 160                        | 80 C *  | 2 | 9,41 |     |
|             | 331                        | 4,24           | 1,5   | MR 2I 40 - 19 × 160                        | 80 C ** | 2 | 8,46 |     |
|             | 331                        | 4,24           | 1,8   | MR 2I 41 - 19 × 160                        | 80 C ** | 2 | 8,46 |     |
|             | 342                        | 4,11           | 2,8   | MR 2I 50 - 24 × 200                        | 90 L    | 4 | 4,1  |     |
|             | 374                        | 3,76           | 1,7   | MR 2I 40 - 19 × 160                        | 80 C ** | 2 | 7,5  |     |
|             | 374                        | 3,76           | 2,12  | MR 2I 41 - 19 × 160                        | 80 C ** | 2 | 7,5  |     |
|             | 392                        | 3,58           | 3,75  | MR 2I 50 - 24 × 200                        | 90 S    | 2 | 7,14 |     |
|             | 429                        | 3,28           | 4     | MR 2I 50 - 24 × 200                        | 90 S    | 2 | 6,53 |     |
|             | 440                        | 3,19           | 2     | MR 2I 40 - 19 × 160                        | 80 C ** | 2 | 6,36 |     |
|             | 440                        | 3,19           | 2,5   | MR 2I 41 - 19 × 160                        | 80 C ** | 2 | 6,36 |     |
|             | 480                        | 2,92           | 2,12  | MR 2I 40 - 19 × 160                        | 80 C ** | 2 | 5,83 |     |
|             | 480                        | 2,92           | 2,8   | MR 2I 41 - 19 × 160                        | 80 C ** | 2 | 5,83 |     |
|             | 496                        | 2,83           | 4,75  | MR 2I 50 - 24 × 200                        | 90 S    | 2 | 5,65 |     |
|             | 548                        | 2,56           | 5,3   | MR 2I 50 - 24 × 200                        | 90 S    | 2 | 5,11 |     |
|             | 564                        | 2,49           | 2,5   | MR 2I 40 - 19 × 160                        | 80 C ** | 2 | 4,96 |     |
|             | 564                        | 2,49           | 3     | MR 2I 41 - 19 × 160                        | 80 C ** | 2 | 4,96 |     |
|             | 684                        | 2,05           | 5,6   | MR 2I 50 - 24 × 200                        | 90 S    | 2 | 4,1  |     |
|             | 706                        | 1,99           | 2,65  | MR 2I 40 - 19 × 160                        | 80 C ** | 2 | 3,96 |     |
| 1,85        | 6,02                       | 282            | 0,8   | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 150  |     |
|             | 7,68                       | 221            | 1,12  | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 117  |     |
|             | 7,68                       | 221            | 1,32  | MR 3I 126 - 28 × 250                       | 100 LB  | 6 | 117  |     |
|             | 7,68                       | 221            | 1,9   | MR 3I 140 - 28 × 250                       | 100 LB  | 6 | 117  |     |
|             | 9,4                        | 180            | 0,85  | MR 3I 101 - 28 × 250                       | 100 LB  | 6 | 95,7 |     |
|             | 9,42                       | 180            | 2,65  | MR 3I 140 - 28 × 250                       | 100 LB  | 6 | 95,5 |     |
|             | 9,6                        | 177            | 1,5   | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 93,7 |     |
|             | 9,6                        | 177            | 2     | MR 3I 126 - 28 × 250                       | 100 LB  | 6 | 93,7 |     |
|             | 11,5                       | 147            | 0,9   | MR 3I 100 - 28 × 250                       | 100 LB  | 6 | 77,9 |     |
|             | 11,5                       | 147            | 1,18  | MR 3I 101 - 28 × 250                       | 100 LB  | 6 | 77,9 |     |
|             | 11,8                       | 143            | 0,85  | MR 3I 100 - 24 × 200                       | 90 LB   | 4 | 118  |     |
|             | 11,8                       | 143            | 1,06  | MR 3I 101 - 24 × 200                       | 90 LB   | 4 | 118  |     |
|             | 12,1                       | 140            | 1,9   | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 74,4 |     |
|             | 12,1                       | 140            | 2,5   | MR 3I 126 - 28 × 250                       | 100 LB  | 6 | 74,4 |     |
|             | 14,6                       | 117            | 1,12  | MR 3I 100 - 24 × 200                       | 90 LB   | 4 | 96,2 |     |
|             | 14,6                       | 117            | 1,5   | MR 3I 101 - 24 × 200                       | 90 LB   | 4 | 96,2 |     |
|             | 14,7                       | 115            | 2,24  | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 61,2 |     |
|             | 15,8                       | 108            | 1,18  | MR 3I 100 - 28 × 250                       | 100 LB  | 6 | 57,1 |     |
|             | 15,8                       | 108            | 1,5   | MR 3I 101 - 28 × 250                       | 100 LB  | 6 | 57,1 |     |
|             | 16,3                       | 104            | 2,5   | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 55,3 |     |
|             | 16,9                       | 100            | 0,85  | MR 3I 81 - 28 × 250                        | 100 LB  | 6 | 53,2 |     |
|             | 17,9                       | 95             | 2,8   | MR 3I 125 - 28 × 250                       | 100 LB  | 6 | 50,2 |     |
|             | 18                         | 94             | 1,4   | MR 3I 100 - 24 × 200                       | 90 LB   | 4 | 77,9 |     |
|             | 18                         | 94             | 1,9   | MR 3I 101 - 24 × 200                       | 90 LB   | 4 | 77,9 |     |
|             | 20,7                       | 82             | 0,8   | MR 3I 80 - 24 × 200                        | 90 LB   | 4 | 67,5 |     |
|             | 20,7                       | 82             | 1,06  | MR 3I 81 - 24 × 200                        | 90 LB   | 4 | 67,5 |     |
|             | 20,9                       | 81             | 1,6   | MR 3I 100 - 28 × 250                       | 100 LB  | 6 | 43,1 |     |
|             | 20,9                       | 81             | 2,24  | MR 3I 101 - 28 × 250                       | 100 LB  | 6 | 43,1 |     |
|             | 21,6                       | 79             | 0,85  | MR 3I 80 - 28 × 250                        | 100 LB  | 6 | 41,7 |     |
|             | 21,6                       | 79             | 1,12  | MR 3I 81 - 28 × 250                        | 100 LB  | 6 | 41,7 |     |
|             | 22                         | 77             | 1,7   | MR 3I 100 - 24 × 200                       | 90 LB   | 4 | 63,8 |     |
|             | 22                         | 77             | 2,24  | MR 3I 101 - 24 × 200                       | 90 LB   | 4 | 63,8 |     |
|             | 23,8                       | 71             | 0,9   | MR 3I 80 - 24 × 200                        | 90 LB   | 4 | 58,8 |     |
|             | 23,8                       | 71             | 1,12  | MR 3I 81 - 24 × 200                        | 90 LB   | 4 | 58,8 |     |
|             | 24,1                       | 70             | 1,9   | MR 3I 100 - 24 × 200                       | 90 LB   | 4 | 58   |     |

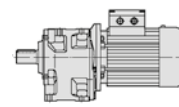
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |          |   |      | $i$ |
|-------------|----------------------------|----------------|-------|--------------------------------------------|----------|---|------|-----|
| 1)          |                            |                |       | 2)                                         |          |   |      |     |
| 1,85        | 24,1                       | 70             | 2,5   | MR 3I 101 - 24 × 200                       | 90 LB    | 4 | 58   |     |
|             | 26,4                       | 64             | 2     | MR 3I 100 - 24 × 200                       | 90 LB    | 4 | 53,1 |     |
|             | 26,4                       | 64             | 2,8   | MR 3I 101 - 24 × 200                       | 90 LB    | 4 | 53,1 |     |
|             | 26,5                       | 64             | 1,06  | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 52,9 |     |
|             | 26,5                       | 64             | 1,32  | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 52,9 |     |
|             | 28,9                       | 59             | 2,24  | MR 3I 100 - 28 × 250                       | 100 LB   | 6 | 31,2 |     |
|             | 29,9                       | 57             | 1,18  | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 46,9 |     |
|             | 29,9                       | 57             | 1,6   | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 46,9 |     |
|             | 30,5                       | 56             | 2,36  | MR 3I 100 - 24 × 200                       | 90 LB    | 4 | 45,9 |     |
|             | 32,9                       | 52             | 1,25  | MR 3I 80 - 28 × 250                        | 100 LB   | 6 | 27,4 |     |
|             | 32,9                       | 52             | 1,7   | MR 3I 81 - 28 × 250                        | 100 LB   | 6 | 27,4 |     |
|             | 35,2                       | 48,2           | 1,4   | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 39,8 |     |
|             | 35,2                       | 48,2           | 1,8   | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 39,8 |     |
|             | 36,3                       | 46,7           | 0,9   | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 38,5 |     |
|             | 36,4                       | 46,5           | 2,8   | MR 3I 100 - 24 × 200                       | 90 LB    | 4 | 38,4 |     |
|             | 40                         | 42,4           | 3     | MR 3I 100 - 24 × 200                       | 90 LB    | 4 | 35   |     |
|             | 40,2                       | 42,2           | 0,8   | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 34,8 |     |
|             | 40,2                       | 42,2           | 1,06  | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 34,8 |     |
|             | 40,3                       | 42,1           | 1,5   | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 34,8 |     |
|             | 40,3                       | 42,1           | 2     | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 34,8 |     |
|             | 43,8                       | 38,8           | 3,35  | MR 3I 100 - 24 × 200                       | 90 LB    | 4 | 32   |     |
|             | 44,2                       | 38,4           | 0,85  | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 31,7 |     |
|             | 44,2                       | 38,4           | 1,12  | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 31,7 |     |
|             | 45,5                       | 37,3           | 1,7   | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 30,8 |     |
|             | 45,5                       | 37,3           | 2,36  | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 30,8 |     |
|             | 48,1                       | 35,3           | 0,85  | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 29,1 |     |
|             | 48,1                       | 35,3           | 1,12  | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 29,1 |     |
|             | 48,7                       | 34,8           | 1,9   | MR 3I 80 - 28 × 250                        | 100 LB   | 6 | 18,5 |     |
|             | 48,7                       | 34,8           | 2,5   | MR 3I 81 - 28 × 250                        | 100 LB   | 6 | 18,5 |     |
|             | 53,6                       | 31,7           | 1     | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 26,1 |     |
|             | 53,6                       | 31,7           | 1,32  | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 26,1 |     |
|             | 53,6                       | 31,7           | 2     | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 26,1 |     |
|             | 53,6                       | 31,7           | 2,8   | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 26,1 |     |
|             | 55,4                       | 31,3           | 1,9   | MR 2I 80 - 28 × 250                        | 100 LB   | 6 | 16,3 |     |
|             | 57,1                       | 30,3           | 1,7   | MR 2I 80 - 24 × 200                        | 90 LB    | 4 | 24,5 |     |
|             | 57,7                       | 30             | 0,85  | MR 2I 63 - 19 × 200                        | 90 LB *  | 4 | 24,3 |     |
|             | 59,3                       | 28,6           | 1,12  | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 23,6 |     |
|             | 59,3                       | 28,6           | 1,5   | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 23,6 |     |
|             | 59,7                       | 28,4           | 2,24  | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 23,5 |     |
|             | 59,7                       | 28,4           | 3     | MR 3I 81 - 24 × 200                        | 90 LB    | 4 | 23,5 |     |
|             | 62,1                       | 27,9           | 2,12  | MR 2I 80 - 28 × 250                        | 100 LB   | 6 | 14,5 |     |
|             | 62,1                       | 27,9           | 2,8   | MR 2I 81 - 28 × 250                        | 100 LB   | 6 | 14,5 |     |
|             | 65,2                       | 26             | 1,25  | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 21,5 |     |
|             | 65,2                       | 26             | 1,6   | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 21,5 |     |
|             | 68,7                       | 24,7           | 2,65  | MR 3I 80 - 24 × 200                        | 90 LB    | 4 | 20,4 |     |
|             | 69,8                       | 24,8           | 2,36  | MR 2I 80 - 24 × 200                        | 90 LB    | 4 | 20,1 |     |
|             | 69,8                       | 24,8           | 2,8   | MR 2I 81 - 24 × 200                        | 90 LB    | 4 | 20,1 |     |
|             | 73,7                       | 23,5           | 1,18  | MR 2I 63 - 19 × 200                        | 90 LB *  | 4 | 19   |     |
|             | 73,7                       | 23,5           | 1,5   | MR 2I 64 - 19 × 200                        | 90 LB *  | 4 | 19   |     |
|             | 76,2                       | 22,3           | 1,4   | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 18,4 |     |
|             | 76,2                       | 22,3           | 1,9   | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 18,4 |     |
|             | 78,3                       | 22,1           | 2,65  | MR 2I 80 - 24 × 200                        | 90 LB    | 4 | 17,9 |     |
|             | 82,7                       | 20,9           | 1,4   | MR 2I 63 - 19 × 200                        | 90 LB *  | 4 | 16,9 |     |
|             | 82,7                       | 20,9           | 1,8   | MR 2I 64 - 19 × 200                        | 90 LB *  | 4 | 16,9 |     |
|             | 84,7                       | 20             | 1,6   | MR 3I 63 - 24 × 200                        | 90 LB    | 4 | 16,5 |     |
|             | 84,7                       | 20             | 2,12  | MR 3I 64 - 24 × 200                        | 90 LB    | 4 | 16,5 |     |
|             | 86,4                       | 20             | 1,25  | MR 2I 63 - 24 × 200                        | 90 LB    | 4 | 16,2 |     |
|             | 87,1                       | 19,9           | 3,15  | MR 2I 80 - 24 × 200                        | 90 LB    | 4 | 16,1 |     |
|             | 92,1                       | 18,8           | 1,6   | MR 2I 63 - 19 × 200                        | 90 LB *  | 4 | 15,2 |     |
|             | 92,1                       | 18,8           | 2,12  | MR 2I 64 - 19 × 200                        | 90 LB *  | 4 | 15,2 |     |
|             | 93,4                       | 18,5           | 0,95  | MR 2I 51 - 24 × 200                        | 100 LB * | 6 | 9,64 |     |
|             | 96,6                       | 17,9           | 3,35  | MR 2I 80 - 24 × 200                        | 90 LB    | 4 | 14,5 |     |
|             | 98,8                       | 17,5           | 1,7   | MR 2I 63 - 19 × 200                        | 90 LB *  | 4 | 14,2 |     |
|             | 98,8                       | 17,5           | 2,12  | MR 2I 64 - 19 × 200                        | 90 LB *  | 4 | 14,2 |     |
|             | 104                        | 16,7           | 0,85  | MR 2I 50 - 24 × 200                        | 100 LB * | 6 | 8,67 |     |
|             | 104                        | 16,7           | 1,12  | MR 2I 51 - 24 × 200                        | 100 LB * | 6 | 8,67 |     |
|             | 108                        | 16,1           | 3,75  | MR 2I 80 - 24 × 200                        | 90 LB    | 4 | 13   |     |
|             | 110                        | 15,7           | 1,9   | MR 2I 63 - 19 × 200                        | 90 LB *  | 4 | 12,7 |     |
|             | 110                        | 15,7           | 1,8   | MR 2I 63 - 24 × 200                        | 90 LB    | 4 | 12,7 |     |
|             | 110                        | 15,7           | 2,5   | MR 2I 64 - 19 × 200                        | 90 LB *  | 4 | 12,7 |     |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |          |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|----------|---|------|
| 1)          |                            |                |       | 2)                                         |            |          |   |      |
| 1.85        | 110                        | 15,7           | 2,12  | MR 2I 64                                   | - 24 × 200 | 90 LB    | 4 | 12,7 |
|             | 114                        | 15,1           | 0,85  | MR 2I 50                                   | - 19 × 200 | 90 LB *  | 4 | 12,2 |
|             | 114                        | 15,1           | 1,12  | MR 2I 51                                   | - 19 × 200 | 90 LB *  | 4 | 12,2 |
|             | 115                        | 15,1           | 0,95  | MR 2I 50                                   | - 24 × 200 | 100 LB * | 6 | 7,85 |
|             | 115                        | 15,1           | 1,32  | MR 2I 51                                   | - 24 × 200 | 100 LB * | 6 | 7,85 |
|             | 120                        | 14,5           | 0,85  | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 11,7 |
|             | 124                        | 14             | 2,12  | MR 2I 63                                   | - 24 × 200 | 90 LB    | 4 | 11,3 |
|             | 124                        | 14             | 2,65  | MR 2I 64                                   | - 24 × 200 | 90 LB    | 4 | 11,3 |
|             | 127                        | 13,6           | 1     | MR 2I 50                                   | - 19 × 200 | 90 LB *  | 4 | 11   |
|             | 127                        | 13,6           | 1,4   | MR 2I 51                                   | - 19 × 200 | 90 LB *  | 4 | 11   |
|             | 138                        | 12,6           | 2,36  | MR 2I 63                                   | - 24 × 200 | 90 LB    | 4 | 10,2 |
|             | 138                        | 12,6           | 3,15  | MR 2I 64                                   | - 24 × 200 | 90 LB    | 4 | 10,2 |
|             | 141                        | 12,3           | 1,6   | MR 2I 51                                   | - 19 × 200 | 90 LB *  | 4 | 9,96 |
|             | 145                        | 11,9           | 1,12  | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 9,64 |
|             | 145                        | 11,9           | 1,4   | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 9,64 |
|             | 153                        | 11,4           | 2,65  | MR 2I 63                                   | - 24 × 200 | 90 LB    | 4 | 9,18 |
|             | 162                        | 10,7           | 1,25  | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 8,67 |
|             | 162                        | 10,7           | 1,7   | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 8,67 |
|             | 168                        | 10,3           | 2,8   | MR 2I 63                                   | - 24 × 200 | 90 LB    | 4 | 8,34 |
|             | 169                        | 10,3           | 1,4   | MR 2I 50                                   | - 19 × 200 | 90 LB *  | 4 | 8,29 |
|             | 169                        | 10,3           | 2     | MR 2I 51                                   | - 19 × 200 | 90 LB *  | 4 | 8,29 |
|             | 178                        | 9,7            | 1,4   | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 7,85 |
|             | 178                        | 9,7            | 2     | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 7,85 |
|             | 196                        | 8,8            | 1,6   | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 7,14 |
|             | 196                        | 8,8            | 2,24  | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 7,14 |
|             | 196                        | 8,8            | 3,35  | MR 2I 63                                   | - 24 × 200 | 90 LB    | 4 | 7,14 |
|             | 214                        | 8,1            | 1,7   | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 6,53 |
|             | 214                        | 8,1            | 2,5   | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 6,53 |
|             | 218                        | 7,9            | 3,75  | MR 2I 63                                   | - 24 × 200 | 90 LB    | 4 | 6,42 |
|             | 248                        | 7              | 2     | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 5,65 |
|             | 248                        | 7              | 2,65  | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 5,65 |
|             | 274                        | 6,3            | 2,24  | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 5,11 |
|             | 274                        | 6,3            | 2,65  | MR 2I 51                                   | - 24 × 200 | 90 LB    | 4 | 5,11 |
|             | 342                        | 5,1            | 2,24  | MR 2I 50                                   | - 24 × 200 | 90 LB    | 4 | 4,1  |
| 2.2         | 7.68                       | 263            | 0,95  | MR 3I 125                                  | - 28 × 250 | 112 M    | 6 | 11,7 |
|             | 7.68                       | 263            | 1,12  | MR 3I 126                                  | - 28 × 250 | 112 M    | 6 | 11,7 |
|             | 7.68                       | 263            | 1,6   | MR 3I 140                                  | - 28 × 250 | 112 M    | 6 | 11,7 |
|             | 9.36                       | 216            | 1     | MR 3I 125                                  | - 28 × 250 | 100 LA   | 4 | 15,0 |
|             | 9.42                       | 214            | 2,24  | MR 3I 140                                  | - 28 × 250 | 112 M    | 6 | 95,5 |
|             | 9.6                        | 210            | 1,25  | MR 3I 125                                  | - 28 × 250 | 112 M    | 6 | 93,7 |
|             | 9.6                        | 210            | 1,6   | MR 3I 126                                  | - 28 × 250 | 112 M    | 6 | 93,7 |
|             | 11.5                       | 175            | 1     | MR 3I 101                                  | - 28 × 250 | 112 M    | 6 | 77,9 |
|             | 11.8                       | 170            | 0,9   | MR 3I 101                                  | - 24 × 200 | 90 LC    | 4 | 118  |
|             | 12                         | 169            | 1,4   | MR 3I 125                                  | - 28 × 250 | 100 LA   | 4 | 117  |
|             | 12                         | 169            | 1,8   | MR 3I 126                                  | - 28 × 250 | 100 LA   | 4 | 117  |
|             | 12                         | 169            | 2,5   | MR 3I 140                                  | - 28 × 250 | 100 LA   | 4 | 117  |
|             | 12.1                       | 167            | 1,6   | MR 3I 125                                  | - 28 × 250 | 112 M    | 6 | 74,4 |
|             | 12.1                       | 167            | 2,12  | MR 3I 126                                  | - 28 × 250 | 112 M    | 6 | 74,4 |
|             | 14.2                       | 142            | 0,95  | MR 3I 100                                  | - 28 × 250 | 112 M    | 6 | 63,2 |
|             | 14.2                       | 142            | 1,25  | MR 3I 101                                  | - 28 × 250 | 112 M    | 6 | 63,2 |
|             | 14.6                       | 138            | 0,9   | MR 3I 100                                  | - 28 × 250 | 100 LA   | 4 | 95,7 |
|             | 14.6                       | 139            | 0,95  | MR 3I 100                                  | - 24 × 200 | 90 LC    | 4 | 96,2 |
|             | 14.6                       | 138            | 1,06  | MR 3I 101                                  | - 28 × 250 | 100 LA   | 4 | 95,7 |
|             | 14.6                       | 139            | 1,25  | MR 3I 101                                  | - 24 × 200 | 90 LC    | 4 | 96,2 |
|             | 14.9                       | 135            | 2     | MR 3I 125                                  | - 28 × 250 | 100 LA   | 4 | 93,7 |
|             | 14.9                       | 135            | 2,5   | MR 3I 126                                  | - 28 × 250 | 100 LA   | 4 | 93,7 |
|             | 15.8                       | 128            | 1     | MR 3I 100                                  | - 28 × 250 | 112 M    | 6 | 57,1 |
|             | 15.8                       | 128            | 1,32  | MR 3I 101                                  | - 28 × 250 | 112 M    | 6 | 57,1 |
|             | 16.3                       | 124            | 2,12  | MR 3I 125                                  | - 28 × 250 | 112 M    | 6 | 55,3 |
|             | 16.3                       | 124            | 2,8   | MR 3I 126                                  | - 28 × 250 | 112 M    | 6 | 55,3 |
|             | 18                         | 112            | 1,18  | MR 3I 100                                  | - 28 × 250 | 100 LA   | 4 | 77,9 |
|             | 18                         | 112            | 1,18  | MR 3I 100                                  | - 24 × 200 | 90 LC    | 4 | 77,9 |
|             | 18                         | 112            | 1,6   | MR 3I 101                                  | - 28 × 250 | 100 LA   | 4 | 77,9 |
|             | 18                         | 112            | 1,6   | MR 3I 101                                  | - 24 × 200 | 90 LC    | 4 | 77,9 |
|             | 18.8                       | 107            | 2,5   | MR 3I 125                                  | - 28 × 250 | 100 LA   | 4 | 74,4 |
|             | 19.5                       | 104            | 2,5   | MR 3I 125                                  | - 28 × 250 | 112 M    | 6 | 46,2 |
|             | 20.7                       | 97             | 0,9   | MR 3I 81                                   | - 24 × 200 | 90 LC    | 4 | 67,5 |
|             | 20.9                       | 97             | 1,4   | MR 3I 100                                  | - 28 × 250 | 112 M    | 6 | 43,1 |

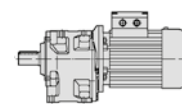
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$    | Riduttore - Motore<br>Gear reducer - Motor |            |        |      | $i$  |
|-------------|----------------------------|----------------|----------|--------------------------------------------|------------|--------|------|------|
| 1)          |                            |                |          | 2)                                         |            |        |      |      |
| 2,2         | 20,9                       | 97             | 1,9      | MR 3I 101                                  | - 28 × 250 | 112 M  | 6    | 43,1 |
|             | 21,1                       | 96             | 0,8      | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 66,4 |
|             | 21,6                       | 93             | 0,95     | MR 3I 81                                   | - 28 × 250 | 112 M  | 6    | 41,7 |
|             | 22                         | 92             | 1,4      | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 63,8 |
|             | 22                         | 92             | 1,9      | MR 3I 101                                  | - 24 × 200 | 90 LC  | 4    | 63,8 |
|             | 22,1                       | 91             | 1,4      | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 63,2 |
|             | 22,1                       | 91             | 1,9      | MR 3I 101                                  | - 28 × 250 | 100 LA | 4    | 63,2 |
|             | 22,9                       | 88             | 3        | MR 3I 125                                  | - 28 × 250 | 100 LA | 4    | 61,2 |
|             | 23,6                       | 85             | 0,95     | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 59,2 |
|             | 23,8                       | 85             | 0,95     | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 58,8 |
|             | 24,1                       | 84             | 1,6      | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 58   |
|             | 24,1                       | 84             | 2,12     | MR 3I 101                                  | - 24 × 200 | 90 LC  | 4    | 58   |
|             | 24,5                       | 82             | 1,5      | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 57,1 |
|             | 24,5                       | 82             | 2        | MR 3I 101                                  | - 28 × 250 | 100 LA | 4    | 57,1 |
|             | 25,3                       | 80             | 3,35     | MR 3I 125                                  | - 28 × 250 | 100 LA | 4    | 55,3 |
|             | 26,3                       | 77             | 0,85     | MR 3I 80                                   | - 28 × 250 | 100 LA | 4    | 53,2 |
|             | 26,3                       | 77             | 1,12     | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 53,2 |
|             | 26,4                       | 76             | 1,7      | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 53,1 |
|             | 26,4                       | 76             | 2,36     | MR 3I 101                                  | - 24 × 200 | 90 LC  | 4    | 53,1 |
|             | 26,5                       | 76             | 0,85     | MR 3I 80                                   | - 24 × 200 | 90 LC  | 4    | 52,9 |
|             | 26,5                       | 76             | 1,12     | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 52,9 |
|             | 27,1                       | 75             | 1,8      | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 51,7 |
|             | 27,1                       | 75             | 2,36     | MR 3I 101                                  | - 28 × 250 | 100 LA | 4    | 51,7 |
|             | 28,7                       | 70             | 0,95     | MR 3I 80                                   | - 28 × 250 | 112 M  | 6    | 31,3 |
|             | 28,7                       | 70             | 1,32     | MR 3I 81                                   | - 28 × 250 | 112 M  | 6    | 31,3 |
|             | 29,7                       | 68             | 1,9      | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 47,1 |
|             | 29,7                       | 68             | 2,65     | MR 3I 101                                  | - 28 × 250 | 100 LA | 4    | 47,1 |
|             | 29,9                       | 68             | 1        | MR 3I 80                                   | - 24 × 200 | 90 LC  | 4    | 46,9 |
|             | 29,9                       | 68             | 1,32     | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 46,9 |
|             | 30,2                       | 67             | 0,95     | MR 3I 80                                   | - 28 × 250 | 100 LA | 4    | 46,4 |
|             | 30,2                       | 67             | 1,18     | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 46,4 |
|             | 30,5                       | 66             | 2        | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 45,9 |
|             | 30,5                       | 66             | 2,8      | MR 3I 101                                  | - 24 × 200 | 90 LC  | 4    | 45,9 |
|             | 32,5                       | 62             | 2,12     | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 43,1 |
|             | 32,5                       | 62             | 2,8      | MR 3I 101                                  | - 28 × 250 | 100 LA | 4    | 43,1 |
|             | 32,9                       | 61             | 1,06     | MR 3I 80                                   | - 28 × 250 | 112 M  | 6    | 27,4 |
|             | 32,9                       | 61             | 1,4      | MR 3I 81                                   | - 28 × 250 | 112 M  | 6    | 27,4 |
|             | 33,6                       | 60             | 1,06     | MR 3I 80                                   | - 28 × 250 | 100 LA | 4    | 41,7 |
|             | 33,6                       | 60             | 1,4      | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 41,7 |
|             | 35,2                       | 57             | 1,18     | MR 3I 80                                   | - 24 × 200 | 90 LC  | 4    | 39,8 |
|             | 35,2                       | 57             | 1,6      | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 39,8 |
|             | 36,4                       | 55             | 2,36     | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 38,4 |
|             | 37,6                       | 54             | 2,5      | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 37,2 |
|             | 37,9                       | 53             | 1,25     | MR 3I 80                                   | - 28 × 250 | 100 LA | 4    | 36,9 |
|             | 37,9                       | 53             | 1,6      | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 36,9 |
|             | 38,4                       | 54             | 2        | MR 2I 100                                  | - 28 × 250 | 112 M  | 6    | 23,4 |
|             | 40                         | 50             | 2,5      | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 35   |
|             | 40,2                       | 50             | 0,85     | MR 3I 64                                   | - 24 × 200 | 90 LC  | 4    | 34,8 |
|             | 40,3                       | 50             | 1,32     | MR 3I 80                                   | - 24 × 200 | 90 LC  | 4    | 34,8 |
|             | 40,3                       | 50             | 1,7      | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 34,8 |
|             | 43,8                       | 46,1           | 2,8      | MR 3I 100                                  | - 24 × 200 | 90 LC  | 4    | 32   |
|             | 44,2                       | 45,6           | 0,95     | MR 3I 64                                   | - 24 × 200 | 90 LC  | 4    | 31,7 |
|             | 44,7                       | 45,1           | 1,4      | MR 3I 80                                   | - 28 × 250 | 100 LA | 4    | 31,3 |
|             | 44,7                       | 45,1           | 1,9      | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 31,3 |
|             | 44,9                       | 44,9           | 2,8      | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 31,2 |
|             | 45,3                       | 45,4           | 1,12     | MR 2I 80                                   | - 28 × 250 | 112 M  | 6    | 19,9 |
|             | 45,5                       | 44,4           | 1,5      | MR 3I 80                                   | - 24 × 200 | 90 LC  | 4    | 30,8 |
|             | 45,5                       | 44,4           | 2        | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 30,8 |
|             | 46,7                       | 44,1           | 2,65     | MR 2I 100                                  | - 28 × 250 | 112 M  | 6    | 19,3 |
|             | 48,1                       | 41,9           | 0,95     | MR 3I 64                                   | - 24 × 200 | 90 LC  | 4    | 29,1 |
|             | 49,3                       | 40,9           | 3,15     | MR 3I 100                                  | - 28 × 250 | 100 LA | 4    | 28,4 |
|             | 51,1                       | 39,4           | 1,6      | MR 3I 80                                   | - 28 × 250 | 100 LA | 4    | 27,4 |
|             | 51,1                       | 39,4           | 2,12     | MR 3I 81                                   | - 28 × 250 | 100 LA | 4    | 27,4 |
|             | 53,6                       | 37,6           | 0,85     | MR 3I 63                                   | - 24 × 200 | 90 LC  | 4    | 26,1 |
|             | 53,6                       | 37,6           | 1,12     | MR 3I 64                                   | - 24 × 200 | 90 LC  | 4    | 26,1 |
|             | 53,6                       | 37,7           | 1,7      | MR 3I 80                                   | - 24 × 200 | 90 LC  | 4    | 26,1 |
|             | 53,6                       | 37,7           | 2,24     | MR 3I 81                                   | - 24 × 200 | 90 LC  | 4    | 26,1 |
| 55,4        | 37,2                       | 1,6            | MR 2I 80 | - 28 × 250                                 | 112 M      | 6      | 16,3 |      |
| 55,4        | 37,2                       | 1,9            | MR 2I 81 | - 28 × 250                                 | 112 M      | 6      | 16,3 |      |
| 57,1        | 36,1                       | 1,4            | MR 2I 80 | - 24 × 200                                 | 90 LC      | 4      | 24,5 |      |
| 57,7        | 35                         | 1,8            | MR 3I 80 | - 28 × 250                                 | 100 LA     | 4      | 24,3 |      |
| 57,7        | 35                         | 2,5            | MR 3I 81 | - 28 × 250                                 | 100 LA     | 4      | 24,3 |      |





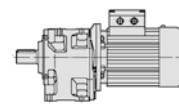
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |                |         |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|----------------|---------|---|------|
| 1)          |                            |                |       | 2)                                         |                |         |   |      |
| 2,2         | 59,3                       | 34             | 0,95  | MR 31                                      | 63 - 24 × 200  | 90 LC   | 4 | 23,6 |
|             | 59,3                       | 34             | 1,25  | MR 31                                      | 64 - 24 × 200  | 90 LC   | 4 | 23,6 |
|             | 59,7                       | 33,8           | 1,9   | MR 31                                      | 80 - 24 × 200  | 90 LC   | 4 | 23,5 |
|             | 59,7                       | 33,8           | 2,5   | MR 31                                      | 81 - 24 × 200  | 90 LC   | 4 | 23,5 |
|             | 59,8                       | 34,5           | 3,15  | MR 21                                      | 100 - 28 × 250 | 100 LA  | 4 | 23,4 |
|             | 65,2                       | 30,9           | 1     | MR 31                                      | 63 - 24 × 200  | 90 LC   | 4 | 21,5 |
|             | 65,2                       | 30,9           | 1,4   | MR 31                                      | 64 - 24 × 200  | 90 LC   | 4 | 21,5 |
|             | 68                         | 29,7           | 2,12  | MR 31                                      | 80 - 28 × 250  | 100 LA  | 4 | 20,6 |
|             | 68                         | 29,7           | 2,8   | MR 31                                      | 81 - 28 × 250  | 100 LA  | 4 | 20,6 |
|             | 68,7                       | 29,4           | 2,24  | MR 31                                      | 80 - 24 × 200  | 90 LC   | 4 | 20,4 |
|             | 69,1                       | 29,8           | 2,12  | MR 21                                      | 80 - 28 × 250  | 112 M   | 6 | 13   |
|             | 69,1                       | 29,8           | 2,8   | MR 21                                      | 81 - 28 × 250  | 112 M   | 6 | 13   |
|             | 69,8                       | 29,5           | 1,9   | MR 21                                      | 80 - 24 × 200  | 90 LC   | 4 | 20,1 |
|             | 69,8                       | 29,5           | 2,36  | MR 21                                      | 81 - 24 × 200  | 90 LC   | 4 | 20,1 |
|             | 70,5                       | 29,2           | 0,85  | MR 21                                      | 63 - 28 × 250  | 112 M   | 6 | 12,8 |
|             | 70,5                       | 29,2           | 1,7   | MR 21                                      | 80 - 28 × 250  | 100 LA  | 4 | 19,9 |
|             | 75,7                       | 26,6           | 2,36  | MR 31                                      | 80 - 28 × 250  | 100 LA  | 4 | 18,5 |
|             | 76,2                       | 26,5           | 1,18  | MR 31                                      | 63 - 24 × 200  | 90 LC   | 4 | 18,4 |
|             | 76,2                       | 26,5           | 1,6   | MR 31                                      | 64 - 24 × 200  | 90 LC   | 4 | 18,4 |
|             | 78,3                       | 26,3           | 2,24  | MR 21                                      | 80 - 24 × 200  | 90 LC   | 4 | 17,9 |
|             | 84,7                       | 23,8           | 1,32  | MR 31                                      | 63 - 24 × 200  | 90 LC   | 4 | 16,5 |
|             | 84,7                       | 23,8           | 1,8   | MR 31                                      | 64 - 24 × 200  | 90 LC   | 4 | 16,5 |
|             | 86,2                       | 23,9           | 2,36  | MR 21                                      | 80 - 28 × 250  | 100 LA  | 4 | 16,3 |
|             | 86,2                       | 23,9           | 2,8   | MR 21                                      | 81 - 28 × 250  | 100 LA  | 4 | 16,3 |
|             | 86,4                       | 23,8           | 1,06  | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 16,2 |
|             | 87,1                       | 23,6           | 2,65  | MR 21                                      | 80 - 24 × 200  | 90 LC   | 4 | 16,1 |
|             | 87,2                       | 23,1           | 2,8   | MR 31                                      | 80 - 28 × 250  | 100 LA  | 4 | 16,1 |
|             | 90                         | 22,9           | 1,25  | MR 21                                      | 63 - 28 × 250  | 112 M   | 6 | 10   |
|             | 90                         | 22,9           | 1,5   | MR 21                                      | 64 - 28 × 250  | 112 M   | 6 | 10   |
|             | 96,6                       | 21,3           | 2,8   | MR 21                                      | 80 - 28 × 250  | 100 LA  | 4 | 14,5 |
|             | 96,6                       | 21,3           | 2,8   | MR 21                                      | 80 - 24 × 200  | 90 LC   | 4 | 14,5 |
|             | 101                        | 20,4           | 1,4   | MR 21                                      | 63 - 28 × 250  | 112 M   | 6 | 8,91 |
|             | 101                        | 20,4           | 1,8   | MR 21                                      | 64 - 28 × 250  | 112 M   | 6 | 8,91 |
|             | 108                        | 19,1           | 3,15  | MR 21                                      | 80 - 28 × 250  | 100 LA  | 4 | 13   |
|             | 110                        | 18,8           | 1,32  | MR 21                                      | 63 - 28 × 250  | 100 LA  | 4 | 12,8 |
|             | 110                        | 18,7           | 1,5   | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 12,7 |
|             | 110                        | 18,7           | 1,8   | MR 21                                      | 64 - 24 × 200  | 90 LC   | 4 | 12,7 |
|             | 113                        | 18,3           | 1,7   | MR 21                                      | 63 - 28 × 250  | 112 M   | 6 | 8    |
|             | 113                        | 18,3           | 2,12  | MR 21                                      | 64 - 28 × 250  | 112 M   | 6 | 8    |
|             | 114                        | 18             | 0,95  | MR 21                                      | 51 - 19 × 200  | 90 LC * | 4 | 12,2 |
|             | 124                        | 16,5           | 1,8   | MR 21                                      | 63 - 28 × 250  | 112 M   | 6 | 7,23 |
|             | 124                        | 16,6           | 1,7   | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 11,3 |
|             | 124                        | 16,5           | 2,5   | MR 21                                      | 64 - 28 × 250  | 112 M   | 6 | 7,23 |
|             | 124                        | 16,6           | 2,24  | MR 21                                      | 64 - 24 × 200  | 90 LC   | 4 | 11,3 |
|             | 127                        | 16,2           | 0,85  | MR 21                                      | 50 - 19 × 200  | 90 LC * | 4 | 11   |
|             | 127                        | 16,2           | 1,12  | MR 21                                      | 51 - 19 × 200  | 90 LC * | 4 | 11   |
|             | 138                        | 14,9           | 2     | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 10,2 |
|             | 138                        | 14,9           | 2,65  | MR 21                                      | 64 - 24 × 200  | 90 LC   | 4 | 10,2 |
|             | 140                        | 14,7           | 1,9   | MR 21                                      | 63 - 28 × 250  | 100 LA  | 4 | 10   |
|             | 140                        | 14,7           | 2,24  | MR 21                                      | 64 - 28 × 250  | 100 LA  | 4 | 10   |
|             | 141                        | 14,6           | 1,32  | MR 21                                      | 51 - 19 × 200  | 90 LC * | 4 | 9,96 |
|             | 145                        | 14,2           | 0,9   | MR 21                                      | 50 - 24 × 200  | 90 LC   | 4 | 9,64 |
|             | 145                        | 14,2           | 1,18  | MR 21                                      | 51 - 24 × 200  | 90 LC   | 4 | 9,64 |
|             | 153                        | 13,5           | 2,24  | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 9,18 |
|             | 153                        | 13,5           | 3     | MR 21                                      | 64 - 24 × 200  | 90 LC   | 4 | 9,18 |
|             | 157                        | 13,1           | 2,12  | MR 21                                      | 63 - 28 × 250  | 100 LA  | 4 | 8,91 |
|             | 157                        | 13,1           | 2,8   | MR 21                                      | 64 - 28 × 250  | 100 LA  | 4 | 8,91 |
|             | 162                        | 12,7           | 1,06  | MR 21                                      | 50 - 24 × 200  | 90 LC   | 4 | 8,67 |
|             | 162                        | 12,7           | 1,4   | MR 21                                      | 51 - 24 × 200  | 90 LC   | 4 | 8,67 |
|             | 168                        | 12,3           | 2,5   | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 8,34 |
|             | 169                        | 12,2           | 1,18  | MR 21                                      | 50 - 19 × 200  | 90 LC * | 4 | 8,29 |
|             | 169                        | 12,2           | 1,7   | MR 21                                      | 51 - 19 × 200  | 90 LC * | 4 | 8,29 |
|             | 175                        | 11,8           | 2,5   | MR 21                                      | 63 - 28 × 250  | 100 LA  | 4 | 8    |
|             | 175                        | 11,8           | 3,35  | MR 21                                      | 64 - 28 × 250  | 100 LA  | 4 | 8    |
|             | 178                        | 11,5           | 1,18  | MR 21                                      | 50 - 24 × 200  | 90 LC   | 4 | 7,85 |
|             | 178                        | 11,5           | 1,7   | MR 21                                      | 51 - 24 × 200  | 90 LC   | 4 | 7,85 |
|             | 194                        | 10,6           | 2,8   | MR 21                                      | 63 - 28 × 250  | 100 LA  | 4 | 7,23 |
|             | 196                        | 10,5           | 1,32  | MR 21                                      | 50 - 24 × 200  | 90 LC   | 4 | 7,14 |
|             | 196                        | 10,5           | 1,9   | MR 21                                      | 51 - 24 × 200  | 90 LC   | 4 | 7,14 |
|             | 196                        | 10,5           | 2,8   | MR 21                                      | 63 - 24 × 200  | 90 LC   | 4 | 7,14 |
|             | 213                        | 9,7            | 3     | MR 21                                      | 63 - 28 × 250  | 100 LA  | 4 | 6,57 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |                |        |      | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|----------------|--------|------|------|
| 1)          |                            |                |       | 2)                                         |                |        |      |      |
| 2,2         | 214                        | 9,6            | 1,4   | MR 21                                      | 50 - 24 × 200  | 90 LC  | 4    | 6,53 |
|             | 214                        | 9,6            | 2,12  | MR 21                                      | 51 - 24 × 200  | 90 LC  | 4    | 6,53 |
|             | 218                        | 9,4            | 3,15  | MR 21                                      | 63 - 24 × 200  | 90 LC  | 4    | 6,42 |
|             | 248                        | 8,3            | 1,7   | MR 21                                      | 50 - 24 × 200  | 90 LC  | 4    | 5,65 |
|             | 248                        | 8,3            | 2,24  | MR 21                                      | 51 - 24 × 200  | 90 LC  | 4    | 5,65 |
|             | 249                        | 8,3            | 3,55  | MR 21                                      | 63 - 28 × 250  | 100 LA | 4    | 5,63 |
|             | 274                        | 7,5            | 1,9   | MR 21                                      | 50 - 24 × 200  | 90 LC  | 4    | 5,11 |
|             | 274                        | 7,5            | 2,24  | MR 21                                      | 51 - 24 × 200  | 90 LC  | 4    | 5,11 |
|             | 277                        | 7,4            | 4     | MR 21                                      | 63 - 28 × 250  | 100 LA | 4    | 5,06 |
|             | 342                        | 6              | 1,9   | MR 21                                      | 50 - 24 × 200  | 90 LC  | 4    | 4,1  |
|             | 342                        | 6              | 2,24  | MR 21                                      | 51 - 24 × 200  | 90 LC  | 4    | 4,1  |
|             | 392                        | 5,3            | 2,5   | MR 21                                      | 50 - 24 × 200  | 90 LA  | 2    | 7,14 |
|             | 392                        | 5,3            | 3,55  | MR 21                                      | 51 - 24 × 200  | 90 LA  | 2    | 7,14 |
|             | 429                        | 4,8            | 2,8   | MR 21                                      | 50 - 24 × 200  | 90 LA  | 2    | 6,53 |
|             | 496                        | 4,15           | 3,15  | MR 21                                      | 50 - 24 × 200  | 90 LA  | 2    | 5,65 |
|             | 548                        | 3,76           | 3,55  | MR 21                                      | 50 - 24 × 200  | 90 LA  | 2    | 5,11 |
|             | 684                        | 3,01           | 3,75  | MR 21                                      | 50 - 24 × 200  | 90 LA  | 2    | 4,1  |
| 3           | 7,31                       | 376            | 2,24  | MR 31                                      | 180 - 38 × 300 | 132 S  | 6    | 123  |
|             | 7,54                       | 365            | 1,6   | MR 31                                      | 160 - 38 × 300 | 132 S  | 6    | 119  |
|             | 7,68                       | 358            | 0,85  | MR 31                                      | 126 - 28 × 250 | 112 MC | 6    | 117  |
|             | 7,68                       | 358            | 1,18  | MR 31                                      | 140 - 28 × 250 | 112 MC | 6    | 117  |
|             | 8,97                       | 306            | 2,24  | MR 31                                      | 160 - 38 × 300 | 132 S  | 6    | 100  |
|             | 9,42                       | 292            | 1,7   | MR 31                                      | 140 - 28 × 250 | 112 MC | 6    | 95,5 |
|             | 9,6                        | 286            | 0,95  | MR 31                                      | 125 - 28 × 250 | 112 MC | 6    | 93,7 |
|             | 9,6                        | 286            | 1,18  | MR 31                                      | 126 - 28 × 250 | 112 MC | 6    | 93,7 |
|             | 10,7                       | 256            | 2,65  | MR 31                                      | 160 - 38 × 300 | 132 S  | 6    | 83,8 |
|             | 11,9                       | 232            | 2,12  | MR 31                                      | 140 - 28 × 250 | 112 MC | 6    | 75,8 |
|             | 12                         | 230            | 1,06  | MR 31                                      | 125 - 28 × 250 | 112 MA | 4    | 117  |
|             | 12                         | 230            | 1,32  | MR 31                                      | 126 - 28 × 250 | 112 MA | 4    | 117  |
|             | 12                         | 230            | 1,8   | MR 31                                      | 140 - 28 × 250 | 112 MA | 4    | 117  |
|             | 12,1                       | 227            | 1,18  | MR 31                                      | 125 - 28 × 250 | 112 MC | 6    | 74,4 |
|             | 12,1                       | 227            | 1,5   | MR 31                                      | 126 - 28 × 250 | 112 MC | 6    | 74,4 |
|             | 14,2                       | 193            | 0,9   | MR 31                                      | 101 - 28 × 250 | 112 MC | 6    | 63,2 |
|             | 14,6                       | 188            | 0,8   | MR 31                                      | 101 - 28 × 250 | 112 MA | 4    | 95,7 |
|             | 14,7                       | 188            | 2,65  | MR 31                                      | 140 - 28 × 250 | 112 MA | 4    | 95,5 |
|             | 14,9                       | 184            | 1,4   | MR 31                                      | 125 - 28 × 250 | 112 MA | 4    | 93,7 |
|             | 14,9                       | 184            | 1,9   | MR 31                                      | 126 - 28 × 250 | 112 MA | 4    | 93,7 |
|             | 15,8                       | 175            | 0,95  | MR 31                                      | 101 - 28 × 250 | 112 MC | 6    | 57,1 |
|             | 16,2                       | 170            | 3     | MR 31                                      | 140 - 28 × 250 | 112 MC | 6    | 55,7 |
|             | 16,3                       | 169            | 1,6   | MR 31                                      | 125 - 28 × 250 | 112 MC | 6    | 55,3 |
|             | 16,3                       | 169            | 2,12  | MR 31                                      | 126 - 28 × 250 | 112 MC | 6    | 55,3 |
|             | 17,7                       | 155            | 3,15  | MR 31                                      | 140 - 28 × 250 | 112 MC | 6    | 50,8 |
|             | 18                         | 153            | 0,85  | MR 31                                      | 100 - 28 × 250 | 112 MA | 4    | 77,9 |
|             | 18                         | 153            | 1,12  | MR 31                                      | 101 - 28 × 250 | 112 MA | 4    | 77,9 |
|             | 18,8                       | 146            | 1,8   | MR 31                                      | 125 - 28 × 250 | 112 MA | 4    | 74,4 |
|             | 18,8                       | 146            | 2,36  | MR 31                                      | 126 - 28 × 250 | 112 MA | 4    | 74,4 |
|             | 19,1                       | 144            | 0,9   | MR 31                                      | 100 - 28 × 250 | 112 MC | 6    | 47,1 |
|             | 19,1                       | 144            | 1,25  | MR 31                                      | 101 - 28 × 250 | 112 MC | 6    | 47,1 |
|             | 19,3                       | 143            | 3,15  | MR 31                                      | 140 - 28 × 250 | 112 MC | 6    | 46,7 |
|             | 19,5                       | 141            | 1,8   | MR 31                                      | 125 - 28 × 250 | 112 MC | 6    | 46,2 |
|             | 19,5                       | 141            | 2,36  | MR 31                                      | 126 - 28 × 250 | 112 MC | 6    | 46,2 |
|             | 19,7                       | 140            | 0,9   | MR 31                                      | 100 - 38 × 300 | 132 S  | 6    | 45,7 |
|             | 19,7                       | 140            | 1,18  | MR 31                                      | 101 - 38 × 300 | 132 S  | 6    | 45,7 |
| 20,2        | 136                        | 1,9            | MR 31 | 125 - 38 × 300                             | 132 S          | 6      | 44,5 |      |
| 20,9        | 132                        | 1              | MR 31 | 100 - 28 × 250                             | 112 MC         | 6      | 43,1 |      |
| 20,9        | 132                        | 1,4            | MR 31 | 101 - 28 × 250                             | 112 MC         | 6      | 43,1 |      |
| 22,1        | 124                        | 1,06           | MR 31 | 100 - 28 × 250                             | 112 MA         | 4      | 63,2 |      |
| 22,1        | 124                        | 1,4            | MR 31 | 101 - 28 × 250                             | 112 MA         | 4      | 63,2 |      |
| 22,9        | 120                        | 2,24           | MR 31 | 125 - 28 × 250                             | 112 MA         | 4      | 61,2 |      |
| 22,9        | 120                        | 2,8            | MR 31 | 126 - 28 × 250                             | 112 MA         | 4      | 61,2 |      |
| 24,2        | 114                        | 1,6            | MR 31 | 101 - 28 × 250                             | 112 MC         | 6      | 37,2 |      |
| 24,5        | 112                        | 1,12           | MR 31 | 100 - 28 × 250                             | 112 MA         | 4      | 57,1 |      |
| 24,5        | 112                        | 1,5            | MR 31 | 101 - 28 × 250                             | 112 MA         | 4      | 57,1 |      |
| 25,3        | 109                        | 2,5            | MR 31 | 125 - 28 × 250                             | 112 MA         | 4      | 55,3 |      |
| 26,3        | 105                        | 0,85           | MR 31 | 81 - 28 × 250                              | 112 MA         | 4      | 53,2 |      |
| 27,1        | 102                        | 1,32           | MR 31 | 100 - 28 × 250                             | 112 MA         | 4      | 51,7 |      |
| 27,1        | 102                        | 1,7            | MR 31 | 101 - 28 × 250                             | 112 MA         | 4      | 51,7 |      |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |          |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|----------|---|------|
| 1)          |                            |                |       | 2)                                         |            |          |   |      |
| 3           | 27,9                       | 99             | 2,65  | MR 3I 125                                  | - 28 × 250 | 112 MA   | 4 | 50,2 |
|             | 29,7                       | 93             | 1,4   | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 47,1 |
|             | 29,7                       | 93             | 1,9   | MR 3I 101                                  | - 28 × 250 | 112 MA   | 4 | 47,1 |
|             | 29,9                       | 92             | 0,95  | MR 3I 81                                   | - 24 × 200 | 112 MA * | 4 | 46,9 |
|             | 30,2                       | 91             | 0,9   | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 46,4 |
|             | 30,3                       | 91             | 2,8   | MR 3I 125                                  | - 28 × 250 | 112 MA   | 4 | 46,2 |
|             | 32,5                       | 85             | 1,5   | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 43,1 |
|             | 32,5                       | 85             | 2,12  | MR 3I 101                                  | - 28 × 250 | 112 MA   | 4 | 43,1 |
|             | 32,9                       | 84             | 1     | MR 3I 81                                   | - 28 × 250 | 112 MC   | 6 | 27,4 |
|             | 33,6                       | 82             | 0,8   | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 41,7 |
|             | 33,6                       | 82             | 1,06  | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 41,7 |
|             | 33,8                       | 81             | 3,15  | MR 3I 125                                  | - 28 × 250 | 112 MA   | 4 | 41,5 |
|             | 34,7                       | 79             | 1,6   | MR 3I 100                                  | - 28 × 250 | 112 MC   | 6 | 26   |
|             | 34,7                       | 79             | 2,24  | MR 3I 101                                  | - 28 × 250 | 112 MC   | 6 | 26   |
|             | 37,1                       | 74             | 0,9   | MR 3I 80                                   | - 28 × 250 | 112 MC   | 6 | 24,3 |
|             | 37,1                       | 74             | 1,18  | MR 3I 81                                   | - 28 × 250 | 112 MC   | 6 | 24,3 |
|             | 37,3                       | 74             | 3,55  | MR 3I 125                                  | - 28 × 250 | 112 MA   | 4 | 37,5 |
|             | 37,6                       | 73             | 1,8   | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 37,2 |
|             | 37,6                       | 73             | 2,5   | MR 3I 101                                  | - 28 × 250 | 112 MA   | 4 | 37,2 |
|             | 37,9                       | 73             | 0,9   | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 36,9 |
|             | 37,9                       | 73             | 1,18  | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 36,9 |
|             | 38,4                       | 73             | 1,5   | MR 2I 100                                  | - 28 × 250 | 112 MC   | 6 | 23,4 |
|             | 44,7                       | 62             | 1,06  | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 31,3 |
|             | 44,7                       | 62             | 1,4   | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 31,3 |
|             | 44,9                       | 61             | 2,12  | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 31,2 |
|             | 44,9                       | 61             | 2,8   | MR 3I 101                                  | - 28 × 250 | 112 MA   | 4 | 31,2 |
|             | 46,7                       | 60             | 1,9   | MR 2I 100                                  | - 28 × 250 | 112 MC   | 6 | 19,3 |
|             | 46,7                       | 60             | 2,36  | MR 2I 101                                  | - 28 × 250 | 112 MC   | 6 | 19,3 |
|             | 49,3                       | 56             | 2,24  | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 28,4 |
|             | 49,3                       | 56             | 3,15  | MR 3I 101                                  | - 28 × 250 | 112 MA   | 4 | 28,4 |
|             | 51,1                       | 54             | 1,18  | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 27,4 |
|             | 51,1                       | 54             | 1,5   | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 27,4 |
|             | 53,6                       | 51             | 0,8   | MR 3I 64                                   | - 24 × 200 | 112 MA * | 4 | 26,1 |
|             | 53,9                       | 51             | 2,5   | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 26   |
|             | 55,4                       | 51             | 1,12  | MR 2I 80                                   | - 28 × 250 | 112 MC   | 6 | 16,3 |
|             | 55,4                       | 51             | 1,4   | MR 2I 81                                   | - 28 × 250 | 112 MC   | 6 | 16,3 |
|             | 57,1                       | 49,2           | 1,06  | MR 2I 80                                   | - 24 × 200 | 112 MA * | 4 | 24,5 |
|             | 57,7                       | 47,7           | 1,32  | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 24,3 |
|             | 57,7                       | 47,7           | 1,8   | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 24,3 |
|             | 59,3                       | 46,4           | 0,9   | MR 3I 64                                   | - 24 × 200 | 112 MA * | 4 | 23,6 |
|             | 59,8                       | 47             | 2,24  | MR 2I 100                                  | - 28 × 250 | 112 MA   | 4 | 23,4 |
|             | 62,1                       | 45,2           | 1,32  | MR 2I 80                                   | - 28 × 250 | 112 MC   | 6 | 14,5 |
|             | 62,1                       | 45,2           | 1,7   | MR 2I 81                                   | - 28 × 250 | 112 MC   | 6 | 14,5 |
|             | 62,4                       | 44,1           | 2,8   | MR 3I 100                                  | - 28 × 250 | 112 MA   | 4 | 22,4 |
|             | 65,2                       | 42,2           | 1     | MR 3I 64                                   | - 24 × 200 | 112 MA * | 4 | 21,5 |
|             | 68                         | 40,5           | 1,6   | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 20,6 |
|             | 68                         | 40,5           | 2,12  | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 20,6 |
|             | 69,8                       | 40,2           | 1,4   | MR 2I 80                                   | - 24 × 200 | 112 MA * | 4 | 20,1 |
|             | 69,8                       | 40,2           | 1,7   | MR 2I 81                                   | - 24 × 200 | 112 MA * | 4 | 20,1 |
|             | 70,5                       | 39,8           | 1,32  | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4 | 19,9 |
|             | 72,6                       | 38,7           | 3     | MR 2I 100                                  | - 28 × 250 | 112 MA   | 4 | 19,3 |
|             | 75,7                       | 36,3           | 1,8   | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 18,5 |
|             | 75,7                       | 36,3           | 2,36  | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 18,5 |
|             | 76,2                       | 36,1           | 0,9   | MR 3I 63                                   | - 24 × 200 | 112 MA * | 4 | 18,4 |
|             | 76,2                       | 36,1           | 1,18  | MR 3I 64                                   | - 24 × 200 | 112 MA * | 4 | 18,4 |
|             | 78,3                       | 35,9           | 2,12  | MR 2I 81                                   | - 24 × 200 | 112 MA * | 4 | 17,9 |
|             | 80,8                       | 34,8           | 3,35  | MR 2I 100                                  | - 28 × 250 | 112 MA   | 4 | 17,3 |
|             | 84,7                       | 32,5           | 1     | MR 3I 63                                   | - 24 × 200 | 112 MA * | 4 | 16,5 |
|             | 84,7                       | 32,5           | 1,32  | MR 3I 64                                   | - 24 × 200 | 112 MA * | 4 | 16,5 |
|             | 86,2                       | 32,6           | 1,7   | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4 | 16,3 |
|             | 86,2                       | 32,6           | 2,12  | MR 2I 81                                   | - 28 × 250 | 112 MA   | 4 | 16,3 |
|             | 87,1                       | 32,2           | 1,9   | MR 2I 80                                   | - 24 × 200 | 112 MA * | 4 | 16,1 |
|             | 87,1                       | 32,2           | 2,5   | MR 2I 81                                   | - 24 × 200 | 112 MA * | 4 | 16,1 |
|             | 87,2                       | 31,6           | 2     | MR 3I 80                                   | - 28 × 250 | 112 MA   | 4 | 16,1 |
|             | 87,2                       | 31,6           | 2,65  | MR 3I 81                                   | - 28 × 250 | 112 MA   | 4 | 16,1 |
|             | 90                         | 31,2           | 0,9   | MR 2I 63                                   | - 28 × 250 | 112 MC   | 6 | 10   |
|             | 90                         | 31,2           | 1,12  | MR 2I 64                                   | - 28 × 250 | 112 MC   | 6 | 10   |
|             | 96,6                       | 29,1           | 2     | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4 | 14,5 |
|             | 96,6                       | 29,1           | 2,5   | MR 2I 81                                   | - 28 × 250 | 112 MA   | 4 | 14,5 |
|             | 101                        | 27,8           | 1,06  | MR 2I 63                                   | - 28 × 250 | 112 MC   | 6 | 8,91 |
|             | 101                        | 27,8           | 1,32  | MR 2I 64                                   | - 28 × 250 | 112 MC   | 6 | 8,91 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$     | Riduttore - Motore<br>Gear reducer - Motor |            |          |      | $i$  |
|-------------|----------------------------|----------------|-----------|--------------------------------------------|------------|----------|------|------|
| 1)          |                            |                |           | 2)                                         |            |          |      |      |
| 3           | 108                        | 26,1           | 2,36      | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4    | 13   |
|             | 108                        | 26,1           | 3         | MR 2I 81                                   | - 28 × 250 | 112 MA   | 4    | 13   |
|             | 110                        | 25,5           | 1,12      | MR 2I 63                                   | - 24 × 200 | 112 MA * | 4    | 12,7 |
|             | 110                        | 25,6           | 1         | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 12,8 |
|             | 110                        | 25,5           | 1,32      | MR 2I 64                                   | - 24 × 200 | 112 MA * | 4    | 12,7 |
|             | 113                        | 25             | 1,18      | MR 2I 63                                   | - 28 × 250 | 112 MC   | 6    | 8    |
|             | 113                        | 25             | 1,6       | MR 2I 64                                   | - 28 × 250 | 112 MC   | 6    | 8    |
|             | 119                        | 23,6           | 2,5       | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4    | 11,8 |
|             | 124                        | 22,6           | 1,32      | MR 2I 63                                   | - 28 × 250 | 112 MC   | 6    | 7,23 |
|             | 124                        | 22,7           | 1,25      | MR 2I 63                                   | - 24 × 200 | 112 MA * | 4    | 11,3 |
|             | 124                        | 22,6           | 1,8       | MR 2I 64                                   | - 28 × 250 | 112 MC   | 6    | 7,23 |
|             | 124                        | 22,7           | 1,6       | MR 2I 64                                   | - 24 × 200 | 112 MA * | 4    | 11,3 |
|             | 133                        | 21,2           | 2,8       | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4    | 10,6 |
|             | 137                        | 20,5           | 2         | MR 2I 64                                   | - 28 × 250 | 112 MC   | 6    | 6,57 |
|             | 138                        | 20,4           | 1,5       | MR 2I 63                                   | - 24 × 200 | 112 MA * | 4    | 10,2 |
|             | 138                        | 20,4           | 1,9       | MR 2I 64                                   | - 24 × 200 | 112 MA * | 4    | 10,2 |
|             | 140                        | 20,1           | 1,4       | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 10   |
|             | 140                        | 20,1           | 1,7       | MR 2I 64                                   | - 28 × 250 | 112 MA   | 4    | 10   |
|             | 145                        | 19,3           | 0,9       | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 9,64 |
|             | 150                        | 18,8           | 3,15      | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4    | 9,36 |
|             | 157                        | 17,9           | 1,6       | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 8,91 |
|             | 157                        | 17,9           | 2         | MR 2I 64                                   | - 28 × 250 | 112 MA   | 4    | 8,91 |
|             | 162                        | 17,4           | 0,8       | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 8,67 |
|             | 162                        | 17,4           | 1,06      | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 8,67 |
|             | 168                        | 16,7           | 1,8       | MR 2I 63                                   | - 24 × 200 | 112 MA * | 4    | 8,34 |
|             | 168                        | 16,7           | 2,36      | MR 2I 64                                   | - 24 × 200 | 112 MA * | 4    | 8,34 |
|             | 175                        | 16             | 1,8       | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 8    |
|             | 175                        | 16             | 2,36      | MR 2I 64                                   | - 28 × 250 | 112 MA   | 4    | 8    |
|             | 176                        | 15,9           | 3,75      | MR 2I 80                                   | - 28 × 250 | 112 MA   | 4    | 7,95 |
|             | 178                        | 15,7           | 0,9       | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 7,85 |
|             | 178                        | 15,7           | 1,25      | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 7,85 |
|             | 194                        | 14,5           | 2         | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 7,23 |
|             | 194                        | 14,5           | 2,65      | MR 2I 64                                   | - 28 × 250 | 112 MA   | 4    | 7,23 |
|             | 196                        | 14,3           | 0,95      | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 7,14 |
|             | 196                        | 14,3           | 1,4       | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 7,14 |
|             | 213                        | 13,2           | 2,24      | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 6,57 |
|             | 213                        | 13,2           | 3         | MR 2I 64                                   | - 28 × 250 | 112 MA   | 4    | 6,57 |
|             | 214                        | 13,1           | 1,06      | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 6,53 |
|             | 214                        | 13,1           | 1,5       | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 6,53 |
|             | 225                        | 12,5           | 2         | MR 2I 63                                   | - 28 × 250 | 112 MC   | 6    | 4    |
|             | 225                        | 12,5           | 2,12      | MR 2I 64                                   | - 28 × 250 | 112 MC   | 6    | 4    |
|             | 248                        | 11,3           | 1,25      | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 5,65 |
|             | 248                        | 11,3           | 1,6       | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 5,65 |
|             | 249                        | 11,3           | 2,65      | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 5,63 |
|             | 274                        | 10,3           | 1,32      | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 5,11 |
|             | 274                        | 10,3           | 1,6       | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 5,11 |
|             | 277                        | 10,1           | 2,8       | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 5,06 |
|             | 342                        | 8,2            | 1,4       | MR 2I 50                                   | - 24 × 200 | 112 MA * | 4    | 4,1  |
|             | 342                        | 8,2            | 1,6       | MR 2I 51                                   | - 24 × 200 | 112 MA * | 4    | 4,1  |
|             | 350                        | 8              | 3         | MR 2I 63                                   | - 28 × 250 | 112 MA   | 4    | 4    |
|             | 392                        | 7,2            | 1,8       | MR 2I 50                                   | - 24 × 200 | 90 LB    | 2    | 7,14 |
|             | 429                        | 6,6            | 2         | MR 2I 50                                   | - 24 × 200 | 90 LB    | 2    | 6,53 |
|             | 496                        | 5,7            | 2,36      | MR 2I 50                                   | - 24 × 200 | 90 LB    | 2    | 5,65 |
|             | 548                        | 5,1            | 2,65      | MR 2I 50                                   | - 24 × 200 | 90 LB    | 2    | 5,11 |
|             | 684                        | 4,11           | 2,8       | MR 2I 50                                   | - 24 × 200 | 90 LB    | 2    | 4,1  |
| 4           | 7,31                       | 501            | 1,7       | MR 3I 180                                  | - 38 × 300 | 132 M    | 6    | 123  |
|             | 7,54                       | 487            | 1,25      | MR 3I 160                                  | - 38 × 300 | 132 M    | 6    | 119  |
|             | 8,93                       | 411            | 2,36      | MR 3I 180                                  | - 38 × 300 | 132 M    | 6    | 101  |
|             | 8,97                       | 409            | 1,7       | MR 3I 160                                  | - 38 × 300 | 132 M    | 6    | 100  |
|             | 10,7                       | 341            | 2         | MR 3I 160                                  | - 38 × 300 | 132 M    | 6    | 83,8 |
|             | 10,7                       | 343            | 2,8       | MR 3I 180                                  | - 38 × 300 | 132 M    | 6    | 84,2 |
|             | 12                         | 307            | 0,8       | MR 3I 125                                  | - 28 × 250 | 112 M    | 4    | 117  |
|             | 12                         | 307            | 1         | MR 3I 126                                  | - 28 × 250 | 112 M    | 4    | 117  |
|             | 12                         | 307            | 1,4       | MR 3I 140                                  | - 28 × 250 | 112 M    | 4    | 117  |
|             | 13,7                       | 267            | 2,65      | MR 3I 160                                  | - 38 × 300 | 132 M    | 6    | 65,6 |
| 14,7        | 250                        | 1,9            | MR 3I 140 | - 28 × 250                                 | 112 M      | 4        | 95,5 |      |
| 14,9        | 245                        | 1,06           | MR 3I 125 | - 28 × 250                                 | 112 M      | 4        | 93,7 |      |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |         | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|---------|--------|
| 1)          |                            |                |       | 2)                                         |         |        |
| <b>4</b>    | 14,9                       | 245            | 1,4   | MR 3I 126 - 28 × 250                       | 112 M   | 4 93,7 |
|             | 15,7                       | 234            | 3     | MR 3I 160 - 38 × 300                       | 132 M   | 6 57,4 |
|             | 16,2                       | 226            | 2     | MR 3I 140 - 38 × 300                       | 132 M   | 6 55,4 |
|             | 16,4                       | 223            | 1,12  | MR 3I 125 - 38 × 300                       | 132 M   | 6 54,8 |
|             | 16,4                       | 223            | 1,5   | MR 3I 126 - 38 × 300                       | 132 M   | 6 54,8 |
|             | 18                         | 204            | 0,85  | MR 3I 101 - 28 × 250                       | 112 M   | 4 77,9 |
|             | 18,5                       | 199            | 2,36  | MR 3I 140 - 28 × 250                       | 112 M   | 4 75,8 |
|             | 18,8                       | 195            | 1,4   | MR 3I 125 - 28 × 250                       | 112 M   | 4 74,4 |
|             | 18,8                       | 195            | 1,8   | MR 3I 126 - 28 × 250                       | 112 M   | 4 74,4 |
|             | 19,7                       | 186            | 0,9   | MR 3I 101 - 38 × 300                       | 132 M   | 6 45,7 |
|             | 20,1                       | 183            | 2,65  | MR 3I 140 - 38 × 300                       | 132 M   | 6 44,9 |
|             | 20,2                       | 181            | 1,5   | MR 3I 125 - 38 × 300                       | 132 M   | 6 44,5 |
|             | 20,2                       | 181            | 2     | MR 3I 126 - 38 × 300                       | 132 M   | 6 44,5 |
|             | 22,1                       | 166            | 0,8   | MR 3I 100 - 28 × 250                       | 112 M   | 4 63,2 |
|             | 22,1                       | 166            | 1,06  | MR 3I 101 - 28 × 250                       | 112 M   | 4 63,2 |
|             | 22,5                       | 163            | 3     | MR 3I 140 - 28 × 250                       | 112 M   | 4 62,3 |
|             | 22,9                       | 160            | 1,7   | MR 3I 125 - 28 × 250                       | 112 M   | 4 61,2 |
|             | 22,9                       | 160            | 2,12  | MR 3I 126 - 28 × 250                       | 112 M   | 4 61,2 |
|             | 24,5                       | 150            | 0,85  | MR 3I 100 - 28 × 250                       | 112 M   | 4 57,1 |
|             | 24,5                       | 150            | 1,12  | MR 3I 101 - 28 × 250                       | 112 M   | 4 57,1 |
|             | 25,3                       | 145            | 1,8   | MR 3I 125 - 28 × 250                       | 112 M   | 4 55,3 |
|             | 25,3                       | 145            | 2,5   | MR 3I 126 - 28 × 250                       | 112 M   | 4 55,3 |
|             | 26,1                       | 141            | 0,95  | MR 3I 100 - 38 × 300                       | 132 M   | 6 34,5 |
|             | 26,1                       | 141            | 1,32  | MR 3I 101 - 38 × 300                       | 132 M   | 6 34,5 |
|             | 27,1                       | 135            | 0,95  | MR 3I 100 - 28 × 250                       | 112 M   | 4 51,7 |
|             | 27,1                       | 135            | 1,25  | MR 3I 101 - 28 × 250                       | 112 M   | 4 51,7 |
|             | 27,9                       | 132            | 2     | MR 3I 125 - 28 × 250                       | 112 M   | 4 50,2 |
|             | 27,9                       | 132            | 2,65  | MR 3I 126 - 28 × 250                       | 112 M   | 4 50,2 |
|             | 29,7                       | 123            | 1,06  | MR 3I 100 - 28 × 250                       | 112 M   | 4 47,1 |
|             | 29,7                       | 123            | 1,4   | MR 3I 101 - 28 × 250                       | 112 M   | 4 47,1 |
|             | 30,3                       | 121            | 2,12  | MR 3I 125 - 28 × 250                       | 112 M   | 4 46,2 |
|             | 30,3                       | 121            | 2,65  | MR 3I 126 - 28 × 250                       | 112 M   | 4 46,2 |
|             | 32,5                       | 113            | 1,18  | MR 3I 100 - 28 × 250                       | 112 M   | 4 43,1 |
|             | 32,5                       | 113            | 1,6   | MR 3I 101 - 28 × 250                       | 112 M   | 4 43,1 |
|             | 33,6                       | 109            | 0,8   | MR 3I 81 - 28 × 250                        | 112 M   | 4 41,7 |
|             | 33,8                       | 109            | 2,36  | MR 3I 125 - 28 × 250                       | 112 M   | 4 41,5 |
|             | 36,1                       | 102            | 1,25  | MR 3I 100 - 38 × 300                       | 132 M   | 6 25   |
|             | 36,1                       | 102            | 1,7   | MR 3I 101 - 38 × 300                       | 132 M   | 6 25   |
|             | 37,1                       | 101            | 2,12  | MR 2I 125 - 38 × 300                       | 132 M   | 6 24,3 |
|             | 37,3                       | 98             | 2,65  | MR 3I 125 - 28 × 250                       | 112 M   | 4 37,5 |
|             | 37,6                       | 98             | 1,32  | MR 3I 100 - 28 × 250                       | 112 M   | 4 37,2 |
|             | 37,6                       | 98             | 1,8   | MR 3I 101 - 28 × 250                       | 112 M   | 4 37,2 |
|             | 37,9                       | 97             | 0,9   | MR 3I 81 - 28 × 250                        | 112 M   | 4 36,9 |
|             | 41,1                       | 89             | 3     | MR 3I 125 - 28 × 250                       | 112 M   | 4 34,1 |
|             | 44,7                       | 82             | 0,8   | MR 3I 80 - 28 × 250                        | 112 M   | 4 31,3 |
|             | 44,7                       | 82             | 1,06  | MR 3I 81 - 28 × 250                        | 112 M   | 4 31,3 |
|             | 44,9                       | 82             | 1,6   | MR 3I 100 - 28 × 250                       | 112 M   | 4 31,2 |
|             | 44,9                       | 82             | 2     | MR 3I 101 - 28 × 250                       | 112 M   | 4 31,2 |
|             | 47,4                       | 79             | 3     | MR 2I 125 - 38 × 300                       | 132 M   | 6 19   |
|             | 49,3                       | 74             | 1,7   | MR 3I 100 - 28 × 250                       | 112 M   | 4 28,4 |
|             | 49,3                       | 74             | 2,36  | MR 3I 101 - 28 × 250                       | 112 M   | 4 28,4 |
|             | 51,1                       | 72             | 0,9   | MR 3I 80 - 28 × 250                        | 112 M   | 4 27,4 |
|             | 51,1                       | 72             | 1,18  | MR 3I 81 - 28 × 250                        | 112 M   | 4 27,4 |
|             | 53,9                       | 68             | 1,9   | MR 3I 100 - 28 × 250                       | 112 M   | 4 26   |
|             | 53,9                       | 68             | 2,5   | MR 3I 101 - 28 × 250                       | 112 M   | 4 26   |
|             | 57,1                       | 66             | 0,8   | MR 2I 80 - 24 × 200                        | 112 M * | 4 24,5 |
|             | 57,7                       | 64             | 1     | MR 3I 80 - 28 × 250                        | 112 M   | 4 24,3 |
|             | 57,7                       | 64             | 1,32  | MR 3I 81 - 28 × 250                        | 112 M   | 4 24,3 |
|             | 57,8                       | 63             | 1,7   | MR 2I 100 - 28 × 250                       | 112 M   | 4 23,4 |
|             | 60,1                       | 62             | 1,7   | MR 2I 100 - 38 × 300                       | 132 M   | 6 15   |
|             | 62,4                       | 59             | 2,12  | MR 3I 100 - 28 × 250                       | 112 M   | 4 22,4 |
|             | 62,4                       | 59             | 3     | MR 3I 101 - 28 × 250                       | 112 M   | 4 22,4 |
|             | 68                         | 54             | 1,18  | MR 3I 80 - 28 × 250                        | 112 M   | 4 20,6 |
|             | 68                         | 54             | 1,6   | MR 3I 81 - 28 × 250                        | 112 M   | 4 20,6 |
|             | 69                         | 53             | 2,36  | MR 3I 100 - 28 × 250                       | 112 M   | 4 20,3 |
|             | 69,8                       | 54             | 1,06  | MR 2I 80 - 24 × 200                        | 112 M * | 4 20,1 |
|             | 69,8                       | 54             | 1,32  | MR 2I 81 - 24 × 200                        | 112 M * | 4 20,1 |
|             | 70,5                       | 53             | 0,95  | MR 2I 80 - 28 × 250                        | 112 M   | 4 19,9 |
|             | 72,6                       | 52             | 2,24  | MR 2I 100 - 28 × 250                       | 112 M   | 4 19,3 |

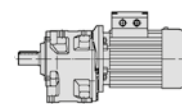
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |         | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|---------|--------|
| 1)          |                            |                |       | 2)                                         |         |        |
| <b>4</b>    | 72,6                       | 52             | 2,65  | MR 2I 101 - 28 × 250                       | 112 M   | 4 19,3 |
|             | 75,7                       | 48,4           | 1,32  | MR 3I 80 - 28 × 250                        | 112 M   | 4 18,5 |
|             | 75,7                       | 48,4           | 1,8   | MR 3I 81 - 28 × 250                        | 112 M   | 4 18,5 |
|             | 78,3                       | 47,8           | 1,25  | MR 2I 80 - 24 × 200                        | 112 M * | 4 17,9 |
|             | 78,3                       | 47,8           | 1,6   | MR 2I 81 - 24 × 200                        | 112 M * | 4 17,9 |
|             | 80,8                       | 46,3           | 2,5   | MR 2I 100 - 28 × 250                       | 112 M   | 4 17,3 |
|             | 86,2                       | 43,5           | 1,32  | MR 2I 80 - 28 × 250                        | 112 M   | 4 16,3 |
|             | 86,2                       | 43,5           | 1,6   | MR 2I 81 - 28 × 250                        | 112 M   | 4 16,3 |
|             | 87,1                       | 43             | 1,4   | MR 2I 80 - 24 × 200                        | 112 M * | 4 16,1 |
|             | 87,1                       | 43             | 1,9   | MR 2I 81 - 24 × 200                        | 112 M * | 4 16,1 |
|             | 87,2                       | 42,1           | 1,5   | MR 3I 80 - 28 × 250                        | 112 M   | 4 16,1 |
|             | 87,2                       | 42,1           | 2     | MR 3I 81 - 28 × 250                        | 112 M   | 4 16,1 |
|             | 89,2                       | 42             | 3     | MR 2I 100 - 28 × 250                       | 112 M   | 4 15,7 |
|             | 96,6                       | 38,7           | 1,5   | MR 2I 80 - 28 × 250                        | 112 M   | 4 14,5 |
|             | 96,6                       | 38,7           | 1,9   | MR 2I 81 - 28 × 250                        | 112 M   | 4 14,5 |
|             | 102                        | 36,8           | 3,15  | MR 2I 100 - 28 × 250                       | 112 M   | 4 13,8 |
|             | 108                        | 34,8           | 1,7   | MR 2I 80 - 28 × 250                        | 112 M   | 4 13   |
|             | 110                        | 34,8           | 2,24  | MR 2I 81 - 28 × 250                        | 112 M   | 4 13   |
|             | 110                        | 33,9           | 1     | MR 2I 64 - 24 × 200                        | 112 M * | 4 12,7 |
|             | 112                        | 33,3           | 3,55  | MR 2I 100 - 28 × 250                       | 112 M   | 4 12,5 |
|             | 119                        | 31,4           | 1,8   | MR 2I 80 - 28 × 250                        | 112 M   | 4 11,8 |
|             | 119                        | 31,4           | 2,36  | MR 2I 81 - 28 × 250                        | 112 M   | 4 11,8 |
|             | 121                        | 30,9           | 2     | MR 2I 80 - 24 × 200                        | 112 M * | 4 11,5 |
|             | 121                        | 30,9           | 2,65  | MR 2I 81 - 24 × 200                        | 112 M * | 4 11,5 |
|             | 124                        | 30,2           | 0,95  | MR 2I 63 - 24 × 200                        | 112 M * | 4 11,3 |
|             | 124                        | 30,2           | 1,18  | MR 2I 64 - 24 × 200                        | 112 M * | 4 11,3 |
|             | 124                        | 30,3           | 4     | MR 2I 100 - 28 × 250                       | 112 M   | 4 11,3 |
|             | 133                        | 28,3           | 2,12  | MR 2I 80 - 28 × 250                        | 112 M   | 4 10,6 |
|             | 133                        | 28,3           | 2,8   | MR 2I 81 - 28 × 250                        | 112 M   | 4 10,6 |
|             | 138                        | 27,2           | 1,12  | MR 2I 63 - 24 × 200                        | 112 M * | 4 10,2 |
|             | 138                        | 27,2           | 1,4   | MR 2I 64 - 24 × 200                        | 112 M * | 4 10,2 |
|             | 140                        | 26,7           | 1,06  | MR 2I 63 - 28 × 250                        | 112 M   | 4 10   |
|             | 140                        | 26,7           | 1,25  | MR 2I 64 - 28 × 250                        | 112 M   | 4 10   |
|             | 150                        | 25             | 2,36  | MR 2I 80 - 28 × 250                        | 112 M   | 4 9,36 |
|             | 150                        | 25             | 3,15  | MR 2I 81 - 28 × 250                        | 112 M   | 4 9,36 |
|             | 157                        | 23,8           | 1,18  | MR 2I 63 - 28 × 250                        | 112 M   | 4 8,91 |
|             | 157                        | 23,8           | 1,5   | MR 2I 64 - 28 × 250                        | 112 M   | 4 8,91 |
|             | 158                        | 23,8           | 2,5   | MR 2I 80 - 38 × 300                        | 132 M   | 6 5,71 |
|             | 168                        | 22,3           | 1,32  | MR 2I 63 - 24 × 200                        | 112 M * | 4 8,34 |
|             | 168                        | 22,3           | 1,8   | MR 2I 64 - 24 × 200                        | 112 M * | 4 8,34 |
|             | 175                        | 21,4           | 1,4   | MR 2I 63 - 28 × 250                        | 112 M   | 4 8    |
|             | 175                        | 21,4           | 1,8   | MR 2I 64 - 28 × 250                        | 112 M   | 4 8    |
|             | 176                        | 21,2           | 2,8   | MR 2I 80 - 28 × 250                        | 112 M   | 4 7,95 |
|             | 178                        | 21             | 0,9   | MR 2I 51 - 24 × 200                        | 112 M * | 4 7,85 |
|             | 194                        | 19,3           | 1,5   | MR 2I 63 - 28 × 250                        | 112 M   | 4 7,23 |
|             | 194                        | 19,3           | 2     | MR 2I 64 - 28 × 250                        | 112 M   | 4 7,23 |
|             | 196                        | 19,1           | 1,06  | MR 2I 51 - 24 × 200                        | 112 M * | 4 7,14 |
|             | 196                        | 19,1           | 3,15  | MR 2I 80 - 28 × 250                        | 112 M   | 4 7,13 |
|             | 213                        | 17,6           | 1,7   | MR 2I 63 - 28 × 250                        | 112 M   | 4 6,57 |
|             | 213                        | 17,6           | 2,24  | MR 2I 64 - 28 × 250                        | 112 M   | 4 6,57 |
|             | 214                        | 17,5           | 1,12  | MR 2I 51 - 24 × 200                        | 112 M * | 4 6,53 |
|             | 226                        | 16,6           | 3,55  | MR 2I 80 - 28 × 250                        | 112 M   | 4 6,2  |
|             | 248                        | 15,1           | 1,25  | MR 2I 51 - 24 × 200                        | 112 M * | 4 5,65 |
|             | 249                        | 15             | 2     | MR 2I 63 - 28 × 250                        | 112 M   | 4 5,63 |
|             | 249                        | 15             | 2,36  | MR 2I 64 - 28 × 250                        | 112 M   | 4 5,63 |
|             | 274                        | 13,7           | 1,25  | MR 2I 51 - 24 × 200                        | 112 M * | 4 5,11 |
|             | 277                        | 13,5           | 2,12  | MR 2I 63 - 28 × 250                        | 112 M   | 4 5,06 |
|             | 277                        | 13,5           | 2,36  | MR 2I 64 - 28 × 250                        | 112 M   | 4 5,06 |
|             | 342                        | 11             | 1,25  | MR 2I 51 - 24 × 200                        | 112 M * | 4 4,1  |
|             | 350                        | 10,7           | 2,24  | MR 2I 63 - 28 × 250                        | 112 M   | 4 4    |
|             | 350                        | 10,7           | 2,36  | MR 2I 64 - 28 × 250                        | 112 M   | 4 4    |
| <b>5,5</b>  | 7,31                       | 689            | 1,25  | MR 3I 180 - 38 × 300                       | 132 MB  | 6 123  |
|             | 7,54                       | 669            | 0,9   | MR 3I 160 - 38 × 300                       | 132 MB  | 6 119  |
|             | 8,93                       | 565            | 1,7   | MR 3I 180 - 38 × 300                       | 132 MB  | 6 101  |
|             | 8,97                       | 562            | 1,25  | MR 3I 160 - 38 × 300                       | 132 MB  | 6 100  |
|             | 10,7                       | 469            | 1,5   | MR 3I 160 - 38 × 300                       | 132 MB  | 6 83,8 |
|             | 10,7                       | 472            | 2     | MR 3I 180 - 38 × 300                       | 132 MB  | 6 84,2 |
|             | 11,4                       | 443            | 1,9   | MR 3I 180 - 38 × 300                       | 132 S   | 4 123  |

1) Powers valid for continuous duty S1; **increase** possible for S2 ... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.

2) For complete designation when ordering, see ch. 3.

\* Mounting position **B5R** (see table ch. 2b).





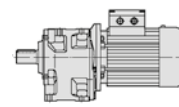
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|
| 1)          |                            |                |       | 2)                                         |        |
| 5,5         | 11,7                       | 430            | 1,4   | MR 3I 160 - 38 × 300 132 S                 | 4 119  |
|             | 12                         | 419            | 1     | MR 3I 140 - 38 × 300 132 MB                | 6 74,8 |
|             | 12                         | 422            | 1     | MR 3I 140 - 28 × 250 112 MC                | 4 117  |
|             | 13,9                       | 363            | 2,65  | MR 3I 180 - 38 × 300 132 S                 | 4 101  |
|             | 14                         | 361            | 1,9   | MR 3I 160 - 38 × 300 132 S                 | 4 100  |
|             | 14,7                       | 344            | 1,4   | MR 3I 140 - 28 × 250 112 MC                | 4 95,5 |
|             | 14,9                       | 338            | 0,8   | MR 3I 125 - 28 × 250 112 MC                | 4 93,7 |
|             | 14,9                       | 338            | 1     | MR 3I 126 - 28 × 250 112 MC                | 4 93,7 |
|             | 16,2                       | 310            | 1,5   | MR 3I 140 - 38 × 300 132 MB                | 6 55,4 |
|             | 16,4                       | 307            | 0,85  | MR 3I 125 - 38 × 300 132 MB                | 6 54,8 |
|             | 16,4                       | 307            | 1,06  | MR 3I 126 - 38 × 300 132 MB                | 6 54,8 |
|             | 16,6                       | 303            | 3     | MR 3I 180 - 38 × 300 132 S                 | 4 84,2 |
|             | 16,7                       | 302            | 2,24  | MR 3I 160 - 38 × 300 132 S                 | 4 83,8 |
|             | 17,9                       | 281            | 1,7   | MR 3I 140 - 38 × 300 132 MB                | 6 50,2 |
|             | 18,1                       | 279            | 2,5   | MR 3I 160 - 38 × 300 132 MB                | 6 49,7 |
|             | 18,3                       | 276            | 0,95  | MR 3I 125 - 38 × 300 132 MB                | 6 49,3 |
|             | 18,3                       | 276            | 1,25  | MR 3I 126 - 38 × 300 132 MB                | 6 49,3 |
|             | 18,5                       | 273            | 1,8   | MR 3I 140 - 28 × 250 112 MC                | 4 75,8 |
|             | 18,7                       | 270            | 0,9   | MR 3I 125 - 38 × 300 132 S                 | 4 74,8 |
|             | 18,7                       | 270            | 1,12  | MR 3I 126 - 38 × 300 132 S                 | 4 74,8 |
|             | 18,7                       | 270            | 1,6   | MR 3I 140 - 38 × 300 132 S                 | 4 74,8 |
|             | 18,8                       | 268            | 1     | MR 3I 125 - 28 × 250 112 MC                | 4 74,4 |
|             | 18,8                       | 268            | 1,32  | MR 3I 126 - 28 × 250 112 MC                | 4 74,4 |
|             | 20,1                       | 251            | 2     | MR 3I 140 - 38 × 300 132 MB                | 6 44,9 |
|             | 20,2                       | 249            | 1,06  | MR 3I 125 - 38 × 300 132 MB                | 6 44,5 |
|             | 20,2                       | 249            | 1,4   | MR 3I 126 - 38 × 300 132 MB                | 6 44,5 |
|             | 20,9                       | 242            | 2,8   | MR 3I 160 - 38 × 300 132 MB                | 6 43,1 |
|             | 21,3                       | 236            | 3     | MR 3I 160 - 38 × 300 132 S                 | 4 65,6 |
|             | 22,5                       | 225            | 2,12  | MR 3I 140 - 28 × 250 112 MC                | 4 62,3 |
|             | 22,9                       | 220            | 1,18  | MR 3I 125 - 28 × 250 112 MC                | 4 61,2 |
|             | 22,9                       | 220            | 1,6   | MR 3I 126 - 28 × 250 112 MC                | 4 61,2 |
|             | 22,9                       | 220            | 2,12  | MR 3I 140 - 38 × 300 132 S                 | 4 61   |
|             | 23,4                       | 216            | 1,25  | MR 3I 125 - 38 × 300 132 S                 | 4 59,9 |
|             | 23,4                       | 216            | 1,6   | MR 3I 126 - 38 × 300 132 S                 | 4 59,9 |
|             | 23,9                       | 211            | 0,85  | MR 3I 101 - 38 × 300 132 MB                | 6 37,7 |
|             | 24,4                       | 207            | 3,35  | MR 3I 160 - 38 × 300 132 S                 | 4 57,4 |
|             | 24,5                       | 206            | 0,8   | MR 3I 101 - 28 × 250 112 MC                | 4 57,1 |
|             | 25,1                       | 201            | 2,5   | MR 3I 140 - 28 × 250 112 MC                | 4 55,7 |
|             | 25,3                       | 199            | 1,32  | MR 3I 125 - 28 × 250 112 MC                | 4 55,3 |
|             | 25,3                       | 199            | 1,8   | MR 3I 126 - 28 × 250 112 MC                | 4 55,3 |
|             | 25,3                       | 200            | 2,24  | MR 3I 140 - 38 × 300 132 S                 | 4 55,4 |
|             | 25,5                       | 198            | 1,32  | MR 3I 125 - 38 × 300 132 S                 | 4 54,8 |
|             | 25,5                       | 198            | 1,6   | MR 3I 126 - 38 × 300 132 S                 | 4 54,8 |
|             | 26,1                       | 193            | 0,95  | MR 3I 101 - 38 × 300 132 MB                | 6 34,5 |
|             | 27,1                       | 186            | 0,95  | MR 3I 101 - 28 × 250 112 MC                | 4 51,7 |
|             | 27,6                       | 182            | 0,95  | MR 3I 101 - 38 × 300 132 S                 | 4 50,6 |
|             | 27,6                       | 183            | 2,65  | MR 3I 140 - 28 × 250 112 MC                | 4 50,8 |
|             | 27,9                       | 181            | 1,5   | MR 3I 125 - 28 × 250 112 MC                | 4 50,2 |
|             | 27,9                       | 181            | 2     | MR 3I 126 - 28 × 250 112 MC                | 4 50,2 |
|             | 27,9                       | 181            | 2,65  | MR 3I 140 - 38 × 300 132 S                 | 4 50,2 |
|             | 28,4                       | 177            | 1,5   | MR 3I 125 - 38 × 300 132 S                 | 4 49,3 |
|             | 28,4                       | 177            | 1,9   | MR 3I 126 - 38 × 300 132 S                 | 4 49,3 |
|             | 29,7                       | 170            | 0,8   | MR 3I 100 - 28 × 250 112 MC                | 4 47,1 |
|             | 29,7                       | 170            | 1,06  | MR 3I 101 - 28 × 250 112 MC                | 4 47,1 |
|             | 30                         | 168            | 2,65  | MR 3I 140 - 28 × 250 112 MC                | 4 46,7 |
|             | 30,3                       | 166            | 1,5   | MR 3I 125 - 28 × 250 112 MC                | 4 46,2 |
|             | 30,3                       | 166            | 1,9   | MR 3I 126 - 28 × 250 112 MC                | 4 46,2 |
|             | 30,6                       | 165            | 1     | MR 3I 101 - 38 × 300 132 S                 | 4 45,7 |
|             | 31,2                       | 162            | 3     | MR 3I 140 - 38 × 300 132 S                 | 4 44,9 |
|             | 31,4                       | 160            | 1,6   | MR 3I 125 - 38 × 300 132 S                 | 4 44,5 |
|             | 31,4                       | 160            | 2,24  | MR 3I 126 - 38 × 300 132 S                 | 4 44,5 |
|             | 32,5                       | 155            | 0,85  | MR 3I 100 - 28 × 250 112 MC                | 4 43,1 |
|             | 32,5                       | 155            | 1,12  | MR 3I 101 - 28 × 250 112 MC                | 4 43,1 |
|             | 33,8                       | 149            | 0,85  | MR 3I 100 - 38 × 300 132 S                 | 4 41,4 |
|             | 33,8                       | 149            | 1,12  | MR 3I 101 - 38 × 300 132 S                 | 4 41,4 |
|             | 33,8                       | 149            | 1,7   | MR 3I 125 - 28 × 250 112 MC                | 4 41,5 |
|             | 33,8                       | 149            | 2,24  | MR 3I 126 - 28 × 250 112 MC                | 4 41,5 |
|             | 34,6                       | 146            | 1,8   | MR 3I 125 - 38 × 300 132 S                 | 4 40,5 |
|             | 34,6                       | 146            | 2,36  | MR 3I 126 - 38 × 300 132 S                 | 4 40,5 |
|             | 37,1                       | 136            | 0,95  | MR 3I 100 - 38 × 300 132 S                 | 4 37,7 |
|             | 37,1                       | 136            | 1,32  | MR 3I 101 - 38 × 300 132 S                 | 4 37,7 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|
| 1)          |                            |                |       | 2)                                         |        |
| 5,5         | 37,1                       | 139            | 1,5   | MR 2I 125 - 38 × 300 132 MB                | 6 24,3 |
|             | 37,3                       | 135            | 1,9   | MR 3I 125 - 28 × 250 112 MC                | 4 37,5 |
|             | 37,3                       | 135            | 2,5   | MR 3I 126 - 28 × 250 112 MC                | 4 37,5 |
|             | 37,3                       | 135            | 3,35  | MR 3I 140 - 38 × 300 132 S                 | 4 37,6 |
|             | 37,6                       | 134            | 1     | MR 3I 100 - 28 × 250 112 MC                | 4 37,2 |
|             | 37,6                       | 134            | 1,32  | MR 3I 101 - 28 × 250 112 MC                | 4 37,2 |
|             | 37,6                       | 134            | 1,9   | MR 3I 125 - 38 × 300 132 S                 | 4 37,2 |
|             | 37,6                       | 134            | 2,36  | MR 3I 126 - 38 × 300 132 S                 | 4 37,2 |
|             | 40,6                       | 124            | 1,06  | MR 3I 100 - 38 × 300 132 S                 | 4 34,5 |
|             | 40,6                       | 124            | 1,4   | MR 3I 101 - 38 × 300 132 S                 | 4 34,5 |
|             | 41,1                       | 123            | 2,12  | MR 3I 125 - 28 × 250 112 MC                | 4 34,1 |
|             | 41,9                       | 120            | 2,12  | MR 3I 125 - 38 × 300 132 S                 | 4 33,4 |
|             | 41,9                       | 120            | 2,8   | MR 3I 126 - 38 × 300 132 S                 | 4 33,4 |
|             | 44,7                       | 113            | 0,8   | MR 3I 81 - 28 × 250 112 MC                 | 4 31,3 |
|             | 44,9                       | 112            | 1,12  | MR 3I 100 - 28 × 250 112 MC                | 4 31,2 |
|             | 44,9                       | 112            | 1,5   | MR 3I 101 - 28 × 250 112 MC                | 4 31,2 |
|             | 46,4                       | 109            | 2,36  | MR 3I 125 - 38 × 300 132 S                 | 4 30,2 |
|             | 47                         | 107            | 1,18  | MR 3I 100 - 38 × 300 132 S                 | 4 29,8 |
|             | 47                         | 107            | 1,6   | MR 3I 101 - 38 × 300 132 S                 | 4 29,8 |
|             | 47,4                       | 109            | 2,12  | MR 2I 125 - 38 × 300 132 MB                | 6 19   |
|             | 49,3                       | 102            | 1,25  | MR 3I 100 - 28 × 250 112 MC                | 4 28,4 |
|             | 49,3                       | 102            | 1,7   | MR 3I 101 - 28 × 250 112 MC                | 4 28,4 |
|             | 51                         | 99             | 2,65  | MR 3I 125 - 38 × 300 132 S                 | 4 27,4 |
|             | 51,1                       | 99             | 0,85  | MR 3I 81 - 28 × 250 112 MC                 | 4 27,4 |
|             | 53,9                       | 93             | 1,32  | MR 3I 100 - 28 × 250 112 MC                | 4 26   |
|             | 53,9                       | 93             | 1,8   | MR 3I 101 - 28 × 250 112 MC                | 4 26   |
|             | 56,1                       | 90             | 1,4   | MR 3I 100 - 38 × 300 132 S                 | 4 25   |
|             | 56,1                       | 90             | 1,8   | MR 3I 101 - 38 × 300 132 S                 | 4 25   |
|             | 57,7                       | 87             | 1     | MR 3I 81 - 28 × 250 112 MC                 | 4 24,3 |
|             | 57,7                       | 89             | 2,36  | MR 2I 125 - 38 × 300 132 S                 | 4 24,3 |
|             | 59,6                       | 85             | 3     | MR 3I 125 - 38 × 300 132 S                 | 4 23,5 |
|             | 59,8                       | 86             | 1,25  | MR 2I 100 - 28 × 250 112 MC                | 4 23,4 |
|             | 60,1                       | 86             | 1,25  | MR 2I 100 - 38 × 300 132 MB                | 6 15   |
|             | 61,6                       | 82             | 1,5   | MR 3I 100 - 38 × 300 132 S                 | 4 22,7 |
|             | 61,6                       | 82             | 2,12  | MR 3I 101 - 38 × 300 132 S                 | 4 22,7 |
|             | 62,4                       | 81             | 1,6   | MR 3I 100 - 28 × 250 112 MC                | 4 22,4 |
|             | 62,4                       | 81             | 2,12  | MR 3I 101 - 28 × 250 112 MC                | 4 22,4 |
|             | 66,3                       | 76             | 3,35  | MR 3I 125 - 38 × 300 132 S                 | 4 21,1 |
|             | 67,4                       | 75             | 1,7   | MR 3I 100 - 38 × 300 132 S                 | 4 20,8 |
|             | 67,4                       | 75             | 2,24  | MR 3I 101 - 38 × 300 132 S                 | 4 20,8 |
|             | 68                         | 74             | 0,85  | MR 3I 80 - 28 × 250 112 MC                 | 4 20,6 |
|             | 68                         | 74             | 1,18  | MR 3I 81 - 28 × 250 112 MC                 | 4 20,6 |
|             | 69                         | 73             | 1,7   | MR 3I 100 - 28 × 250 112 MC                | 4 20,3 |
|             | 69                         | 73             | 2,36  | MR 3I 101 - 28 × 250 112 MC                | 4 20,3 |
|             | 72,6                       | 71             | 1,6   | MR 2I 100 - 28 × 250 112 MC                | 4 19,3 |
|             | 72,6                       | 71             | 2     | MR 2I 101 - 28 × 250 112 MC                | 4 19,3 |
|             | 73,1                       | 70             | 1,6   | MR 2I 100 - 38 × 300 132 MB                | 6 12,3 |
|             | 73,1                       | 70             | 2     | MR 2I 101 - 38 × 300 132 MB                | 6 12,3 |
|             | 73,7                       | 70             | 3,35  | MR 2I 125 - 38 × 300 132 S                 | 4 19   |
|             | 75,7                       | 67             | 0,95  | MR 3I 80 - 28 × 250 112 MC                 | 4 18,5 |
|             | 75,7                       | 67             | 1,32  | MR 3I 81 - 28 × 250 112 MC                 | 4 18,5 |
|             | 77,9                       | 65             | 1,9   | MR 3I 100 - 38 × 300 132 S                 | 4 18   |
|             | 77,9                       | 65             | 2,65  | MR 3I 101 - 38 × 300 132 S                 | 4 18   |
|             | 80,8                       | 64             | 1,9   | MR 2I 100 - 28 × 250 112 MC                | 4 17,3 |
|             | 80,8                       | 64             | 2,36  | MR 2I 101 - 28 × 250 112 MC                | 4 17,3 |
|             | 85,2                       | 60             | 1,12  | MR 2I 81 - 38 × 300 132 MB                 | 6 10,6 |
|             | 86,1                       | 59             | 2,12  | MR 3I 100 - 38 × 300 132 S                 | 4 16,3 |
|             | 86,1                       | 59             | 3     | MR 3I 101 - 38 × 300 132 S                 | 4 16,3 |
|             | 86,2                       | 60             | 0,95  | MR 2I 80 - 28 × 250 112 MC                 | 4 16,3 |
|             | 86,2                       | 60             | 1,18  | MR 2I 81 - 28 × 250 112 MC                 | 4 16,3 |
|             | 87,2                       | 58             | 1,12  | MR 3I 80 - 28 × 250 112 MC                 | 4 16,1 |
|             | 87,2                       | 58             | 1,5   | MR 3I 81 - 28 × 250 112 MC                 | 4 16,1 |
|             | 89,2                       | 58             | 2,12  | MR 2I 100 - 28 × 250 112 MC                | 4 15,7 |
|             | 89,2                       | 58             | 2,8   | MR 2I 101 - 28 × 250 112 MC                | 4 15,7 |
|             | 93,5                       | 55             | 1,9   | MR 2I 100 - 38 × 300 132 S                 | 4 15   |
|             | 96,6                       | 53             | 1,12  | MR 2I 80 - 28 × 250 112 MC                 | 4 14,5 |
|             | 96,6                       | 53             | 1,4   | MR 2I 81 - 28 × 250 112 MC                 | 4 14,5 |
|             | 102                        | 51             | 2,36  | MR 2I 100 - 28 × 250 112 MC                | 4 13,8 |
|             | 106                        | 48,4           | 1,25  | MR 2I 80 - 38 × 300 132 MB                 | 6 8,46 |
|             | 106                        | 48,4           | 1,6   | MR 2I 81 - 38 × 300 132 MB                 | 6 8,46 |
|             | 108                        | 47,9           | 1,25  | MR 2I 80 - 28 × 250 112 MC                 | 4 13   |
|             | 108                        | 47,5           | 1,06  | MR 2I 80 - 38 × 300 132 S                  | 4 12,9 |

Motor (cat. TX) with efficiency value not according to IE3 class (IEC 60034-30); the nominal power and nameplate data refer to intermittent duty S3 70%.

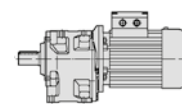
1) Powers valid for continuous duty S1; increase possible for S2 ... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.  
2) For complete designation when ordering, see ch. 3.





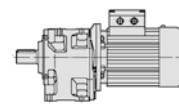
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |        |   |  | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|---|--|------|
| 1)          |                            |                |       | 2)                                         |        |   |  |      |
| 5,5         | 108                        | 47,9           | 1,7   | MR 21 81 - 28 × 250                        | 112 MC | 4 |  | 13   |
|             | 112                        | 45,8           | 2,65  | MR 21 100 - 28 × 250                       | 112 MC | 4 |  | 12,5 |
|             | 114                        | 45,3           | 2,5   | MR 21 100 - 38 × 300                       | 132 S  | 4 |  | 12,3 |
|             | 114                        | 45,3           | 3     | MR 21 101 - 38 × 300                       | 132 S  | 4 |  | 12,3 |
|             | 119                        | 43,2           | 1,32  | MR 21 80 - 28 × 250                        | 112 MC | 4 |  | 11,8 |
|             | 119                        | 43,2           | 1,7   | MR 21 81 - 28 × 250                        | 112 MC | 4 |  | 11,8 |
|             | 120                        | 42,9           | 1,4   | MR 21 80 - 38 × 300                        | 132 MB | 6 |  | 7,5  |
|             | 120                        | 42,9           | 1,9   | MR 21 81 - 38 × 300                        | 132 MB | 6 |  | 7,5  |
|             | 124                        | 41,7           | 2,8   | MR 21 100 - 28 × 250                       | 112 MC | 4 |  | 11,3 |
|             | 126                        | 40,7           | 2,8   | MR 21 100 - 38 × 300                       | 132 S  | 4 |  | 11,1 |
|             | 133                        | 38,8           | 1,5   | MR 21 80 - 28 × 250                        | 112 MC | 4 |  | 10,6 |
|             | 133                        | 38,8           | 1,4   | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 10,6 |
|             | 133                        | 38,8           | 2     | MR 21 81 - 28 × 250                        | 112 MC | 4 |  | 10,6 |
|             | 133                        | 38,8           | 1,7   | MR 21 81 - 38 × 300                        | 132 S  | 4 |  | 10,6 |
|             | 135                        | 38,1           | 3,15  | MR 21 100 - 28 × 250                       | 112 MC | 4 |  | 10,4 |
|             | 140                        | 36,8           | 0,9   | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 10   |
|             | 140                        | 36,9           | 3,15  | MR 21 100 - 38 × 300                       | 132 S  | 4 |  | 10   |
|             | 141                        | 36,4           | 2,24  | MR 21 81 - 38 × 300                        | 132 MB | 6 |  | 6,36 |
|             | 149                        | 34,6           | 1,7   | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 9,41 |
|             | 149                        | 34,6           | 2,12  | MR 21 81 - 38 × 300                        | 132 S  | 4 |  | 9,41 |
|             | 150                        | 34,4           | 1,7   | MR 21 80 - 28 × 250                        | 112 MC | 4 |  | 9,36 |
|             | 150                        | 34,4           | 2,36  | MR 21 81 - 28 × 250                        | 112 MC | 4 |  | 9,36 |
|             | 153                        | 33,6           | 3,55  | MR 21 100 - 38 × 300                       | 132 S  | 4 |  | 9,13 |
|             | 157                        | 32,8           | 0,85  | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 8,91 |
|             | 157                        | 32,8           | 1,12  | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 8,91 |
|             | 165                        | 31,1           | 1,9   | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 8,46 |
|             | 165                        | 31,1           | 2,5   | MR 21 81 - 38 × 300                        | 132 S  | 4 |  | 8,46 |
|             | 175                        | 29,4           | 1     | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 8    |
|             | 175                        | 29,4           | 1,32  | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 8    |
|             | 176                        | 29,2           | 2     | MR 21 80 - 28 × 250                        | 112 MC | 4 |  | 7,95 |
|             | 176                        | 29,2           | 2,8   | MR 21 81 - 28 × 250                        | 112 MC | 4 |  | 7,95 |
|             | 187                        | 27,6           | 2,12  | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 7,5  |
|             | 187                        | 27,6           | 2,8   | MR 21 81 - 38 × 300                        | 132 S  | 4 |  | 7,5  |
|             | 194                        | 26,6           | 1,12  | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 7,23 |
|             | 194                        | 26,6           | 1,5   | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 7,23 |
|             | 196                        | 26,2           | 2,24  | MR 21 80 - 28 × 250                        | 112 MC | 4 |  | 7,13 |
|             | 196                        | 26,2           | 3     | MR 21 81 - 28 × 250                        | 112 MC | 4 |  | 7,13 |
|             | 213                        | 24,2           | 1,18  | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 6,57 |
|             | 213                        | 24,2           | 1,6   | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 6,57 |
|             | 220                        | 23,4           | 2,5   | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 6,36 |
|             | 226                        | 22,8           | 2,65  | MR 21 80 - 28 × 250                        | 112 MC | 4 |  | 6,2  |
|             | 245                        | 21             | 2,8   | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 5,71 |
|             | 249                        | 20,7           | 1,4   | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 5,63 |
|             | 249                        | 20,7           | 1,8   | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 5,63 |
|             | 277                        | 18,6           | 1,6   | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 5,06 |
|             | 277                        | 18,6           | 1,8   | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 5,06 |
|             | 282                        | 18,2           | 3,15  | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 4,96 |
|             | 350                        | 14,7           | 1,7   | MR 21 63 - 28 × 250                        | 112 MC | 4 |  | 4    |
|             | 350                        | 14,7           | 1,8   | MR 21 64 - 28 × 250                        | 112 MC | 4 |  | 4    |
|             | 353                        | 14,6           | 3,35  | MR 21 80 - 38 × 300                        | 132 S  | 4 |  | 3,96 |
| 7,5         | 7,31                       | 940            | 0,9   | MR 31 180 - 38 × 300                       | 132 MC | 6 |  | 123  |
|             | 8,76                       | 785            | 1,06  | MR 31 180 - 42 × 350                       | 160 M  | 6 |  | 103  |
|             | 8,93                       | 770            | 1,25  | MR 31 180 - 38 × 300                       | 132 MC | 6 |  | 101  |
|             | 8,97                       | 766            | 0,9   | MR 31 160 - 38 × 300                       | 132 MC | 6 |  | 100  |
|             | 10,7                       | 640            | 1,06  | MR 31 160 - 42 × 350                       | 160 M  | 6 |  | 83,8 |
|             | 10,7                       | 643            | 1,5   | MR 31 180 - 42 × 350                       | 160 M  | 6 |  | 84,2 |
|             | 11,4                       | 604            | 1,4   | MR 31 180 - 38 × 300                       | 132 M  | 4 |  | 123  |
|             | 11,7                       | 587            | 1     | MR 31 160 - 38 × 300                       | 132 M  | 4 |  | 119  |
|             | 13,9                       | 495            | 1,9   | MR 31 180 - 38 × 300                       | 132 M  | 4 |  | 101  |
|             | 14                         | 493            | 1,4   | MR 31 160 - 38 × 300                       | 132 M  | 4 |  | 100  |
|             | 14,7                       | 466            | 1,06  | MR 31 140 - 38 × 300                       | 132 MC | 6 |  | 61   |
|             | 14,7                       | 466            | 1,06  | MR 31 140 - 42 × 350                       | 160 M  | 6 |  | 61   |
|             | 16,2                       | 423            | 1,12  | MR 31 140 - 38 × 300                       | 132 MC | 6 |  | 55,4 |
|             | 16,2                       | 423            | 1,12  | MR 31 140 - 42 × 350                       | 160 M  | 6 |  | 55,4 |
|             | 16,4                       | 419            | 0,8   | MR 31 126 - 38 × 300                       | 132 MC | 6 |  | 54,8 |
|             | 16,6                       | 413            | 2,24  | MR 31 180 - 38 × 300                       | 132 M  | 4 |  | 84,2 |
|             | 16,7                       | 411            | 1,7   | MR 31 160 - 38 × 300                       | 132 M  | 4 |  | 83,8 |
|             | 17                         | 404            | 1,7   | MR 31 160 - 42 × 350                       | 160 M  | 6 |  | 52,8 |
|             | 17,9                       | 384            | 1,25  | MR 31 140 - 38 × 300                       | 132 MC | 6 |  | 50,2 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$                | Riduttore - Motore<br>Gear reducer - Motor |         |      |      | $i$ |
|-------------|----------------------------|----------------|----------------------|--------------------------------------------|---------|------|------|-----|
| 1)          | 2)                         |                |                      |                                            |         |      |      |     |
| 7,5         | 18,1                       | 380            | 1,9                  | MR 3I 160 - 38 × 300                       | 132 MC  | 6    | 49,7 |     |
|             | 18,3                       | 376            | 0,9                  | MR 3I 126 - 38 × 300                       | 132 MC  | 6    | 49,3 |     |
|             | 18,3                       | 376            | 0,9                  | MR 3I 126 - 42 × 350                       | 160 M   | 6    | 49,3 |     |
|             | 18,5                       | 372            | 2,5                  | MR 3I 180 - 38 × 300                       | 132 MC  | 6    | 48,7 |     |
|             | 18,7                       | 368            | 0,8                  | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 74,8 |     |
|             | 18,7                       | 368            | 1,18                 | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 74,8 |     |
|             | 20,1                       | 343            | 1,4                  | MR 3I 140 - 38 × 300                       | 132 MC  | 6    | 44,9 |     |
|             | 20,2                       | 340            | 0,8                  | MR 3I 125 - 38 × 300                       | 132 MC  | 6    | 44,5 |     |
|             | 20,2                       | 340            | 1,06                 | MR 3I 126 - 38 × 300                       | 132 MC  | 6    | 44,5 |     |
|             | 20,8                       | 331            | 1,4                  | MR 3I 140 - 42 × 350                       | 160 M   | 6    | 43,4 |     |
|             | 20,9                       | 329            | 2,12                 | MR 3I 160 - 38 × 300                       | 132 MC  | 6    | 43,1 |     |
|             | 21,2                       | 324            | 3                    | MR 3I 180 - 42 × 350                       | 160 M   | 6    | 42,5 |     |
|             | 21,2                       | 324            | 3                    | MR 3I 180 - 38 × 300                       | 132 M   | 4    | 65,9 |     |
|             | 21,3                       | 322            | 2,12                 | MR 3I 160 - 38 × 300                       | 132 M   | 4    | 65,6 |     |
|             | 22,9                       | 300            | 1,6                  | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 61   |     |
|             | 23,4                       | 294            | 0,9                  | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 59,9 |     |
|             | 23,4                       | 294            | 1,18                 | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 59,9 |     |
|             | 24,4                       | 282            | 2,5                  | MR 3I 160 - 38 × 300                       | 132 M   | 4    | 57,4 |     |
|             | 25,3                       | 272            | 1,7                  | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 55,4 |     |
|             | 25,5                       | 269            | 0,95                 | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 54,8 |     |
|             | 25,5                       | 269            | 1,18                 | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 54,8 |     |
|             | 25,8                       | 266            | 1,32                 | MR 3I 126 - 42 × 350                       | 160 M   | 6    | 34,8 |     |
|             | 26,4                       | 260            | 1,9                  | MR 3I 140 - 38 × 300                       | 132 MC  | 6    | 34   |     |
|             | 27,9                       | 247            | 1,9                  | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 50,2 |     |
|             | 28,2                       | 244            | 3                    | MR 3I 160 - 38 × 300                       | 132 M   | 4    | 49,7 |     |
|             | 28,4                       | 242            | 1,06                 | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 49,3 |     |
|             | 28,4                       | 242            | 1,4                  | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 49,3 |     |
|             | 29,6                       | 232            | 2,12                 | MR 3I 140 - 38 × 300                       | 132 MC  | 6    | 30,4 |     |
|             | 30,2                       | 228            | 0,8                  | MR 3I 101 - 38 × 300                       | 132 MC  | 6    | 29,8 |     |
|             | 31,2                       | 220            | 2,24                 | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 44,9 |     |
|             | 31,4                       | 219            | 1,18                 | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 44,5 |     |
|             | 31,4                       | 219            | 1,6                  | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 44,5 |     |
|             | 32,5                       | 212            | 3,15                 | MR 3I 160 - 38 × 300                       | 132 M   | 4    | 43,1 |     |
|             | 33,8                       | 203            | 0,85                 | MR 3I 101 - 38 × 300                       | 132 M   | 4    | 41,4 |     |
|             | 34,3                       | 201            | 2,36                 | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 40,9 |     |
|             | 34,6                       | 199            | 1,32                 | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 40,5 |     |
|             | 34,6                       | 199            | 1,8                  | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 40,5 |     |
|             | 37,1                       | 185            | 0,95                 | MR 3I 101 - 38 × 300                       | 132 M   | 4    | 37,7 |     |
|             | 37,3                       | 185            | 2,36                 | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 37,6 |     |
|             | 37,6                       | 183            | 1,32                 | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 37,2 |     |
|             | 37,6                       | 183            | 1,7                  | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 37,2 |     |
|             | 40,6                       | 169            | 1,06                 | MR 3I 101 - 38 × 300                       | 132 M   | 4    | 34,5 |     |
|             | 41,1                       | 167            | 2,8                  | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 34   |     |
|             | 41,9                       | 164            | 1,6                  | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 33,4 |     |
|             | 41,9                       | 164            | 2                    | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 33,4 |     |
|             | 44,4                       | 158            | 1,32                 | MR 2I 125 - 42 × 350                       | 160 M   | 6    | 20,3 |     |
|             | 46                         | 149            | 3,15                 | MR 3I 140 - 38 × 300                       | 132 M   | 4    | 30,4 |     |
|             | 46,4                       | 148            | 1,7                  | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 30,2 |     |
|             | 46,4                       | 148            | 2,36                 | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 30,2 |     |
|             | 47                         | 146            | 0,9                  | MR 3I 100 - 38 × 300                       | 132 M   | 4    | 29,8 |     |
|             | 47                         | 146            | 1,18                 | MR 3I 101 - 38 × 300                       | 132 M   | 4    | 29,8 |     |
|             | 47,4                       | 148            | 1,6                  | MR 2I 125 - 38 × 300                       | 132 MC  | 6    | 19   |     |
|             | 50,1                       | 137            | 0,95                 | MR 3I 100 - 38 × 300                       | 132 MC  | 6    | 18   |     |
|             | 50,1                       | 137            | 1,25                 | MR 3I 101 - 38 × 300                       | 132 MC  | 6    | 18   |     |
|             | 51                         | 135            | 1,9                  | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 27,4 |     |
|             | 51                         | 135            | 2,5                  | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 27,4 |     |
|             | 56,1                       | 123            | 1                    | MR 3I 100 - 38 × 300                       | 132 M   | 4    | 25   |     |
|             | 56,1                       | 123            | 1,32                 | MR 3I 101 - 38 × 300                       | 132 M   | 4    | 25   |     |
|             | 56,7                       | 124            | 1,9                  | MR 2I 125 - 42 × 350                       | 160 M   | 6    | 15,9 |     |
|             | 57,7                       | 122            | 1,7                  | MR 2I 125 - 38 × 300                       | 132 M   | 4    | 24,3 |     |
|             | 59,2                       | 119            | 2,12                 | MR 2I 125 - 38 × 300                       | 132 MC  | 6    | 15,2 |     |
|             | 59,6                       | 115            | 2,24                 | MR 3I 125 - 38 × 300                       | 132 M   | 4    | 23,5 |     |
|             | 59,6                       | 115            | 3                    | MR 3I 126 - 38 × 300                       | 132 M   | 4    | 23,5 |     |
|             | 59,8                       | 117            | 0,9                  | MR 2I 100 - 28 × 250                       | 132 M * | 4    | 23,4 |     |
| 60,1        | 117                        | 0,9            | MR 2I 100 - 38 × 300 | 132 MC                                     | 6       | 15   |      |     |
| 60,1        | 117                        | 0,9            | MR 2I 100 - 42 × 350 | 160 M                                      | 6       | 15   |      |     |
| 61,6        | 112                        | 1,12           | MR 3I 100 - 38 × 300 | 132 M                                      | 4       | 22,7 |      |     |
| 61,6        | 112                        | 1,5            | MR 3I 101 - 38 × 300 | 132 M                                      | 4       | 22,7 |      |     |
| 63,7        | 110                        | 2,24           | MR 2I 125 - 38 × 300 | 132 MC                                     | 6       | 14,1 |      |     |
| 66,3        | 104                        | 2,5            | MR 3I 125 - 38 × 300 | 132 M                                      | 4       | 21,1 |      |     |
| 67,4        | 102                        | 1,25           | MR 3I 100 - 38 × 300 | 132 M                                      | 4       | 20,8 |      |     |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |            |         |   | $i$  |
|-------------|----------------------------|----------------|-------|--------------------------------------------|------------|---------|---|------|
| 1)          |                            |                |       | 2)                                         |            |         |   |      |
| 7,5         | 67,4                       | 102            | 1,7   | MR 3I 101                                  | - 38 × 300 | 132 M   | 4 | 20,8 |
|             | 72,6                       | 97             | 1,18  | MR 2I 100                                  | - 28 × 250 | 132 M * | 4 | 19,3 |
|             | 72,6                       | 97             | 1,4   | MR 2I 101                                  | - 28 × 250 | 132 M * | 4 | 19,3 |
|             | 73,1                       | 96             | 1,18  | MR 2I 100                                  | - 38 × 300 | 132 MC  | 6 | 12,3 |
|             | 73,1                       | 96             | 1,18  | MR 2I 100                                  | - 42 × 350 | 160 M   | 6 | 12,3 |
|             | 73,1                       | 96             | 1,4   | MR 2I 101                                  | - 38 × 300 | 132 MC  | 6 | 12,3 |
|             | 73,1                       | 96             | 1,4   | MR 2I 101                                  | - 42 × 350 | 160 M   | 6 | 12,3 |
|             | 73,7                       | 95             | 2,36  | MR 2I 125                                  | - 38 × 300 | 132 M   | 4 | 19   |
|             | 73,7                       | 95             | 3     | MR 2I 126                                  | - 38 × 300 | 132 M   | 4 | 19   |
|             | 77,9                       | 88             | 1,4   | MR 3I 100                                  | - 38 × 300 | 132 M   | 4 | 18   |
|             | 77,9                       | 88             | 1,9   | MR 3I 101                                  | - 38 × 300 | 132 M   | 4 | 18   |
|             | 80,8                       | 87             | 1,4   | MR 2I 100                                  | - 28 × 250 | 132 M * | 4 | 17,3 |
|             | 80,8                       | 87             | 1,7   | MR 2I 101                                  | - 28 × 250 | 132 M * | 4 | 17,3 |
|             | 81,3                       | 86             | 1,4   | MR 2I 100                                  | - 38 × 300 | 132 MC  | 6 | 11,1 |
|             | 81,3                       | 86             | 1,4   | MR 2I 100                                  | - 42 × 350 | 160 M   | 6 | 11,1 |
|             | 81,3                       | 86             | 1,7   | MR 2I 101                                  | - 38 × 300 | 132 MC  | 6 | 11,1 |
|             | 81,3                       | 86             | 1,7   | MR 2I 101                                  | - 42 × 350 | 160 M   | 6 | 11,1 |
|             | 82,7                       | 85             | 2,8   | MR 2I 125                                  | - 38 × 300 | 132 M   | 4 | 16,9 |
|             | 86,1                       | 80             | 1,6   | MR 3I 100                                  | - 38 × 300 | 132 M   | 4 | 16,3 |
|             | 86,1                       | 80             | 2,12  | MR 3I 101                                  | - 38 × 300 | 132 M   | 4 | 16,3 |
|             | 86,2                       | 81             | 0,85  | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 16,3 |
|             | 89,2                       | 79             | 1,6   | MR 2I 100                                  | - 28 × 250 | 132 M * | 4 | 15,7 |
|             | 89,2                       | 79             | 2     | MR 2I 101                                  | - 28 × 250 | 132 M * | 4 | 15,7 |
|             | 89,8                       | 78             | 1,6   | MR 2I 100                                  | - 38 × 300 | 132 MC  | 6 | 10   |
|             | 89,8                       | 78             | 2     | MR 2I 101                                  | - 38 × 300 | 132 MC  | 6 | 10   |
|             | 89,8                       | 78             | 2     | MR 2I 101                                  | - 42 × 350 | 160 M   | 6 | 10   |
|             | 92,1                       | 76             | 3,15  | MR 2I 125                                  | - 38 × 300 | 132 M   | 4 | 15,2 |
|             | 93,5                       | 75             | 1,4   | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 15   |
|             | 96,6                       | 73             | 0,8   | MR 2I 80                                   | - 28 × 250 | 132 M * | 4 | 14,5 |
|             | 96,6                       | 73             | 1     | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 14,5 |
|             | 98,6                       | 71             | 1,7   | MR 2I 100                                  | - 38 × 300 | 132 MC  | 6 | 9,13 |
|             | 98,6                       | 71             | 2,36  | MR 2I 101                                  | - 38 × 300 | 132 MC  | 6 | 9,13 |
|             | 99                         | 71             | 3,35  | MR 2I 125                                  | - 38 × 300 | 132 M   | 4 | 14,1 |
|             | 102                        | 69             | 1,7   | MR 2I 100                                  | - 28 × 250 | 132 M * | 4 | 13,8 |
|             | 102                        | 69             | 2,12  | MR 2I 101                                  | - 28 × 250 | 132 M * | 4 | 13,8 |
|             | 104                        | 68             | 1,7   | MR 2I 100                                  | - 42 × 350 | 160 M   | 6 | 8,67 |
|             | 104                        | 68             | 2,24  | MR 2I 101                                  | - 42 × 350 | 160 M   | 6 | 8,67 |
|             | 108                        | 65             | 0,95  | MR 2I 80                                   | - 28 × 250 | 132 M * | 4 | 13   |
|             | 108                        | 65             | 0,8   | MR 2I 80                                   | - 38 × 300 | 132 M   | 4 | 12,9 |
|             | 108                        | 65             | 1,18  | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 13   |
|             | 110                        | 64             | 3,75  | MR 2I 125                                  | - 38 × 300 | 132 M   | 4 | 12,7 |
|             | 112                        | 62             | 1,9   | MR 2I 100                                  | - 28 × 250 | 132 M * | 4 | 12,5 |
|             | 112                        | 62             | 2,5   | MR 2I 101                                  | - 28 × 250 | 132 M * | 4 | 12,5 |
|             | 114                        | 62             | 1,8   | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 12,3 |
|             | 114                        | 62             | 2,24  | MR 2I 101                                  | - 38 × 300 | 132 M   | 4 | 12,3 |
|             | 119                        | 59             | 1     | MR 2I 80                                   | - 28 × 250 | 132 M * | 4 | 11,8 |
|             | 119                        | 59             | 1,25  | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 11,8 |
|             | 120                        | 58             | 1,4   | MR 2I 81                                   | - 38 × 300 | 132 MC  | 6 | 7,5  |
|             | 126                        | 56             | 2,12  | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 11,1 |
|             | 126                        | 56             | 2,65  | MR 2I 101                                  | - 38 × 300 | 132 M   | 4 | 11,1 |
|             | 133                        | 53             | 1,12  | MR 2I 80                                   | - 28 × 250 | 132 M * | 4 | 10,6 |
|             | 133                        | 53             | 1,06  | MR 2I 80                                   | - 38 × 300 | 132 M   | 4 | 10,6 |
|             | 133                        | 53             | 1,5   | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 10,6 |
|             | 133                        | 53             | 1,25  | MR 2I 81                                   | - 38 × 300 | 132 M   | 4 | 10,6 |
|             | 140                        | 50             | 2,36  | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 10   |
|             | 140                        | 50             | 3,15  | MR 2I 101                                  | - 38 × 300 | 132 M   | 4 | 10   |
|             | 149                        | 47,2           | 1,18  | MR 2I 80                                   | - 38 × 300 | 132 M   | 4 | 9,41 |
|             | 149                        | 47,2           | 1,5   | MR 2I 81                                   | - 38 × 300 | 132 M   | 4 | 9,41 |
|             | 150                        | 46,9           | 1,25  | MR 2I 80                                   | - 28 × 250 | 132 M * | 4 | 9,36 |
|             | 150                        | 46,9           | 1,7   | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 9,36 |
|             | 153                        | 45,8           | 2,65  | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 9,13 |
|             | 165                        | 42,4           | 1,4   | MR 2I 80                                   | - 38 × 300 | 132 M   | 4 | 8,46 |
|             | 165                        | 42,4           | 1,8   | MR 2I 81                                   | - 38 × 300 | 132 M   | 4 | 8,46 |
|             | 168                        | 41,9           | 2,8   | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 8,35 |
|             | 175                        | 40,1           | 0,95  | MR 2I 64                                   | - 28 × 250 | 132 M * | 4 | 8    |
|             | 187                        | 37,6           | 1,6   | MR 2I 80                                   | - 38 × 300 | 132 M   | 4 | 7,5  |
|             | 187                        | 37,6           | 2,12  | MR 2I 81                                   | - 38 × 300 | 132 M   | 4 | 7,5  |
|             | 194                        | 36,3           | 1,06  | MR 2I 64                                   | - 28 × 250 | 132 M * | 4 | 7,23 |
|             | 194                        | 36,2           | 3,35  | MR 2I 100                                  | - 38 × 300 | 132 M   | 4 | 7,22 |
|             | 196                        | 35,8           | 1,7   | MR 2I 80                                   | - 28 × 250 | 132 M * | 4 | 7,13 |
|             | 196                        | 35,8           | 2,24  | MR 2I 81                                   | - 28 × 250 | 132 M * | 4 | 7,13 |

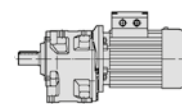
| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$     | Riduttore - Motore<br>Gear reducer - Motor |            |        |   |      |      | $i$ |
|-------------|----------------------------|----------------|-----------|--------------------------------------------|------------|--------|---|------|------|-----|
| 1)          | 2)                         |                |           |                                            |            |        |   |      |      |     |
| 7,5         | 213                        | 32,9           | 1,18      | MR 2I 64                                   | - 28 × 250 | 132 M  | * | 4    | 6,57 |     |
|             | 220                        | 31,9           | 1,8       | MR 2I 80                                   | - 38 × 300 | 132 M  |   | 4    | 6,36 |     |
|             | 220                        | 31,9           | 2,5       | MR 2I 81                                   | - 38 × 300 | 132 M  |   | 4    | 6,36 |     |
|             | 245                        | 28,6           | 2         | MR 2I 80                                   | - 38 × 300 | 132 M  |   | 4    | 5,71 |     |
|             | 245                        | 28,6           | 2,5       | MR 2I 81                                   | - 38 × 300 | 132 M  |   | 4    | 5,71 |     |
|             | 249                        | 28,2           | 1,32      | MR 2I 64                                   | - 28 × 250 | 132 M  | * | 4    | 5,63 |     |
|             | 277                        | 25,4           | 1,32      | MR 2I 64                                   | - 28 × 250 | 132 M  | * | 4    | 5,06 |     |
|             | 282                        | 24,9           | 2,36      | MR 2I 80                                   | - 38 × 300 | 132 M  |   | 4    | 4,96 |     |
|             | 282                        | 24,9           | 2,5       | MR 2I 81                                   | - 38 × 300 | 132 M  |   | 4    | 4,96 |     |
|             | 350                        | 20,1           | 1,32      | MR 2I 64                                   | - 28 × 250 | 132 M  | * | 4    | 4    |     |
| 353         | 19,9                       | 2,5            | MR 2I 80  | - 38 × 300                                 | 132 M      |        | 4 | 3,96 |      |     |
| 9,2         | 11,4                       | 741            | 1,12      | MR 3I 180                                  | - 38 × 300 | 132 MB |   | 4    | 123  |     |
|             | 11,7                       | 720            | 0,85      | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 119  |     |
|             | 13,9                       | 607            | 1,5       | MR 3I 180                                  | - 38 × 300 | 132 MB |   | 4    | 101  |     |
|             | 14                         | 604            | 1,12      | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 100  |     |
|             | 16,6                       | 507            | 1,8       | MR 3I 180                                  | - 38 × 300 | 132 MB |   | 4    | 84,2 |     |
|             | 16,7                       | 505            | 1,4       | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 83,8 |     |
|             | 18,7                       | 451            | 0,95      | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 74,8 |     |
|             | 21,2                       | 397            | 2,5       | MR 3I 180                                  | - 38 × 300 | 132 MB |   | 4    | 65,9 |     |
|             | 21,3                       | 395            | 1,7       | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 65,6 |     |
|             | 22,9                       | 368            | 1,32      | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 61   |     |
|             | 23,4                       | 361            | 0,95      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 59,9 |     |
|             | 24,4                       | 346            | 2         | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 57,4 |     |
|             | 24,5                       | 344            | 2,8       | MR 3I 180                                  | - 38 × 300 | 132 MB |   | 4    | 57,1 |     |
|             | 25,3                       | 334            | 1,4       | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 55,4 |     |
|             | 25,5                       | 330            | 0,95      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 54,8 |     |
|             | 27,9                       | 302            | 1,6       | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 50,2 |     |
|             | 28,2                       | 300            | 2,36      | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 49,7 |     |
|             | 28,4                       | 297            | 0,9       | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 49,3 |     |
|             | 28,4                       | 297            | 1,12      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 49,3 |     |
|             | 28,8                       | 293            | 3,15      | MR 3I 180                                  | - 38 × 300 | 132 MB |   | 4    | 48,7 |     |
|             | 31,2                       | 270            | 1,8       | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 44,9 |     |
|             | 31,4                       | 268            | 1         | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 44,5 |     |
|             | 31,4                       | 268            | 1,32      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 44,5 |     |
|             | 32,5                       | 260            | 2,65      | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 43,1 |     |
|             | 34,3                       | 246            | 1,9       | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 40,9 |     |
|             | 34,6                       | 244            | 1,06      | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 40,5 |     |
|             | 34,6                       | 244            | 1,4       | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 40,5 |     |
|             | 37,1                       | 227            | 0,8       | MR 3I 101                                  | - 38 × 300 | 132 MB |   | 4    | 37,7 |     |
|             | 37,1                       | 227            | 3         | MR 3I 160                                  | - 38 × 300 | 132 MB |   | 4    | 37,7 |     |
|             | 37,3                       | 226            | 2         | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 37,6 |     |
|             | 37,6                       | 224            | 1,12      | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 37,2 |     |
|             | 37,6                       | 224            | 1,4       | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 37,2 |     |
|             | 40,6                       | 208            | 0,85      | MR 3I 101                                  | - 38 × 300 | 132 MB |   | 4    | 34,5 |     |
|             | 41,1                       | 205            | 2,24      | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 34   |     |
|             | 41,9                       | 201            | 1,25      | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 33,4 |     |
|             | 41,9                       | 201            | 1,7       | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 33,4 |     |
|             | 46                         | 183            | 2,65      | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 30,4 |     |
|             | 46,4                       | 182            | 1,4       | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 30,2 |     |
|             | 46,4                       | 182            | 1,9       | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 30,2 |     |
|             | 47                         | 180            | 1         | MR 3I 101                                  | - 38 × 300 | 132 MB |   | 4    | 29,8 |     |
|             | 51                         | 165            | 1,5       | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 27,4 |     |
|             | 51                         | 165            | 2,12      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 27,4 |     |
|             | 53,7                       | 157            | 3,15      | MR 3I 140                                  | - 38 × 300 | 132 MB |   | 4    | 26,1 |     |
|             | 56,1                       | 150            | 0,85      | MR 3I 100                                  | - 38 × 300 | 132 MB |   | 4    | 25   |     |
|             | 56,1                       | 150            | 1,12      | MR 3I 101                                  | - 38 × 300 | 132 MB |   | 4    | 25   |     |
|             | 57,7                       | 149            | 1,4       | MR 2I 125                                  | - 38 × 300 | 132 MB |   | 4    | 24,3 |     |
|             | 59,6                       | 141            | 1,8       | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 23,5 |     |
|             | 59,6                       | 141            | 2,36      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 23,5 |     |
|             | 61,6                       | 137            | 0,9       | MR 3I 100                                  | - 38 × 300 | 132 MB |   | 4    | 22,7 |     |
|             | 61,6                       | 137            | 1,25      | MR 3I 101                                  | - 38 × 300 | 132 MB |   | 4    | 22,7 |     |
|             | 66,3                       | 127            | 2         | MR 3I 125                                  | - 38 × 300 | 132 MB |   | 4    | 21,1 |     |
|             | 66,3                       | 127            | 2,65      | MR 3I 126                                  | - 38 × 300 | 132 MB |   | 4    | 21,1 |     |
| 67,4        | 125                        | 1              | MR 3I 100 | - 38 × 300                                 | 132 MB     |        | 4 | 20,8 |      |     |
| 67,4        | 125                        | 1,32           | MR 3I 101 | - 38 × 300                                 | 132 MB     |        | 4 | 20,8 |      |     |
| 73,7        | 117                        | 1,9            | MR 2I 125 | - 38 × 300                                 | 132 MB     |        | 4 | 19   |      |     |
| 73,7        | 117                        | 2,36           | MR 2I 126 | - 38 × 300                                 | 132 MB     |        | 4 | 19   |      |     |
| 77,9        | 108                        | 1,18           | MR 3I 100 | - 38 × 300                                 | 132 MB     |        | 4 | 18   |      |     |



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor |        |   |      | $i$ |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|---|------|-----|
| 1)          |                            |                |       | 2)                                         |        |   |      |     |
| 9,2         | 77,9                       | 108            | 1,6   | MR 3I 101 - 38 × 300                       | 132 MB | 4 | 18   |     |
|             | 82,7                       | 104            | 2,24  | MR 2I 125 - 38 × 300                       | 132 MB | 4 | 16,9 |     |
|             | 82,7                       | 104            | 2,8   | MR 2I 126 - 38 × 300                       | 132 MB | 4 | 16,9 |     |
|             | 86,1                       | 98             | 1,32  | MR 3I 100 - 38 × 300                       | 132 MB | 4 | 16,3 |     |
|             | 86,1                       | 98             | 1,7   | MR 3I 101 - 38 × 300                       | 132 MB | 4 | 16,3 |     |
|             | 92,1                       | 93             | 2,65  | MR 2I 125 - 38 × 300                       | 132 MB | 4 | 15,2 |     |
|             | 93,5                       | 92             | 1,12  | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 15   |     |
|             | 99                         | 87             | 2,65  | MR 2I 125 - 38 × 300                       | 132 MB | 4 | 14,1 |     |
|             | 110                        | 78             | 3,15  | MR 2I 125 - 38 × 300                       | 132 MB | 4 | 12,7 |     |
|             | 114                        | 76             | 1,5   | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 12,3 |     |
|             | 114                        | 76             | 1,8   | MR 2I 101 - 38 × 300                       | 132 MB | 4 | 12,3 |     |
|             | 122                        | 71             | 3,35  | MR 2I 125 - 38 × 300                       | 132 MB | 4 | 11,5 |     |
|             | 126                        | 68             | 1,7   | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 11,1 |     |
|             | 126                        | 68             | 2,12  | MR 2I 101 - 38 × 300                       | 132 MB | 4 | 11,1 |     |
|             | 133                        | 65             | 0,85  | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 10,6 |     |
|             | 133                        | 65             | 1,06  | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 10,6 |     |
|             | 140                        | 62             | 1,9   | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 10   |     |
|             | 140                        | 62             | 2,5   | MR 2I 101 - 38 × 300                       | 132 MB | 4 | 10   |     |
|             | 149                        | 58             | 1     | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 9,41 |     |
|             | 149                        | 58             | 1,25  | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 9,41 |     |
|             | 153                        | 56             | 2,12  | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 9,13 |     |
|             | 153                        | 56             | 2,8   | MR 2I 101 - 38 × 300                       | 132 MB | 4 | 9,13 |     |
|             | 165                        | 52             | 1,12  | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 8,46 |     |
|             | 165                        | 52             | 1,5   | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 8,46 |     |
|             | 168                        | 51             | 2,36  | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 8,35 |     |
|             | 168                        | 51             | 3,15  | MR 2I 101 - 38 × 300                       | 132 MB | 4 | 8,35 |     |
|             | 187                        | 46,1           | 1,25  | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 7,5  |     |
|             | 187                        | 46,1           | 1,7   | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 7,5  |     |
|             | 194                        | 44,4           | 2,65  | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 7,22 |     |
|             | 214                        | 40,2           | 3     | MR 2I 100 - 38 × 300                       | 132 MB | 4 | 6,53 |     |
|             | 220                        | 39,1           | 1,5   | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 6,36 |     |
|             | 220                        | 39,1           | 2     | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 6,36 |     |
|             | 245                        | 35,1           | 1,7   | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 5,71 |     |
|             | 245                        | 35,1           | 2,12  | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 5,71 |     |
|             | 282                        | 30,5           | 1,9   | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 4,96 |     |
|             | 282                        | 30,5           | 2,12  | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 4,96 |     |
|             | 353                        | 24,4           | 2     | MR 2I 80 - 38 × 300                        | 132 MB | 4 | 3,96 |     |
|             | 353                        | 24,4           | 2,12  | MR 2I 81 - 38 × 300                        | 132 MB | 4 | 3,96 |     |
| 11          | 10,7                       | 943            | 1     | MR 3I 180 - 42 × 350                       | 160 L  | 6 | 84,2 |     |
|             | 11,4                       | 886            | 0,95  | MR 3I 180 - 38 × 300                       | 132 MC | 4 | 123  |     |
|             | 13,3                       | 756            | 0,9   | MR 3I 160 - 42 × 350                       | 160 L  | 6 | 67,4 |     |
|             | 13,6                       | 740            | 1,12  | MR 3I 180 - 42 × 350                       | 160 M  | 4 | 103  |     |
|             | 13,9                       | 726            | 1,32  | MR 3I 180 - 38 × 300                       | 132 MC | 4 | 101  |     |
|             | 14                         | 722            | 0,95  | MR 3I 160 - 38 × 300                       | 132 MC | 4 | 100  |     |
|             | 16,6                       | 606            | 1,5   | MR 3I 180 - 38 × 300                       | 132 MC | 4 | 84,2 |     |
|             | 16,6                       | 606            | 1,5   | MR 3I 180 - 42 × 350                       | 160 M  | 4 | 84,2 |     |
|             | 16,7                       | 603            | 1,12  | MR 3I 160 - 38 × 300                       | 132 MC | 4 | 83,8 |     |
|             | 16,7                       | 603            | 1,12  | MR 3I 160 - 42 × 350                       | 160 M  | 4 | 83,8 |     |
|             | 17,9                       | 563            | 0,85  | MR 3I 140 - 42 × 350                       | 160 L  | 6 | 50,2 |     |
|             | 20,7                       | 488            | 1,9   | MR 3I 180 - 42 × 350                       | 160 M  | 4 | 67,8 |     |
|             | 20,8                       | 486            | 0,95  | MR 3I 140 - 42 × 350                       | 160 L  | 6 | 43,4 |     |
|             | 20,8                       | 486            | 1,4   | MR 3I 160 - 42 × 350                       | 160 M  | 4 | 67,4 |     |
|             | 21,2                       | 475            | 2     | MR 3I 180 - 38 × 300                       | 132 MC | 4 | 65,9 |     |
|             | 21,3                       | 473            | 1,5   | MR 3I 160 - 38 × 300                       | 132 MC | 4 | 65,6 |     |
|             | 22,5                       | 449            | 1,6   | MR 3I 160 - 42 × 350                       | 160 L  | 6 | 40   |     |
|             | 22,9                       | 440            | 1,06  | MR 3I 140 - 38 × 300                       | 132 MC | 4 | 61   |     |
|             | 22,9                       | 440            | 1,06  | MR 3I 140 - 42 × 350                       | 160 M  | 4 | 61   |     |
|             | 23,3                       | 432            | 0,8   | MR 3I 126 - 42 × 350                       | 160 L  | 6 | 38,5 |     |
|             | 23,4                       | 431            | 0,8   | MR 3I 126 - 38 × 300                       | 132 MC | 4 | 59,9 |     |
|             | 23,5                       | 430            | 2,12  | MR 3I 180 - 42 × 350                       | 160 M  | 4 | 59,6 |     |
|             | 24,3                       | 414            | 1,6   | MR 3I 160 - 42 × 350                       | 160 M  | 4 | 57,5 |     |
|             | 24,4                       | 413            | 1,7   | MR 3I 160 - 38 × 300                       | 132 MC | 4 | 57,4 |     |
|             | 24,5                       | 412            | 2,36  | MR 3I 180 - 38 × 300                       | 132 MC | 4 | 57,1 |     |
|             | 25,3                       | 399            | 1,12  | MR 3I 140 - 38 × 300                       | 132 MC | 4 | 55,4 |     |
|             | 25,3                       | 399            | 1,12  | MR 3I 140 - 42 × 350                       | 160 M  | 4 | 55,4 |     |
|             | 25,5                       | 395            | 0,8   | MR 3I 126 - 38 × 300                       | 132 MC | 4 | 54,8 |     |
|             | 25,6                       | 393            | 1,25  | MR 3I 140 - 42 × 350                       | 160 L  | 6 | 35,1 |     |
|             | 25,8                       | 390            | 0,9   | MR 3I 126 - 42 × 350                       | 160 L  | 6 | 34,8 |     |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$                | Riduttore - Motore<br>Gear reducer - Motor |        |      |      | $i$ |
|-------------|----------------------------|----------------|----------------------|--------------------------------------------|--------|------|------|-----|
| 1)          |                            |                |                      | 2)                                         |        |      |      |     |
| 11          | 26,4                       | 382            | 2,5                  | MR 3I 180 - 42 × 350                       | 160 M  | 4    | 53,1 |     |
|             | 26,5                       | 380            | 1,8                  | MR 3I 160 - 42 × 350                       | 160 M  | 4    | 52,8 |     |
|             | 26,5                       | 380            | 2,5                  | MR 3I 180 - 38 × 300                       | 132 MC | 4    | 52,7 |     |
|             | 27,9                       | 362            | 1,32                 | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 50,2 |     |
|             | 27,9                       | 362            | 1,32                 | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 50,2 |     |
|             | 28,2                       | 358            | 2                    | MR 3I 160 - 38 × 300                       | 132 MC | 4    | 49,7 |     |
|             | 28,4                       | 355            | 0,95                 | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 49,3 |     |
|             | 28,4                       | 355            | 0,95                 | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 49,3 |     |
|             | 28,8                       | 351            | 2,65                 | MR 3I 180 - 38 × 300                       | 132 MC | 4    | 48,7 |     |
|             | 30,3                       | 333            | 2,12                 | MR 3I 160 - 42 × 350                       | 160 M  | 4    | 46,2 |     |
|             | 30,4                       | 331            | 2,8                  | MR 3I 180 - 42 × 350                       | 160 M  | 4    | 46   |     |
|             | 31,2                       | 323            | 1,5                  | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 44,9 |     |
|             | 31,4                       | 321            | 0,8                  | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 44,5 |     |
|             | 31,4                       | 321            | 1,12                 | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 44,5 |     |
|             | 32,3                       | 312            | 1,4                  | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 43,4 |     |
|             | 32,5                       | 311            | 2,12                 | MR 3I 160 - 38 × 300                       | 132 MC | 4    | 43,1 |     |
|             | 32,6                       | 309            | 0,8                  | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 42,9 |     |
|             | 32,6                       | 309            | 1                    | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 42,9 |     |
|             | 34,3                       | 294            | 1,6                  | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 40,9 |     |
|             | 34,6                       | 291            | 0,9                  | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 40,5 |     |
|             | 34,6                       | 291            | 1,18                 | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 40,5 |     |
|             | 35                         | 288            | 2,5                  | MR 3I 160 - 42 × 350                       | 160 M  | 4    | 40   |     |
|             | 35,6                       | 283            | 1,7                  | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 39,3 |     |
|             | 36,3                       | 278            | 0,95                 | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 38,5 |     |
|             | 36,3                       | 278            | 1,18                 | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 38,5 |     |
|             | 37,1                       | 272            | 2,5                  | MR 3I 160 - 38 × 300                       | 132 MC | 4    | 37,7 |     |
|             | 37,3                       | 271            | 1,6                  | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 37,6 |     |
|             | 37,6                       | 268            | 0,95                 | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 37,2 |     |
|             | 37,6                       | 268            | 1,18                 | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 37,2 |     |
|             | 39,9                       | 253            | 1,9                  | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 35,1 |     |
|             | 40,2                       | 251            | 1                    | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 34,8 |     |
|             | 40,2                       | 251            | 1,4                  | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 34,8 |     |
|             | 40,3                       | 250            | 2,65                 | MR 3I 160 - 42 × 350                       | 160 M  | 4    | 34,7 |     |
|             | 41,1                       | 245            | 1,9                  | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 34   |     |
|             | 41,9                       | 241            | 1,06                 | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 33,4 |     |
|             | 41,9                       | 241            | 1,4                  | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 33,4 |     |
|             | 42,8                       | 235            | 3                    | MR 3I 160 - 38 × 300                       | 132 MC | 4    | 32,7 |     |
|             | 43,8                       | 230            | 2                    | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 32   |     |
|             | 44,2                       | 228            | 1,12                 | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 31,7 |     |
|             | 44,2                       | 228            | 1,5                  | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 31,7 |     |
|             | 46                         | 219            | 2,24                 | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 30,4 |     |
|             | 46,1                       | 219            | 3,15                 | MR 3I 160 - 42 × 350                       | 160 M  | 4    | 30,4 |     |
|             | 46,4                       | 217            | 1,18                 | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 30,2 |     |
|             | 46,4                       | 217            | 1,6                  | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 30,2 |     |
|             | 47                         | 215            | 0,8                  | MR 3I 101 - 38 × 300                       | 132 MC | 4    | 29,8 |     |
|             | 47,6                       | 212            | 2,12                 | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 29,4 |     |
|             | 48,1                       | 210            | 1,18                 | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 29,1 |     |
|             | 48,1                       | 210            | 1,5                  | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 29,1 |     |
|             | 51                         | 198            | 1,32                 | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 27,4 |     |
|             | 51                         | 198            | 1,7                  | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 27,4 |     |
|             | 51,9                       | 198            | 3,15                 | MR 2I 160 - 42 × 350                       | 160 L  | 6    | 17,3 |     |
|             | 52,6                       | 192            | 2,36                 | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 26,6 |     |
|             | 53,6                       | 188            | 1,32                 | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 26,1 |     |
|             | 53,6                       | 188            | 1,7                  | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 26,1 |     |
|             | 53,7                       | 188            | 2,65                 | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 26,1 |     |
|             | 56,1                       | 180            | 0,9                  | MR 3I 101 - 38 × 300                       | 132 MC | 4    | 25   |     |
|             | 57,7                       | 178            | 1,18                 | MR 2I 125 - 38 × 300                       | 132 MC | 4    | 24,3 |     |
|             | 58,8                       | 171            | 2,8                  | MR 3I 140 - 42 × 350                       | 160 M  | 4    | 23,8 |     |
|             | 59,3                       | 170            | 1,5                  | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 23,6 |     |
|             | 59,3                       | 170            | 2                    | MR 3I 126 - 42 × 350                       | 160 M  | 4    | 23,6 |     |
|             | 59,4                       | 170            | 2,65                 | MR 3I 140 - 38 × 300                       | 132 MC | 4    | 23,6 |     |
|             | 59,6                       | 169            | 1,5                  | MR 3I 125 - 38 × 300                       | 132 MC | 4    | 23,5 |     |
|             | 59,6                       | 169            | 2                    | MR 3I 126 - 38 × 300                       | 132 MC | 4    | 23,5 |     |
|             | 61,6                       | 164            | 1,06                 | MR 3I 101 - 38 × 300                       | 132 MC | 4    | 22,7 |     |
|             | 65,2                       | 155            | 1,6                  | MR 3I 125 - 42 × 350                       | 160 M  | 4    | 21,5 |     |
| 65,2        | 155                        | 2,24           | MR 3I 126 - 42 × 350 | 160 M                                      | 4      | 21,5 |      |     |
| 66,3        | 152                        | 1,7            | MR 3I 125 - 38 × 300 | 132 MC                                     | 4      | 21,1 |      |     |
| 66,3        | 152                        | 2,24           | MR 3I 126 - 38 × 300 | 132 MC                                     | 4      | 21,1 |      |     |
| 67,4        | 150                        | 0,85           | MR 3I 100 - 38 × 300 | 132 MC                                     | 4      | 20,8 |      |     |
| 67,4        | 150                        | 1,12           | MR 3I 101 - 38 × 300 | 132 MC                                     | 4      | 20,8 |      |     |
| 68,6        | 147                        | 3,15           | MR 3I 140 - 42 × 350 | 160 M                                      | 4      | 20,4 |      |     |
| 69,1        | 149                        | 1,4            | MR 2I 125 - 42 × 350 | 160 M                                      | 4      | 20,3 |      |     |



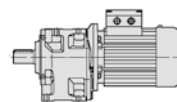


| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|
| 1)          |                            |                |       | 2)                                         |        |
| 11          | 70,9                       | 145            | 2,24  | MR 2I 126 - 42 × 350 160 L                 | 6 12,7 |
|             | 73,1                       | 141            | 0,8   | MR 2I 100 - 42 × 350 160 L                 | 6 12,3 |
|             | 73,1                       | 141            | 1     | MR 2I 101 - 42 × 350 160 L                 | 6 12,3 |
|             | 73,7                       | 140            | 1,6   | MR 2I 125 - 38 × 300 132 MC                | 4 19   |
|             | 73,7                       | 140            | 2     | MR 2I 126 - 38 × 300 132 MC                | 4 19   |
|             | 73,7                       | 140            | 2,8   | MR 2I 140 - 38 × 300 132 MC                | 4 19   |
|             | 76,2                       | 132            | 1,9   | MR 3I 125 - 42 × 350 160 M                 | 4 18,4 |
|             | 76,2                       | 132            | 2,5   | MR 3I 126 - 42 × 350 160 M                 | 4 18,4 |
|             | 77,9                       | 129            | 0,95  | MR 3I 100 - 38 × 300 132 MC                | 4 18   |
|             | 77,9                       | 129            | 1,32  | MR 3I 101 - 38 × 300 132 MC                | 4 18   |
|             | 81,3                       | 127            | 0,95  | MR 2I 100 - 42 × 350 160 L                 | 6 11,1 |
|             | 81,3                       | 127            | 1,18  | MR 2I 101 - 42 × 350 160 L                 | 6 11,1 |
|             | 82,7                       | 124            | 1,9   | MR 2I 125 - 38 × 300 132 MC                | 4 16,9 |
|             | 82,7                       | 124            | 2,36  | MR 2I 126 - 38 × 300 132 MC                | 4 16,9 |
|             | 84,7                       | 119            | 2,12  | MR 3I 125 - 42 × 350 160 M                 | 4 16,5 |
|             | 84,7                       | 119            | 2,8   | MR 3I 126 - 42 × 350 160 M                 | 4 16,5 |
|             | 86,1                       | 117            | 1,06  | MR 3I 100 - 38 × 300 132 MC                | 4 16,3 |
|             | 86,1                       | 117            | 1,5   | MR 3I 101 - 38 × 300 132 MC                | 4 16,3 |
|             | 88,2                       | 117            | 1,9   | MR 2I 125 - 42 × 350 160 M                 | 4 15,9 |
|             | 88,2                       | 117            | 2,36  | MR 2I 126 - 42 × 350 160 M                 | 4 15,9 |
|             | 88,2                       | 117            | 3,35  | MR 2I 140 - 42 × 350 160 M                 | 4 15,9 |
|             | 89,8                       | 115            | 1,06  | MR 2I 100 - 42 × 350 160 L                 | 6 10   |
|             | 89,8                       | 115            | 1,4   | MR 2I 101 - 42 × 350 160 L                 | 6 10   |
|             | 92,1                       | 112            | 2,24  | MR 2I 125 - 38 × 300 132 MC                | 4 15,2 |
|             | 92,1                       | 112            | 2,8   | MR 2I 126 - 38 × 300 132 MC                | 4 15,2 |
|             | 93,5                       | 110            | 0,95  | MR 2I 100 - 38 × 300 132 MC                | 4 15   |
|             | 93,5                       | 110            | 0,95  | MR 2I 100 - 42 × 350 160 M                 | 4 15   |
|             | 99                         | 104            | 2,24  | MR 2I 125 - 38 × 300 132 MC                | 4 14,1 |
|             | 99                         | 104            | 2,24  | MR 2I 125 - 42 × 350 160 M                 | 4 14,1 |
|             | 99                         | 104            | 2,8   | MR 2I 126 - 42 × 350 160 M                 | 4 14,1 |
|             | 104                        | 99             | 1,18  | MR 2I 100 - 42 × 350 160 L                 | 6 8,67 |
|             | 104                        | 99             | 1,5   | MR 2I 101 - 42 × 350 160 L                 | 6 8,67 |
|             | 110                        | 93             | 2,65  | MR 2I 125 - 38 × 300 132 MC                | 4 12,7 |
|             | 110                        | 93             | 2,65  | MR 2I 125 - 42 × 350 160 M                 | 4 12,7 |
|             | 114                        | 91             | 1,25  | MR 2I 100 - 38 × 300 132 MC                | 4 12,3 |
|             | 114                        | 91             | 1,25  | MR 2I 100 - 42 × 350 160 M                 | 4 12,3 |
|             | 114                        | 91             | 1,5   | MR 2I 101 - 38 × 300 132 MC                | 4 12,3 |
|             | 114                        | 91             | 1,5   | MR 2I 101 - 42 × 350 160 M                 | 4 12,3 |
|             | 115                        | 90             | 1,8   | MR 2I 101 - 42 × 350 160 L                 | 6 7,85 |
|             | 122                        | 84             | 2,8   | MR 2I 125 - 38 × 300 132 MC                | 4 11,5 |
|             | 123                        | 84             | 2,8   | MR 2I 125 - 42 × 350 160 M                 | 4 11,4 |
|             | 126                        | 81             | 1,4   | MR 2I 100 - 38 × 300 132 MC                | 4 11,1 |
|             | 126                        | 81             | 1,4   | MR 2I 100 - 42 × 350 160 M                 | 4 11,1 |
|             | 126                        | 82             | 2     | MR 2I 101 - 42 × 350 160 L                 | 6 7,14 |
|             | 126                        | 81             | 1,8   | MR 2I 101 - 38 × 300 132 MC                | 4 11,1 |
|             | 126                        | 81             | 1,8   | MR 2I 101 - 42 × 350 160 M                 | 4 11,1 |
|             | 133                        | 78             | 0,85  | MR 2I 81 - 38 × 300 132 MC                 | 4 10,6 |
|             | 134                        | 77             | 3,15  | MR 2I 125 - 38 × 300 132 MC                | 4 10,4 |
|             | 137                        | 75             | 3,15  | MR 2I 125 - 42 × 350 160 M                 | 4 10,2 |
|             | 140                        | 74             | 1,6   | MR 2I 100 - 38 × 300 132 MC                | 4 10   |
|             | 140                        | 74             | 1,6   | MR 2I 100 - 42 × 350 160 M                 | 4 10   |
|             | 140                        | 74             | 2,12  | MR 2I 101 - 38 × 300 132 MC                | 4 10   |
|             | 140                        | 74             | 2,12  | MR 2I 101 - 42 × 350 160 M                 | 4 10   |
|             | 149                        | 69             | 0,85  | MR 2I 80 - 38 × 300 132 MC                 | 4 9,41 |
|             | 149                        | 69             | 1,06  | MR 2I 81 - 38 × 300 132 MC                 | 4 9,41 |
|             | 152                        | 68             | 3,55  | MR 2I 125 - 42 × 350 160 M                 | 4 9,24 |
|             | 153                        | 67             | 1,8   | MR 2I 100 - 38 × 300 132 MC                | 4 9,13 |
|             | 153                        | 67             | 2,36  | MR 2I 101 - 38 × 300 132 MC                | 4 9,13 |
|             | 162                        | 64             | 1,8   | MR 2I 100 - 42 × 350 160 M                 | 4 8,67 |
|             | 162                        | 64             | 2,24  | MR 2I 101 - 42 × 350 160 M                 | 4 8,67 |
|             | 165                        | 62             | 0,95  | MR 2I 80 - 38 × 300 132 MC                 | 4 8,46 |
|             | 165                        | 62             | 1,25  | MR 2I 81 - 38 × 300 132 MC                 | 4 8,46 |
|             | 168                        | 61             | 1,9   | MR 2I 100 - 38 × 300 132 MC                | 4 8,35 |
|             | 168                        | 61             | 2,65  | MR 2I 101 - 38 × 300 132 MC                | 4 8,35 |
|             | 178                        | 58             | 2     | MR 2I 100 - 42 × 350 160 M                 | 4 7,85 |
|             | 178                        | 58             | 2,65  | MR 2I 101 - 42 × 350 160 M                 | 4 7,85 |
|             | 187                        | 55             | 1,06  | MR 2I 80 - 38 × 300 132 MC                 | 4 7,5  |
|             | 187                        | 55             | 1,4   | MR 2I 81 - 38 × 300 132 MC                 | 4 7,5  |
|             | 194                        | 53             | 2,24  | MR 2I 100 - 38 × 300 132 MC                | 4 7,22 |
|             | 194                        | 53             | 3     | MR 2I 101 - 38 × 300 132 MC                | 4 7,22 |
|             | 196                        | 53             | 2,24  | MR 2I 100 - 42 × 350 160 M                 | 4 7,14 |
|             | 196                        | 53             | 3     | MR 2I 101 - 42 × 350 160 M                 | 4 7,14 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|
| 1)          |                            |                |       | 2)                                         |        |
| 11          | 214                        | 48             | 2,5   | MR 2I 100 - 38 × 300 132 MC                | 4 6,53 |
|             | 214                        | 48             | 2,5   | MR 2I 100 - 42 × 350 160 M                 | 4 6,53 |
|             | 220                        | 46,8           | 1,25  | MR 2I 80 - 38 × 300 132 MC                 | 4 6,36 |
|             | 220                        | 46,8           | 1,7   | MR 2I 81 - 38 × 300 132 MC                 | 4 6,36 |
|             | 245                        | 42             | 1,4   | MR 2I 80 - 38 × 300 132 MC                 | 4 5,71 |
|             | 245                        | 42             | 1,7   | MR 2I 81 - 38 × 300 132 MC                 | 4 5,71 |
|             | 248                        | 41,5           | 2,8   | MR 2I 100 - 42 × 350 160 M                 | 4 5,65 |
|             | 268                        | 38,5           | 2,5   | MR 2I 100 - 38 × 300 132 MC                | 4 5,23 |
|             | 274                        | 37,6           | 3,15  | MR 2I 100 - 42 × 350 160 M                 | 4 5,11 |
|             | 282                        | 36,5           | 1,6   | MR 2I 80 - 38 × 300 132 MC                 | 4 4,96 |
|             | 282                        | 36,5           | 1,7   | MR 2I 81 - 38 × 300 132 MC                 | 4 4,96 |
|             | 342                        | 30,1           | 3,15  | MR 2I 100 - 42 × 350 160 M                 | 4 4,1  |
|             | 353                        | 29,1           | 1,7   | MR 2I 80 - 38 × 300 132 MC                 | 4 3,96 |
|             | 353                        | 29,1           | 1,7   | MR 2I 81 - 38 × 300 132 MC                 | 4 3,96 |
| 15          | 13,6                       | 1009           | 0,85  | MR 3I 180 - 42 × 350 160 L                 | 4 103  |
|             | 16,6                       | 827            | 1,12  | MR 3I 180 - 42 × 350 160 L                 | 4 84,2 |
|             | 16,7                       | 823            | 0,85  | MR 3I 160 - 42 × 350 160 L                 | 4 83,8 |
|             | 17                         | 811            | 1,18  | MR 3I 180 - 48 × 350 180 L                 | 6 53,1 |
|             | 20,7                       | 666            | 1,4   | MR 3I 180 - 42 × 350 160 L                 | 4 67,8 |
|             | 20,8                       | 662            | 1,06  | MR 3I 160 - 42 × 350 160 L                 | 4 67,4 |
|             | 21,2                       | 649            | 1,5   | MR 3I 180 - 48 × 350 180 L                 | 6 42,5 |
|             | 22,5                       | 612            | 1,18  | MR 3I 160 - 48 × 350 180 L                 | 6 40   |
|             | 22,9                       | 599            | 0,8   | MR 3I 140 - 42 × 350 160 L                 | 4 61   |
|             | 23,5                       | 586            | 1,6   | MR 3I 180 - 42 × 350 160 L                 | 4 59,6 |
|             | 24,3                       | 565            | 1,12  | MR 3I 160 - 42 × 350 160 L                 | 4 57,5 |
|             | 25,3                       | 544            | 0,85  | MR 3I 140 - 42 × 350 160 L                 | 4 55,4 |
|             | 26,4                       | 521            | 1,8   | MR 3I 180 - 42 × 350 160 L                 | 4 53,1 |
|             | 26,5                       | 519            | 1,32  | MR 3I 160 - 42 × 350 160 L                 | 4 52,8 |
|             | 27,9                       | 493            | 0,95  | MR 3I 140 - 42 × 350 160 L                 | 4 50,2 |
|             | 30,3                       | 454            | 1,5   | MR 3I 160 - 42 × 350 160 L                 | 4 46,2 |
|             | 30,4                       | 452            | 2,12  | MR 3I 180 - 42 × 350 160 L                 | 4 46   |
|             | 32,3                       | 426            | 1,06  | MR 3I 140 - 42 × 350 160 L                 | 4 43,4 |
|             | 33                         | 417            | 2,24  | MR 3I 180 - 42 × 350 160 L                 | 4 42,5 |
|             | 35                         | 393            | 1,8   | MR 3I 160 - 42 × 350 160 L                 | 4 40   |
|             | 35,6                       | 386            | 1,25  | MR 3I 140 - 42 × 350 160 L                 | 4 39,3 |
|             | 35,7                       | 385            | 2,36  | MR 3I 180 - 42 × 350 160 L                 | 4 39,2 |
|             | 36,3                       | 379            | 0,9   | MR 3I 126 - 42 × 350 160 L                 | 4 38,5 |
|             | 39,9                       | 345            | 1,4   | MR 3I 140 - 42 × 350 160 L                 | 4 35,1 |
|             | 40,1                       | 343            | 2,8   | MR 3I 180 - 42 × 350 160 L                 | 4 34,9 |
|             | 40,2                       | 342            | 1     | MR 3I 126 - 42 × 350 160 L                 | 4 34,8 |
|             | 40,3                       | 341            | 2     | MR 3I 160 - 42 × 350 160 L                 | 4 34,7 |
|             | 43,8                       | 314            | 1,5   | MR 3I 140 - 42 × 350 160 L                 | 4 32   |
|             | 44,2                       | 311            | 0,85  | MR 3I 125 - 42 × 350 160 L                 | 4 31,7 |
|             | 44,2                       | 311            | 1,12  | MR 3I 126 - 42 × 350 160 L                 | 4 31,7 |
|             | 46,1                       | 298            | 2,24  | MR 3I 160 - 42 × 350 160 L                 | 4 30,4 |
|             | 46,3                       | 297            | 3,35  | MR 3I 180 - 42 × 350 160 L                 | 4 30,2 |
|             | 47,5                       | 296            | 1,9   | MR 2I 160 - 48 × 350 180 L                 | 6 19   |
|             | 47,6                       | 289            | 1,5   | MR 3I 140 - 42 × 350 160 L                 | 4 29,4 |
|             | 48,1                       | 286            | 0,85  | MR 3I 125 - 42 × 350 160 L                 | 4 29,1 |
|             | 48,1                       | 286            | 1,06  | MR 3I 126 - 42 × 350 160 L                 | 4 29,1 |
|             | 49                         | 281            | 1,25  | MR 3I 126 - 48 × 350 180 L                 | 6 18,4 |
|             | 51,9                       | 270            | 2,24  | MR 2I 160 - 48 × 350 180 L                 | 6 17,3 |
|             | 52,6                       | 262            | 1,8   | MR 3I 140 - 42 × 350 160 L                 | 4 26,6 |
|             | 53,2                       | 258            | 2,65  | MR 3I 160 - 42 × 350 160 L                 | 4 26,3 |
|             | 53,6                       | 257            | 1     | MR 3I 125 - 42 × 350 160 L                 | 4 26,1 |
|             | 53,6                       | 257            | 1,25  | MR 3I 126 - 42 × 350 160 L                 | 4 26,1 |
|             | 58,8                       | 234            | 2     | MR 3I 140 - 42 × 350 160 L                 | 4 23,8 |
|             | 59,3                       | 232            | 1,06  | MR 3I 125 - 42 × 350 160 L                 | 4 23,6 |
|             | 59,3                       | 232            | 1,5   | MR 3I 126 - 42 × 350 160 L                 | 4 23,6 |
|             | 59,3                       | 232            | 3     | MR 3I 160 - 42 × 350 160 L                 | 4 23,6 |
|             | 64,7                       | 217            | 3,15  | MR 2I 160 - 48 × 350 180 L                 | 6 13,9 |
|             | 65,2                       | 211            | 1,18  | MR 3I 125 - 42 × 350 160 L                 | 4 21,5 |
|             | 65,2                       | 211            | 1,6   | MR 3I 126 - 42 × 350 160 L                 | 4 21,5 |
|             | 68,6                       | 201            | 2,36  | MR 3I 140 - 42 × 350 160 L                 | 4 20,4 |
|             | 69,1                       | 203            | 1     | MR 2I 125 - 42 × 350 160 L                 | 4 20,3 |
|             | 70,4                       | 199            | 1,12  | MR 2I 125 - 48 × 350 180 L                 | 6 12,8 |
|             | 70,4                       | 199            | 1,4   | MR 2I 126 - 48 × 350 180 L                 | 6 12,8 |
|             | 70,4                       | 199            | 2     | MR 2I 140 - 48 × 350 180 L                 | 6 12,8 |
|             | 73,9                       | 190            | 3     | MR 2I 160 - 42 × 350 160 L                 | 4 19   |

Motor (cat. TX) with efficiency value not according to IE3 class (IEC 60034-30); the nominal power and nameplate data refer to intermittent duty S3 70%.

1) Powers valid for continuous duty S1; **increase** possible for S2 ... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.  
2) For complete designation when ordering, see ch. 3.



| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$ |
|-------------|----------------------------|----------------|-------|--------------------------------------------|-----|
| 1)          |                            |                |       | 2)                                         |     |
| 15          | 75,9                       | 181            | 2,36  | MR 3I 140 - 42 x 350 160 L                 | 4   |
|             | 76,2                       | 180            | 1,4   | MR 3I 125 - 42 x 350 160 L                 | 4   |
|             | 76,2                       | 180            | 1,9   | MR 3I 126 - 42 x 350 160 L                 | 4   |
|             | 78,3                       | 179            | 2,36  | MR 2I 140 - 48 x 350 180 L                 | 6   |
|             | 79,1                       | 178            | 1,32  | MR 2I 125 - 48 x 350 180 L                 | 6   |
|             | 79,1                       | 178            | 1,7   | MR 2I 126 - 48 x 350 180 L                 | 6   |
|             | 80,8                       | 174            | 3,35  | MR 2I 160 - 42 x 350 160 L                 | 4   |
|             | 84,7                       | 162            | 1,6   | MR 3I 125 - 42 x 350 160 L                 | 4   |
|             | 84,7                       | 162            | 2,12  | MR 3I 126 - 42 x 350 160 L                 | 4   |
|             | 88                         | 159            | 2     | MR 2I 126 - 48 x 350 180 L                 | 6   |
|             | 88,2                       | 159            | 1,4   | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 88,2                       | 159            | 1,7   | MR 2I 126 - 42 x 350 160 L                 | 4   |
|             | 88,2                       | 159            | 2,5   | MR 2I 140 - 42 x 350 160 L                 | 4   |
|             | 98                         | 143            | 3     | MR 2I 140 - 42 x 350 160 L                 | 4   |
|             | 99                         | 142            | 1,7   | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 99                         | 142            | 2,12  | MR 2I 126 - 42 x 350 160 L                 | 4   |
|             | 110                        | 127            | 1,9   | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 110                        | 127            | 2,5   | MR 2I 126 - 42 x 350 160 L                 | 4   |
|             | 114                        | 123            | 0,9   | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 114                        | 123            | 1,12  | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 123                        | 114            | 2     | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 123                        | 114            | 2,5   | MR 2I 126 - 42 x 350 160 L                 | 4   |
|             | 126                        | 111            | 1,06  | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 126                        | 111            | 1,32  | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 137                        | 103            | 2,36  | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 137                        | 103            | 3     | MR 2I 126 - 42 x 350 160 L                 | 4   |
|             | 140                        | 101            | 1,18  | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 140                        | 101            | 1,5   | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 152                        | 93             | 2,5   | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 162                        | 87             | 1,32  | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 162                        | 87             | 1,6   | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 167                        | 84             | 2,8   | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 178                        | 79             | 1,5   | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 178                        | 79             | 1,9   | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 195                        | 72             | 3,35  | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 196                        | 72             | 1,6   | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 196                        | 72             | 2,24  | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 214                        | 66             | 1,8   | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 214                        | 66             | 2,36  | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 217                        | 65             | 3,75  | MR 2I 125 - 42 x 350 160 L                 | 4   |
|             | 248                        | 57             | 2,12  | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 248                        | 57             | 2,65  | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 274                        | 51             | 2,24  | MR 2I 100 - 42 x 350 160 L                 | 4   |
|             | 274                        | 51             | 2,65  | MR 2I 101 - 42 x 350 160 L                 | 4   |
|             | 342                        | 41,1           | 2,36  | MR 2I 100 - 42 x 350 160 L                 | 4   |
| 18,5        | 20,7                       | 821            | 1,12  | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 20,8                       | 817            | 0,85  | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 23,5                       | 722            | 1,25  | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 24,3                       | 697            | 0,9   | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 24,9                       | 681            | 1,06  | MR 3I 160 - 55 x 400 200 LR                | 6   |
|             | 26,4                       | 643            | 1,5   | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 26,5                       | 640            | 1,06  | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 28,7                       | 590            | 1,18  | MR 3I 160 - 55 x 400 200 LR                | 6   |
|             | 30,3                       | 560            | 1,25  | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 30,4                       | 557            | 1,7   | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 32,3                       | 525            | 0,85  | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 33                         | 514            | 1,9   | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 35                         | 485            | 1,4   | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 35,6                       | 476            | 1     | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 35,7                       | 475            | 1,9   | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 39,9                       | 425            | 1,12  | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 40,1                       | 423            | 2,24  | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 40,2                       | 422            | 0,8   | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 40,3                       | 420            | 1,6   | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 43,8                       | 388            | 1,18  | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 44,2                       | 384            | 0,9   | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 46,1                       | 368            | 1,9   | MR 3I 160 - 48 x 350 180 M                 | 4   |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$ |
|-------------|----------------------------|----------------|-------|--------------------------------------------|-----|
| 1)          |                            |                |       | 2)                                         |     |
| 18,5        | 46,3                       | 366            | 2,65  | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 47,6                       | 356            | 1,25  | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 48,1                       | 353            | 0,85  | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 51,3                       | 331            | 3     | MR 3I 180 - 48 x 350 180 M                 | 4   |
|             | 52,6                       | 323            | 1,4   | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 53,2                       | 319            | 2,12  | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 53,6                       | 317            | 0,8   | MR 3I 125 - 48 x 350 180 M                 | 4   |
|             | 53,6                       | 317            | 1,06  | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 58,8                       | 288            | 1,7   | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 59,3                       | 286            | 0,9   | MR 3I 125 - 48 x 350 180 M                 | 4   |
|             | 59,3                       | 286            | 1,18  | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 59,3                       | 286            | 2,36  | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 65,2                       | 260            | 0,95  | MR 3I 125 - 48 x 350 180 M                 | 4   |
|             | 65,2                       | 260            | 1,32  | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 68,2                       | 249            | 2,8   | MR 3I 160 - 48 x 350 180 M                 | 4   |
|             | 68,6                       | 247            | 1,9   | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 73,9                       | 234            | 2,36  | MR 2I 160 - 48 x 350 180 M                 | 4   |
|             | 75,9                       | 223            | 2     | MR 3I 140 - 48 x 350 180 M                 | 4   |
|             | 76,2                       | 223            | 1,12  | MR 3I 125 - 48 x 350 180 M                 | 4   |
|             | 76,2                       | 223            | 1,5   | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 80,8                       | 214            | 2,8   | MR 2I 160 - 48 x 350 180 M                 | 4   |
|             | 84,7                       | 200            | 1,25  | MR 3I 125 - 48 x 350 180 M                 | 4   |
|             | 84,7                       | 200            | 1,7   | MR 3I 126 - 48 x 350 180 M                 | 4   |
|             | 85,8                       | 202            | 1     | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 88                         | 197            | 3,15  | MR 2I 160 - 48 x 350 180 M                 | 4   |
|             | 100                        | 173            | 2,36  | MR 2I 140 - 55 x 400 200 LR                | 6   |
|             | 101                        | 171            | 1,4   | MR 2I 125 - 55 x 400 200 LR                | 6   |
|             | 101                        | 171            | 1,7   | MR 2I 126 - 55 x 400 200 LR                | 6   |
|             | 101                        | 172            | 3,75  | MR 2I 160 - 48 x 350 180 M                 | 4   |
|             | 110                        | 158            | 1,4   | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 110                        | 158            | 1,7   | MR 2I 126 - 48 x 350 180 M                 | 4   |
|             | 110                        | 158            | 2,5   | MR 2I 140 - 48 x 350 180 M                 | 4   |
|             | 122                        | 142            | 3     | MR 2I 140 - 48 x 350 180 M                 | 4   |
|             | 123                        | 141            | 1,6   | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 123                        | 141            | 2,12  | MR 2I 126 - 48 x 350 180 M                 | 4   |
|             | 137                        | 126            | 1,9   | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 137                        | 126            | 2,5   | MR 2I 126 - 48 x 350 180 M                 | 4   |
|             | 145                        | 119            | 0,9   | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 145                        | 119            | 1,12  | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 152                        | 114            | 2,12  | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 152                        | 114            | 2,8   | MR 2I 126 - 48 x 350 180 M                 | 4   |
|             | 162                        | 107            | 1,06  | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 162                        | 107            | 1,32  | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 167                        | 104            | 2,24  | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 167                        | 104            | 3     | MR 2I 126 - 48 x 350 180 M                 | 4   |
|             | 178                        | 97             | 1,18  | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 178                        | 97             | 1,6   | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 195                        | 89             | 2,65  | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 196                        | 88             | 1,32  | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 196                        | 88             | 1,8   | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 214                        | 81             | 1,4   | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 214                        | 81             | 2     | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 217                        | 80             | 3     | MR 2I 125 - 48 x 350 180 M                 | 4   |
|             | 248                        | 70             | 1,7   | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 248                        | 70             | 2,12  | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 274                        | 63             | 1,9   | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 274                        | 63             | 2,12  | MR 2I 101 - 48 x 350 180 M                 | 4   |
|             | 342                        | 51             | 1,9   | MR 2I 100 - 48 x 350 180 M                 | 4   |
|             | 342                        | 51             | 2,12  | MR 2I 101 - 48 x 350 180 M                 | 4   |
| 22          | 19,3                       | 1046           | 0,9   | MR 3I 180 - 55 x 400 200 L                 | 6   |
|             | 20,7                       | 976            | 0,95  | MR 3I 180 - 48 x 350 180 L                 | 4   |
|             | 21,7                       | 931            | 1,06  | MR 3I 180 - 55 x 400 200 L                 | 6   |
|             | 23,5                       | 859            | 1,06  | MR 3I 180 - 48 x 350 180 L                 | 4   |
|             | 24,3                       | 828            | 0,8   | MR 3I 160 - 48 x 350 180 L                 | 4   |
|             | 24,9                       | 810            | 0,9   | MR 3I 160 - 55 x 400 200 L                 | 6   |
|             | 26,4                       | 765            | 1,25  | MR 3I 180 - 48 x 350 180 L                 | 4   |
|             | 26,5                       | 761            | 0,9   | MR 3I 160 - 48 x 350 180 L                 | 4   |

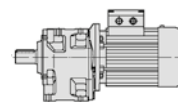
1) Powers valid for continuous duty S1; **increase** possible for S2... S10 (ch. 2b) in which case  $P_2$  and  $M_2$  increase and  $f_s$  decreases proportionately.  
2) For complete designation when ordering, see ch. 3.

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$                | Riduttore - Motore<br>Gear reducer - Motor |       |      |      | $i$ |
|-------------|----------------------------|----------------|----------------------|--------------------------------------------|-------|------|------|-----|
| 1)          |                            |                |                      |                                            |       |      |      |     |
| 22          | 27,1                       | 745            | 1,32                 | MR 3I 180 - 55 × 400                       | 200 L | 6    | 33,2 |     |
|             | 28,7                       | 702            | 1                    | MR 3I 160 - 55 × 400                       | 200 L | 6    | 31,3 |     |
|             | 30,3                       | 666            | 1,06                 | MR 3I 160 - 48 × 350                       | 180 L | 4    | 46,2 |     |
|             | 30,4                       | 663            | 1,4                  | MR 3I 180 - 48 × 350                       | 180 L | 4    | 46   |     |
|             | 33                         | 612            | 1,6                  | MR 3I 180 - 48 × 350                       | 180 L | 4    | 42,5 |     |
|             | 35                         | 577            | 1,18                 | MR 3I 160 - 48 × 350                       | 180 L | 4    | 40   |     |
|             | 35,6                       | 566            | 0,85                 | MR 3I 140 - 48 × 350                       | 180 L | 4    | 39,3 |     |
|             | 35,7                       | 565            | 1,6                  | MR 3I 180 - 48 × 350                       | 180 L | 4    | 39,9 |     |
|             | 39,9                       | 506            | 0,95                 | MR 3I 140 - 48 × 350                       | 180 L | 4    | 35,1 |     |
|             | 40,1                       | 502            | 1,9                  | MR 3I 180 - 48 × 350                       | 180 L | 4    | 34,9 |     |
|             | 40,3                       | 500            | 1,32                 | MR 3I 160 - 48 × 350                       | 180 L | 4    | 34,7 |     |
|             | 43,8                       | 461            | 1                    | MR 3I 140 - 48 × 350                       | 180 L | 4    | 32   |     |
|             | 46,1                       | 437            | 1,6                  | MR 3I 160 - 48 × 350                       | 180 L | 4    | 30,4 |     |
|             | 46,3                       | 435            | 2,24                 | MR 3I 180 - 48 × 350                       | 180 L | 4    | 30,2 |     |
|             | 47,6                       | 424            | 1,06                 | MR 3I 140 - 48 × 350                       | 180 L | 4    | 29,4 |     |
|             | 51,3                       | 393            | 2,5                  | MR 3I 180 - 48 × 350                       | 180 L | 4    | 27,3 |     |
|             | 52,6                       | 384            | 1,18                 | MR 3I 140 - 48 × 350                       | 180 L | 4    | 26,6 |     |
|             | 53,2                       | 379            | 1,8                  | MR 3I 160 - 48 × 350                       | 180 L | 4    | 26,3 |     |
|             | 53,6                       | 376            | 0,85                 | MR 3I 126 - 48 × 350                       | 180 L | 4    | 26,1 |     |
|             | 55,9                       | 368            | 2,12                 | MR 2I 180 - 55 × 400                       | 200 L | 6    | 16,1 |     |
|             | 57,6                       | 357            | 1,6                  | MR 2I 160 - 55 × 400                       | 200 L | 6    | 15,6 |     |
|             | 58,8                       | 343            | 1,4                  | MR 3I 140 - 48 × 350                       | 180 L | 4    | 23,8 |     |
|             | 58,8                       | 343            | 2,65                 | MR 3I 180 - 48 × 350                       | 180 L | 4    | 23,8 |     |
|             | 59,3                       | 340            | 1                    | MR 3I 126 - 48 × 350                       | 180 L | 4    | 23,6 |     |
|             | 59,3                       | 340            | 2                    | MR 3I 160 - 48 × 350                       | 180 L | 4    | 23,6 |     |
|             | 60,8                       | 339            | 2,5                  | MR 2I 180 - 55 × 400                       | 200 L | 6    | 14,8 |     |
|             | 63                         | 327            | 1,9                  | MR 2I 160 - 55 × 400                       | 200 L | 6    | 14,3 |     |
|             | 65,2                       | 309            | 0,8                  | MR 3I 125 - 48 × 350                       | 180 L | 4    | 21,5 |     |
|             | 65,2                       | 309            | 1,12                 | MR 3I 126 - 48 × 350                       | 180 L | 4    | 21,5 |     |
|             | 68,2                       | 296            | 2,36                 | MR 3I 160 - 48 × 350                       | 180 L | 4    | 20,5 |     |
|             | 68,6                       | 294            | 1,6                  | MR 3I 140 - 48 × 350                       | 180 L | 4    | 20,4 |     |
|             | 70,4                       | 292            | 0,8                  | MR 2I 125 - 55 × 400                       | 200 L | 6    | 12,8 |     |
|             | 70,4                       | 292            | 0,95                 | MR 2I 126 - 55 × 400                       | 200 L | 6    | 12,8 |     |
|             | 70,4                       | 292            | 1,32                 | MR 2I 140 - 55 × 400                       | 200 L | 6    | 12,8 |     |
|             | 71,7                       | 287            | 2,8                  | MR 2I 180 - 48 × 350                       | 180 L | 4    | 19,5 |     |
|             | 73,9                       | 279            | 2                    | MR 2I 160 - 48 × 350                       | 180 L | 4    | 19   |     |
|             | 75,9                       | 266            | 1,6                  | MR 3I 140 - 48 × 350                       | 180 L | 4    | 18,4 |     |
|             | 76,2                       | 265            | 0,95                 | MR 3I 125 - 48 × 350                       | 180 L | 4    | 18,4 |     |
|             | 76,2                       | 265            | 1,25                 | MR 3I 126 - 48 × 350                       | 180 L | 4    | 18,4 |     |
|             | 77,9                       | 264            | 3,15                 | MR 2I 180 - 48 × 350                       | 180 L | 4    | 18   |     |
|             | 80,8                       | 255            | 2,36                 | MR 2I 160 - 48 × 350                       | 180 L | 4    | 17,3 |     |
|             | 84,7                       | 238            | 1,06                 | MR 3I 125 - 48 × 350                       | 180 L | 4    | 16,5 |     |
|             | 84,7                       | 238            | 1,4                  | MR 3I 126 - 48 × 350                       | 180 L | 4    | 16,5 |     |
|             | 85,8                       | 240            | 0,85                 | MR 2I 125 - 48 × 350                       | 180 L | 4    | 16,3 |     |
|             | 86,4                       | 238            | 1,9                  | MR 2I 140 - 55 × 400                       | 200 L | 6    | 10,4 |     |
|             | 88                         | 234            | 1,06                 | MR 2I 125 - 55 × 400                       | 200 L | 6    | 10,2 |     |
|             | 88                         | 234            | 1,32                 | MR 2I 126 - 55 × 400                       | 200 L | 6    | 10,2 |     |
|             | 88                         | 234            | 2,65                 | MR 2I 160 - 48 × 350                       | 180 L | 4    | 15,9 |     |
|             | 100                        | 206            | 2                    | MR 2I 140 - 55 × 400                       | 200 L | 6    | 9    |     |
|             | 101                        | 204            | 1,12                 | MR 2I 125 - 55 × 400                       | 200 L | 6    | 8,91 |     |
| 101         | 204                        | 1,4            | MR 2I 126 - 55 × 400 | 200 L                                      | 6     | 8,91 |      |     |
| 101         | 205                        | 3,15           | MR 2I 160 - 48 × 350 | 180 L                                      | 4     | 13,9 |      |     |
| 110         | 188                        | 1,18           | MR 2I 125 - 48 × 350 | 180 L                                      | 4     | 12,8 |      |     |
| 110         | 1                          |                |                      |                                            |       |      |      |     |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$                | Riduttore - Motore<br>Gear reducer - Motor |       |      |      | $i$ |
|-------------|----------------------------|----------------|----------------------|--------------------------------------------|-------|------|------|-----|
| 1)          |                            |                |                      | 2)                                         |       |      |      |     |
| 22          | 195                        | 106            | 2,24                 | MR 2I 125 - 48 × 350                       | 180 L | 4    | 7,19 |     |
|             | 195                        | 106            | 3                    | MR 2I 126 - 48 × 350                       | 180 L | 4    | 7,19 |     |
|             | 217                        | 95             | 2,5                  | MR 2I 125 - 48 × 350                       | 180 L | 4    | 6,46 |     |
|             | 274                        | 75             | 2,65                 | MR 2I 125 - 48 × 350                       | 180 L | 4    | 5,11 |     |
| 30          | 30                         | 917            | 1                    | MR 3I 180 - 55 × 400                       | 200 L | 4    | 46,7 |     |
|             | 33,7                       | 816            | 1,18                 | MR 3I 180 - 55 × 400                       | 200 L | 4    | 41,5 |     |
|             | 38,7                       | 710            | 0,95                 | MR 3I 160 - 55 × 400                       | 200 L | 4    | 36,2 |     |
|             | 38,9                       | 707            | 1,32                 | MR 3I 180 - 55 × 400                       | 200 L | 4    | 36   |     |
|             | 42,1                       | 653            | 1,4                  | MR 3I 180 - 55 × 400                       | 200 L | 4    | 33,2 |     |
|             | 44,7                       | 616            | 1,12                 | MR 3I 160 - 55 × 400                       | 200 L | 4    | 31,3 |     |
|             | 45,7                       | 602            | 1,5                  | MR 3I 180 - 55 × 400                       | 200 L | 4    | 30,7 |     |
|             | 51,3                       | 536            | 1,7                  | MR 3I 180 - 55 × 400                       | 200 L | 4    | 27,3 |     |
|             | 51,5                       | 534            | 1,25                 | MR 3I 160 - 55 × 400                       | 200 L | 4    | 27,2 |     |
|             | 52,6                       | 523            | 0,9                  | MR 3I 140 - 48 × 350                       | 200 L | 4    | 26,6 |     |
|             | 58,8                       | 468            | 1                    | MR 3I 140 - 48 × 350                       | 200 L | 4    | 23,8 |     |
|             | 58,9                       | 467            | 1,4                  | MR 3I 160 - 55 × 400                       | 200 L | 4    | 23,8 |     |
|             | 59,2                       | 465            | 2                    | MR 3I 180 - 55 × 400                       | 200 L | 4    | 23,7 |     |
|             | 65,6                       | 420            | 2,24                 | MR 3I 180 - 55 × 400                       | 200 L | 4    | 21,4 |     |
|             | 68                         | 405            | 1,7                  | MR 3I 160 - 55 × 400                       | 200 L | 4    | 20,6 |     |
|             | 68,6                       | 401            | 1,18                 | MR 3I 140 - 48 × 350                       | 200 L | 4    | 20,4 |     |
|             | 75,2                       | 366            | 2,36                 | MR 3I 180 - 55 × 400                       | 200 L | 4    | 18,6 |     |
|             | 75,7                       | 363            | 1,9                  | MR 3I 160 - 55 × 400                       | 200 L | 4    | 18,5 |     |
|             | 75,9                       | 362            | 1,18                 | MR 3I 140 - 48 × 350                       | 200 L | 4    | 18,4 |     |
|             | 87                         | 323            | 2,36                 | MR 2I 180 - 55 × 400                       | 200 L | 4    | 16,1 |     |
|             | 87,2                       | 316            | 2,12                 | MR 3I 160 - 55 × 400                       | 200 L | 4    | 16,1 |     |
|             | 89,6                       | 313            | 1,8                  | MR 2I 160 - 55 × 400                       | 200 L | 4    | 15,6 |     |
|             | 94,5                       | 297            | 2,8                  | MR 2I 180 - 55 × 400                       | 200 L | 4    | 14,8 |     |
|             | 98                         | 286            | 2                    | MR 2I 160 - 55 × 400                       | 200 L | 4    | 14,3 |     |
|             | 106                        | 264            | 3,35                 | MR 2I 180 - 55 × 400                       | 200 L | 4    | 13,2 |     |
|             | 107                        | 263            | 2,36                 | MR 2I 160 - 55 × 400                       | 200 L | 4    | 13,1 |     |
|             | 110                        | 256            | 0,85                 | MR 2I 125 - 55 × 400                       | 200 L | 4    | 12,8 |     |
|             | 110                        | 256            | 1,06                 | MR 2I 126 - 55 × 400                       | 200 L | 4    | 12,8 |     |
|             | 110                        | 256            | 1,5                  | MR 2I 140 - 55 × 400                       | 200 L | 4    | 12,8 |     |
|             | 122                        | 231            | 1,8                  | MR 2I 140 - 55 × 400                       | 200 L | 4    | 11,5 |     |
|             | 122                        | 230            | 2,8                  | MR 2I 160 - 55 × 400                       | 200 L | 4    | 11,5 |     |
|             | 123                        | 228            | 1                    | MR 2I 125 - 55 × 400                       | 200 L | 4    | 11,4 |     |
|             | 123                        | 228            | 1,25                 | MR 2I 126 - 55 × 400                       | 200 L | 4    | 11,4 |     |
|             | 134                        | 209            | 2,12                 | MR 2I 140 - 55 × 400                       | 200 L | 4    | 10,4 |     |
|             | 137                        | 205            | 1,18                 | MR 2I 125 - 55 × 400                       | 200 L | 4    | 10,2 |     |
|             | 137                        | 205            | 1,5                  | MR 2I 126 - 55 × 400                       | 200 L | 4    | 10,2 |     |
|             | 141                        | 199            | 3,15                 | MR 2I 160 - 55 × 400                       | 200 L | 4    | 9,94 |     |
|             | 156                        | 180            | 2,24                 | MR 2I 140 - 55 × 400                       | 200 L | 4    | 9    |     |
|             | 157                        | 179            | 1,25                 | MR 2I 125 - 55 × 400                       | 200 L | 4    | 8,91 |     |
|             | 157                        | 179            | 1,6                  | MR 2I 126 - 55 × 400                       | 200 L | 4    | 8,91 |     |
|             | 172                        | 164            | 2,65                 | MR 2I 140 - 55 × 400                       | 200 L | 4    | 8,15 |     |
|             | 175                        | 160            | 1,5                  | MR 2I 125 - 55 × 400                       | 200 L | 4    | 8    |     |
| 175         | 160                        | 1,9            | MR 2I 126 - 55 × 400 | 200 L                                      | 4     | 8    |      |     |
| 192         | 146                        | 2,65           | MR 2I 140 - 55 × 400 | 200 L                                      | 4     | 7,29 |      |     |
| 194         | 145                        | 1,6            | MR 2I 125 - 55 × 400 | 200 L                                      | 4     | 7,23 |      |     |
| 194         | 145                        | 2,12           | MR 2I 126 - 55 × 400 | 200 L                                      | 4     | 7,23 |      |     |
| 213         | 132                        | 1,8            | MR 2I 125 - 55 × 400 | 200 L                                      | 4     | 6,57 |      |     |
| 213         | 132                        | 2,36           | MR 2I 126 - 55 × 400 | 200 L                                      | 4     | 6,57 |      |     |
| 224         | 125                        | 2,65           | MR 2I 140 - 55 × 400 | 200 L                                      | 4     | 6,25 |      |     |
| 249         | 113                        | 2,12           | MR 2I 125 - 55 × 400 | 200 L                                      | 4     | 5,63 |      |     |
| 249         | 113                        | 2,65           | MR 2I 126 - 55 × 400 | 200 L                                      | 4     | 5,63 |      |     |
| 277         | 101                        | 2,36           | MR 2I 125 - 55 × 400 | 200 L                                      | 4     | 5,06 |      |     |
| 277         | 101                        | 2,65           | MR 2I 126 - 55 × 400 | 200 L                                      | 4     | 5,06 |      |     |
| 350         | 80                         | 2,5            | MR 2I 125 - 55 × 400 | 200 L                                      | 4     | 4    |      |     |
| 37          | 30                         | 1131           | 0,8                  | MR 3I 180 - 60 × 450                       | 225 S | 4    | 46,7 |     |
|             | 33,7                       | 1006           | 0,95                 | MR 3I 180 - 60 × 450                       | 225 S | 4    | 41,5 |     |
|             | 38,7                       | 876            | 0,8                  | MR 3I 160 - 60 × 450                       | 225 S | 4    | 36,2 |     |
|             | 38,9                       | 872            | 1,06                 | MR 3I 180 - 60 × 450                       | 225 S | 4    | 36   |     |
|             | 42,1                       | 805            | 1,18                 | MR 3I 180 - 60 × 450                       | 225 S | 4    | 33,2 |     |
|             | 44,7                       | 759            | 0,9                  | MR 3I 160 - 60 × 450                       | 225 S | 4    | 31,3 |     |
|             | 45,7                       | 743            | 1,18                 | MR 3I 180 - 60 × 450                       | 225 S | 4    | 30,7 |     |
|             |                            |                |                      |                                            |       |      |      |     |

\* In case of ambient temperature  $> 30^{\circ}\text{C}$  check the thermal power (ch. 4).





| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$    |
|-------------|----------------------------|----------------|-------|--------------------------------------------|--------|
| 1)          |                            |                |       | 2)                                         |        |
| <b>37</b>   | <b>51,3</b>                | 661            | 1,4   | MR 3I 180 - 60 × 450 225 S                 | 4 27,3 |
|             | <b>51,5</b>                | 658            | 1     | MR 3I 160 - 60 × 450 225 S                 | 4 27,2 |
|             | <b>58,9</b>                | 576            | 1,18  | MR 3I 160 - 60 × 450 225 S                 | 4 23,8 |
|             | <b>59,2</b>                | 573            | 1,7   | MR 3I 180 - 60 × 450 225 S                 | 4 23,7 |
|             | <b>65,6</b>                | 517            | 1,8   | MR 3I 180 - 60 × 450 225 S                 | 4 21,4 |
|             | <b>68</b>                  | 499            | 1,32  | MR 3I 160 - 60 × 450 225 S                 | 4 20,6 |
|             | <b>75,2</b>                | 451            | 1,9   | MR 3I 180 - 60 × 450 225 S                 | 4 18,6 |
|             | <b>75,7</b>                | 448            | 1,5   | MR 3I 160 - 60 × 450 225 S                 | 4 18,5 |
|             | <b>87,2</b>                | 389            | 1,7   | MR 3I 160 - 60 × 450 225 S                 | 4 16,1 |
|             | <b>106</b>                 | 325            | 2,36  | MR 2I 180 - 60 × 450 225 S                 | 4 13,1 |
|             | <b>110</b>                 | 316            | 1,7   | MR 2I 160 - 60 × 450 225 S                 | 4 12,8 |
|             | <b>116</b>                 | 299            | 2,8   | MR 2I 180 - 60 × 450 225 S                 | 4 12,1 |
|             | <b>120</b>                 | 289            | 2     | MR 2I 160 - 60 × 450 225 S                 | 4 11,7 |
|             | <b>130</b>                 | 266            | 3,15  | MR 2I 180 - 60 × 450 225 S                 | 4 10,8 |
|             | <b>131</b>                 | 265            | 2,36  | MR 2I 160 - 60 × 450 225 S                 | 4 10,7 |
|             | <b>140</b>                 | 247            | 1,5   | MR 2I 140 - 60 × 450 225 S                 | 4 10   |
|             | <b>149</b>                 | 232            | 2,8   | MR 2I 160 - 60 × 450 225 S                 | 4 9,37 |
|             | <b>150</b>                 | 231            | 3,15  | MR 2I 180 - 60 × 450 225 S                 | 4 9,33 |
|             | <b>156</b>                 | 223            | 1,8   | MR 2I 140 - 60 × 450 225 S                 | 4 9    |
|             | <b>172</b>                 | 202            | 2,12  | MR 2I 140 - 60 × 450 225 S                 | 4 8,15 |
|             | <b>172</b>                 | 201            | 3,15  | MR 2I 160 - 60 × 450 225 S                 | 4 8,12 |
|             | <b>192</b>                 | 180            | 2,12  | MR 2I 140 - 60 × 450 225 S                 | 4 7,29 |
|             | <b>224</b>                 | 155            | 2,12  | MR 2I 140 - 60 × 450 225 S                 | 4 6,25 |
|             | <b>248</b>                 | 140            | 2,12  | MR 2I 140 - 60 × 450 225 S                 | 4 5,65 |
| <b>45</b>   | <b>33,7</b>                | 1224           | 0,8   | MR 3I 180 - 60 × 450 225 M                 | 4 41,5 |
|             | <b>38,9</b>                | 1061           | 0,9   | MR 3I 180 - 60 × 450 225 M                 | 4 36   |
|             | <b>42,1</b>                | 979            | 0,95  | MR 3I 180 - 60 × 450 225 M                 | 4 33,2 |
|             | <b>45,7</b>                | 904            | 0,95  | MR 3I 180 - 60 × 450 225 M                 | 4 30,7 |
|             | <b>51,3</b>                | 804            | 1,18  | MR 3I 180 - 60 × 450 225 M                 | 4 27,3 |
|             | <b>51,5</b>                | 800            | 0,8   | MR 3I 160 - 60 × 450 225 M                 | 4 27,2 |
|             | <b>58,9</b>                | 700            | 0,95  | MR 3I 160 - 60 × 450 225 M                 | 4 23,8 |
|             | <b>59,2</b>                | 697            | 1,4   | MR 3I 180 - 60 × 450 225 M                 | 4 23,7 |
|             | <b>65,6</b>                | 629            | 1,5   | MR 3I 180 - 60 × 450 225 M                 | 4 21,4 |
|             | <b>68</b>                  | 607            | 1,12  | MR 3I 160 - 60 × 450 225 M                 | 4 20,6 |
|             | <b>75,2</b>                | 549            | 1,6   | MR 3I 180 - 60 × 450 225 M                 | 4 18,6 |
|             | <b>75,7</b>                | 545            | 1,25  | MR 3I 160 - 60 × 450 225 M                 | 4 18,5 |
|             | <b>87,2</b>                | 473            | 1,4   | MR 3I 160 - 60 × 450 225 M                 | 4 16,1 |
|             | <b>106</b>                 | 396            | 2     | MR 2I 180 - 60 × 450 225 M                 | 4 13,1 |
|             | <b>110</b>                 | 384            | 1,4   | MR 2I 160 - 60 × 450 225 M                 | 4 12,8 |
|             | <b>116</b>                 | 364            | 2,24  | MR 2I 180 - 60 × 450 225 M                 | 4 12,1 |
|             | <b>120</b>                 | 351            | 1,7   | MR 2I 160 - 60 × 450 225 M                 | 4 11,7 |
|             | <b>130</b>                 | 324            | 2,65  | MR 2I 180 - 60 × 450 225 M                 | 4 10,8 |

| $P_1$<br>kW | $n_2$<br>min <sup>-1</sup> | $M_2$<br>daN m | $f_s$ | Riduttore - Motore<br>Gear reducer - Motor | $i$      |
|-------------|----------------------------|----------------|-------|--------------------------------------------|----------|
| 1)          |                            |                |       | 2)                                         |          |
| <b>45</b>   | <b>131</b>                 | 322            | 1,9   | MR 2I 160 - 60 × 450 225 M                 | 4 10,7   |
|             | <b>140</b>                 | 301            | 1,25  | MR 2I 140 - 60 × 450 225 M                 | 4 10     |
|             | <b>149</b>                 | 282            | 2,24  | MR 2I 160 - 60 × 450 225 M                 | 4 9,37   |
|             | <b>150</b>                 | 281            | 2,65  | MR 2I 180 - 60 × 450 225 M                 | 4 9,33   |
|             | <b>156</b>                 | 271            | 1,5   | MR 2I 140 - 60 × 450 225 M                 | 4 9      |
|             | <b>172</b>                 | 245            | 1,7   | MR 2I 140 - 60 × 450 225 M                 | 4 8,15   |
|             | <b>172</b>                 | 244            | 2,65  | MR 2I 160 - 60 × 450 225 M                 | 4 8,12   |
|             | <b>192</b>                 | 219            | 1,7   | MR 2I 140 - 60 × 450 225 M                 | 4 7,29   |
|             | <b>192</b>                 | 219            | 2,65  | MR 2I 160 - 60 × 450 225 M                 | 4 7,29   |
|             | <b>221</b>                 | 191            | 2,65  | MR 2I 160 - 60 × 450 225 M                 | 4 6,34   |
|             | <b>224</b>                 | 188            | 1,7   | MR 2I 140 - 60 × 450 225 M                 | 4 6,25   |
|             | <b>248</b>                 | 170            | 1,7   | MR 2I 140 - 60 × 450 225 M                 | 4 5,65   |
| <b>55</b>   | <b>42,1</b>                | 1197           | 0,8   | MR 3I 180 - 60 × 450 250 M                 | * 4 33,2 |
|             | <b>45,7</b>                | 1105           | 0,8   | MR 3I 180 - 60 × 450 250 M                 | * 4 30,7 |
|             | <b>51,3</b>                | 983            | 0,95  | MR 3I 180 - 60 × 450 250 M                 | * 4 27,3 |
|             | <b>59,2</b>                | 852            | 1,12  | MR 3I 180 - 60 × 450 250 M                 | * 4 23,7 |
|             | <b>65,6</b>                | 769            | 1,25  | MR 3I 180 - 60 × 450 250 M                 | * 4 21,4 |
|             | <b>75,2</b>                | 671            | 1,32  | MR 3I 180 - 60 × 450 250 M                 | * 4 18,6 |
|             | <b>106</b>                 | 483            | 1,6   | MR 2I 180 - 65 × 550 250 M                 | 4 13,1   |
|             | <b>110</b>                 | 469            | 1,18  | MR 2I 160 - 65 × 550 250 M                 | 4 12,8   |
|             | <b>116</b>                 | 445            | 1,9   | MR 2I 180 - 65 × 550 250 M                 | 4 12,1   |
|             | <b>120</b>                 | 429            | 1,32  | MR 2I 160 - 65 × 550 250 M                 | 4 11,7   |
|             | <b>130</b>                 | 396            | 2,12  | MR 2I 180 - 65 × 550 250 M                 | 4 10,8   |
|             | <b>131</b>                 | 394            | 1,6   | MR 2I 160 - 65 × 550 250 M                 | 4 10,7   |
|             | <b>149</b>                 | 345            | 1,9   | MR 2I 160 - 65 × 550 250 M                 | 4 9,37   |
|             | <b>150</b>                 | 343            | 2,12  | MR 2I 180 - 65 × 550 250 M                 | 4 9,33   |
|             | <b>166</b>                 | 310            | 2,12  | MR 2I 180 - 65 × 550 250 M                 | 4 8,43   |
|             | <b>172</b>                 | 299            | 2,12  | MR 2I 160 - 65 × 550 250 M                 | 4 8,12   |
|             | <b>191</b>                 | 270            | 2,12  | MR 2I 180 - 65 × 550 250 M                 | 4 7,35   |
|             | <b>192</b>                 | 268            | 2,12  | MR 2I 160 - 65 × 550 250 M                 | 4 7,29   |
|             | <b>221</b>                 | 233            | 2,12  | MR 2I 160 - 65 × 550 250 M                 | 4 6,34   |
| <b>75</b>   | <b>136</b>                 | 516            | 1,5   | MR 2I 180 - 75 × 550 280 S                 | 4 10,3   |
|             | <b>148</b>                 | 475            | 1,7   | MR 2I 180 - 75 × 550 280 S                 | 4 9,48   |
|             | <b>166</b>                 | 423            | 1,7   | MR 2I 180 - 75 × 550 280 S                 | 4 8,44   |
|             | <b>191</b>                 | 367            | 1,7   | MR 2I 180 - 75 × 550 280 S                 | 4 7,31   |
|             | <b>212</b>                 | 331            | 1,7   | MR 2I 180 - 75 × 550 280 S                 | 4 6,6    |
|             | <b>243</b>                 | 289            | 1,7   | MR 2I 180 - 75 × 550 280 S                 | 4 5,76   |

1) Powers valid for continuous duty S1; **increase** possible for S2 ... S10 (ch. 2b) in which case  $M_2$  increases and  $f_s$  decreases proportionately.

2) For complete designation when ordering, see ch. 3.

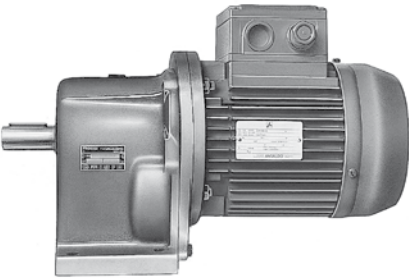
\* Mounting position **B5R** (see table ch. 2b).

\* In case of ambient temperature > 30 °C check the thermal power (ch. 4).

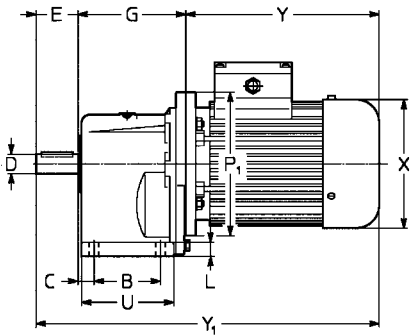
\*\* Check the thermal power.

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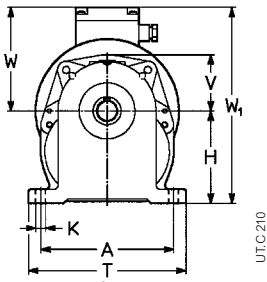
Designs, dimensions, mounting positions and lubricant quantities 3.8



Standard design<sup>1)</sup>  
Mounting position B3, B6, B7, B8, V5, V6

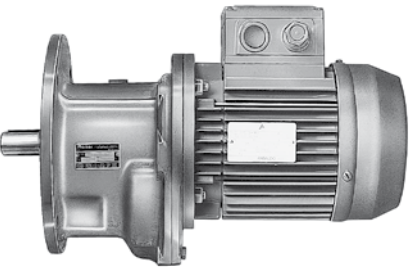


MR 2I, 3I 32 ... 41

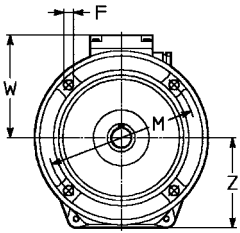
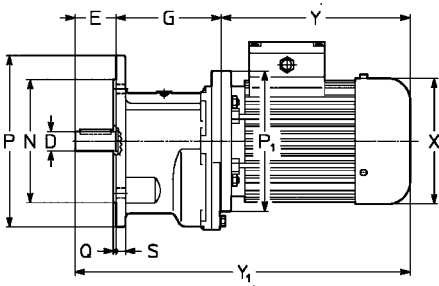


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PC1A



Standard design<sup>1)</sup>  
Mounting position B5, V1, V3



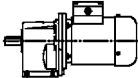
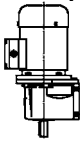
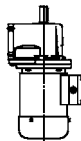
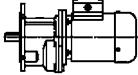
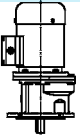
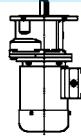
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FC1A

| Size |                              | A   | B  | C  | D<br>Ø | E  | F<br>Ø | G                     | H<br>h11 | K<br>Ø | L  | M<br>Ø | N<br>Ø<br>h6 | P<br>Ø | Q   | S  | T   | U  | V        | P.<br>Ø           | X<br>Ø<br>≈       | Y<br>≈            | Y,<br>≈           | W<br>≈            | W.<br>≈           | Mass             |                   |             |                |                |
|------|------------------------------|-----|----|----|--------|----|--------|-----------------------|----------|--------|----|--------|--------------|--------|-----|----|-----|----|----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------|----------------|----------------|
| red. | motor                        |     |    |    |        |    |        |                       |          |        |    |        |              |        |     |    |     |    |          |                   |                   |                   |                   |                   |                   |                  | kg                |             |                |                |
|      | B5                           |     |    |    |        |    |        |                       |          |        |    |        |              |        |     |    |     |    | Z        |                   |                   |                   | 2)                | 2)                |                   | 11)              | HB                | HBZ         |                |                |
| 32   | 63<br>71 <sup>4)</sup>       | 115 | 53 | 20 | 16     | 30 | 9,5    | 98-88 <sup>5)</sup>   | 75       | 9,5    | 10 | 115    | 95           | 140    | 3   | 10 | 139 | 77 | 48<br>73 | 140<br>140        | 123<br>138        | 189<br>235        | 244<br>297        | 317<br>363        | 372<br>425        | 95<br>112        | 170<br>187        | 4<br>4      | 9<br>12        | 11<br>15       |
| 40   | 63<br>71<br>80 <sup>3)</sup> | 132 | 63 | 19 | 19     | 40 | 9,5    | 113                   | 90       | 9,5    | 12 | 130    | 110          | 160    | 3,5 | 10 | 156 | 92 | 56<br>87 | 140<br>160<br>160 | 123<br>138<br>156 | 189<br>216<br>254 | 244<br>278<br>323 | 342<br>369<br>407 | 397<br>431<br>476 | 95<br>112<br>121 | 185<br>202<br>211 | 7<br>7<br>7 | 12<br>15<br>19 | 14<br>18<br>23 |
| 41   | 63<br>71<br>80 <sup>3)</sup> | 132 | 63 | 34 | 24     | 36 | 9,5    | 128-113 <sup>5)</sup> | 90       | 9,5    | 12 | 130    | 110          | 160    | 3,5 | 10 | 156 | 92 | 56<br>87 | 140<br>160<br>160 | 123<br>138<br>156 | 189<br>216<br>254 | 244<br>278<br>323 | 353<br>380<br>418 | 408<br>442<br>487 | 95<br>112<br>121 | 185<br>202<br>211 | 7<br>7<br>7 | 12<br>15<br>19 | 14<br>18<br>23 |

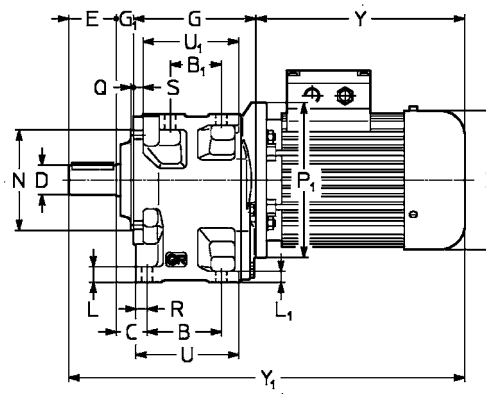
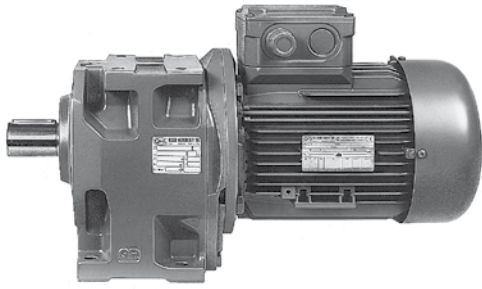
1) See ch. 3 for motor design.  
2) Values valid for brake motor.  
3) Mounting position **B5A** (see ch. 2b).  
4) Mounting position **B5R** (see ch. 2b).  
5) Dimensions of shaft end shoulder and flange surface respectively.  
6) For size 51 **Y** is -8 mm.  
7) For motor shaft **H** is -15 mm, **H<sub>0</sub>** +15 mm.  
8) For motor shaft **H** is -9 mm, **H<sub>0</sub>** +9 mm.  
9) For motor shaft **H** is -29 mm, **H<sub>0</sub>** +29 mm.  
10) Two of the motor flange holes are slotted (see ch. 2b).  
11) Values valid for gearmotor without motor.  
12) **Brake motor** cat. TX **not possible**.

Mounting positions and grease quantities [kg]

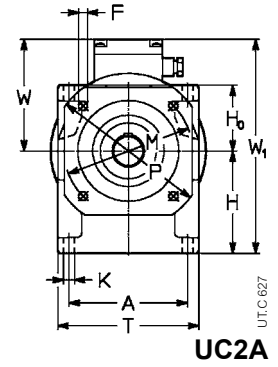
| Design | Size                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       | B3, B6<br>B7, B8 | V5, V6       |              |
|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------|--------------|--------------|
|        | B3                                                                                  | B6                                                                                  | B7                                                                                  | B8                                                                                  | V5                                                                                  | V6                                                                                    |                  |              |              |
| PC1A   |  |  |  |  |  |  | 32<br>40,41      | 0,14<br>0,26 | 0,25<br>0,47 |
| FC1A   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       | B5               | V1, V3       |              |
|        |  | UTC 217                                                                             |                                                                                     |                                                                                     |  |  | 32<br>40,41      | 0,1<br>0,19  | 0,18<br>0,35 |

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# Designs, dimensions, mounting positions and lubricant quantities 3.8



MR 2I, 3I 50 ... 180



## Standard design<sup>1)</sup>

Mounting position B3, B6, B7, B8, V5, V6

| Size                  |                       | A   | B   | B <sub>1</sub> | C    | D<br>Ø | E    | F<br>Ø | G   | G <sub>1</sub> | H<br>h <sub>11</sub> | H <sub>0</sub><br>h <sub>11</sub> | K<br>Ø | L    | L <sub>1</sub> | M<br>Ø | N<br>Ø<br>h <sub>6</sub> | P<br>Ø | Q<br>0+2 | R  | S   | T   | U   | U <sub>1</sub> | P <sub>1</sub><br>Ø | X<br>Ø | Y<br>≈ | Y <sub>1</sub><br>≈ | W<br>≈ | W <sub>1</sub><br>≈ | Mass |     |     |     |     |
|-----------------------|-----------------------|-----|-----|----------------|------|--------|------|--------|-----|----------------|----------------------|-----------------------------------|--------|------|----------------|--------|--------------------------|--------|----------|----|-----|-----|-----|----------------|---------------------|--------|--------|---------------------|--------|---------------------|------|-----|-----|-----|-----|
| red.                  | motor                 |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     |                |                     |        | HB     | HBZ                 | HB     | HBZ                 | TX   |     | kg  |     |     |
|                       |                       |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     |                |                     |        |        |                     |        |                     |      |     | 11) | HB  | HBZ |
| 50<br>51              | 63 <sup>(9)</sup>     | 124 | 76  | 52             | 30,5 | 24     | 50   | 9,5    | 128 | 16             | 106                  | 71                                | 11,5   | 17   | 12             | 130    | 110                      | 160    | 13,5     | 10 | 148 | 110 | 100 | 140            | 123                 | 189    | 244    | 383                 | 438    | 95                  | 201  | 12  | 17  | 19  |     |
|                       | 71                    |     |     |                |      | (50)   | (50) |        |     |                |                      |                                   |        |      |                |        |                          | 3,5    |          |    |     |     |     | 160            | 138                 | 216    | 278    | 410                 | 472    | 112                 | 218  | 12  | 20  | 23  |     |
|                       | 80                    |     |     |                |      | 28     | 42   |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 200            | 156                 | 233    | 302    | 427                 | 496    | 121                 | 227  | 12  | 24  | 28  |     |
|                       | 90                    |     |     |                |      | (51)   | (51) |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 200            | 176                 | 287    | 366    | 481                 | 560    | 141                 | 247  | 12  | 31  | 37  |     |
|                       | 100 <sup>(9/12)</sup> |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 200            | 194                 | 337    | —      | 531                 | —      | 151                 | 257  | 12  | 38  | —   |     |
| 112 <sup>(9/12)</sup> |                       |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 200            | 218                 | 362    | —      | 548                 | —      | 163                 | 269  | 12  | 40  | —   |     |
| 63<br>64              | 71                    | 153 | 96  | 66             | 36,5 | 32     | 58   | 11,5   | 158 | 19             | 132                  | 85                                | 14     | 20   | 14             | 165    | 130                      | 200    | 16       | 12 | 182 | 136 | 124 | 160            | 138                 | 216    | 278    | 451                 | 513    | 112                 | 244  | 20  | 28  | 31  |     |
|                       | 80                    |     |     |                |      | (63)   |      |        |     |                |                      |                                   |        |      |                |        |                          | 3,5    |          |    |     |     |     | 200            | 156                 | 233    | 302    | 468                 | 537    | 121                 | 253  | 20  | 32  | 36  |     |
|                       | 90                    |     |     |                |      | 38     | (64) |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 200            | 176                 | 287    | 366    | 522                 | 601    | 141                 | 273  | 20  | 39  | 45  |     |
|                       | 100                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 250            | 194                 | 310    | 405    | 545                 | 640    | 151                 | 283  | 20  | 46  | 52  |     |
|                       | 112                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 250            | 218                 | 336    | 435    | 571                 | 670    | 163                 | 295  | 20  | 55  | 64  |     |
| 132 <sup>(9)</sup>    |                       |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 250            | 257                 | 480    | —      | 715                 | —      | 194                 | 326  | 20  | 78  | —   |     |
| 80<br>81              | 80                    | 192 | 123 | 87             | 43   | 38     | 80   | 14     | 197 | 22             | 160                  | 106                               | 16     | 24   | 17             | 215    | 180                      | 250    | 19       | 14 | 226 | 171 | 157 | 200            | 156                 | 233    | 302    | 532                 | 601    | 121                 | 281  | 35  | 47  | 51  |     |
|                       | 90                    |     |     |                |      | (80)   |      |        |     |                |                      |                                   |        |      |                |        |                          | 4      |          |    |     |     |     | 200            | 176                 | 287    | 366    | 586                 | 665    | 141                 | 301  | 35  | 54  | 60  |     |
|                       | 100                   |     |     |                |      | 48     |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 250            | 194                 | 310    | 405    | 609                 | 704    | 151                 | 311  | 35  | 61  | 67  |     |
|                       | 112                   |     |     |                |      | (81)   |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 250            | 218                 | 336    | 435    | 635                 | 734    | 163                 | 323  | 35  | 70  | 79  |     |
|                       | 132                   |     |     |                |      |        |      |        | 200 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 300            | 257                 | 445    | 553    | 747                 | 855    | 194                 | 354  | 35  | 104 | 116 |     |
| 100<br>101            | 90                    | 240 | 160 | 119            | 51,5 | 48     | 82   | 14     | 242 | 27             | 195                  | 132                               | 18     | 28,5 | 20             | 265    | 230                      | 300    | 22,5     | 16 | 280 | 214 | 198 | 200            | 176                 | 287    | 366    | 638                 | 717    | 141                 | 336  | 62  | 81  | 87  |     |
|                       | 100                   |     |     |                |      | (100)  |      |        |     |                |                      |                                   |        |      |                |        |                          | 4      |          |    |     |     |     | 250            | 194                 | 310    | 405    | 661                 | 756    | 151                 | 346  | 62  | 88  | 94  |     |
|                       | 112                   |     |     |                |      | 55     |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 250            | 218                 | 336    | 435    | 687                 | 786    | 163                 | 358  | 62  | 97  | 106 |     |
|                       | 132                   |     |     |                |      | (101)  |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 300            | 257                 | 445    | 553    | 796                 | 904    | 194                 | 389  | 62  | 131 | 143 |     |
|                       | 160                   |     |     |                |      |        |      |        | 258 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 315                 | 540    | 630    | 907                 | 997    | 240                 | 435  | 62  | 185 | 222 |     |
| 180M                  |                       |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 360                 | 550    | 690    | 917                 | 1057   | 278                 | 473  | 62  | 273 | 321 |     |
| 125<br>126            | 100                   | 297 | 200 | 151            | 59   | 60     | 105  | 18     | 297 | 30             | 236                  | 160                               | 22     | 35   | 25             | 300    | 250                      | 350    | 26,5     | 19 | 345 | 264 | 245 | 250            | 194                 | 310    | 405    | 742                 | 837    | 151                 | 396  | 110 | 136 | 142 |     |
|                       | 112                   |     |     |                |      | (125)  |      |        |     |                |                      |                                   |        |      |                |        |                          | 5      |          |    |     |     |     | 250            | 218                 | 336    | 435    | 768                 | 867    | 163                 | 399  | 110 | 145 | 154 |     |
|                       | 132                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 300            | 257                 | 445    | 553    | 877                 | 985    | 194                 | 430  | 110 | 179 | 191 |     |
|                       | 160                   |     |     |                |      | 70     |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 315                 | 540    | 630    | 972                 | 1062   | 240                 | 476  | 110 | 233 | 270 |     |
|                       | 180                   |     |     |                |      | (126)  |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 360                 | 590    | 725    | 1022                | 1157   | 278                 | 514  | 110 | 350 | 398 |     |
| 200                   |                       |     |     |                |      |        |      |        | 299 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 400            | 400                 | 650    | 760    | 1084                | 1194   | 310                 | 546  | 110 | 345 | 393 |     |
| 140                   | 100                   | 297 | 218 | 169            | 59   | 80     | 130  | 18     | 315 | 30             | 250                  | 160                               | 22     | 35   | 25             | 300    | 250                      | 350    | 26,5     | 19 | 345 | 282 | 263 | 250            | 194                 | 310    | 405    | 785                 | 880    | 151                 | 410  | 123 | 149 | 155 |     |
|                       | 112                   |     |     |                |      |        |      |        |     |                | 7)                   | 7)                                |        |      |                |        |                          | 5      |          |    |     |     |     | 250            | 218                 | 336    | 435    | 811                 | 910    | 163                 | 410  | 123 | 158 | 167 |     |
|                       | 132                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 300            | 257                 | 445    | 553    | 920                 | 1028   | 194                 | 429  | 123 | 192 | 204 |     |
|                       | 160                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 315                 | 540    | 630    | 1015                | 1105   | 240                 | 475  | 123 | 246 | 283 |     |
|                       | 180                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 360                 | 590    | 725    | 1065                | 1200   | 278                 | 513  | 123 | 363 | 411 |     |
| 200                   |                       |     |     |                |      |        |      |        | 317 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 400            | 400                 | 650    | 760    | 1127                | 1237   | 310                 | 545  | 123 | 358 | 406 |     |
| 225                   |                       |     |     |                |      |        |      |        | 339 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 450            | 450                 | 680    | —      | 1179                | —      | 330                 | 565  | 123 | 453 | —   |     |
| 160                   | 132                   | 373 | 250 | 191            | 68,5 | 90     | 130  | 22     | 366 | 34             | 295                  | 200                               | 27     | 42   | 30             | 400    | 350                      | 450    | 31,5     | 22 | 430 | 326 | 304 | 300            | 257                 | 445    | 553    | 975                 | 1083   | 194                 | 495  | 195 | 264 | 276 |     |
|                       | 160                   |     |     |                |      |        |      |        |     |                | 8)                   | 8)                                |        |      |                |        |                          | 5      |          |    |     |     |     | 350            | 315                 | 540    | 630    | 1070                | 1160   | 240                 | 527  | 195 | 318 | 355 |     |
|                       | 180                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 360                 | 590    | 725    | 1120                | 1255   | 278                 | 565  | 195 | 435 | 483 |     |
|                       | 200                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 400            | 400                 | 650    | 760    | 1180                | 1290   | 310                 | 597  | 195 | 430 | 478 |     |
|                       | 225                   |     |     |                |      |        |      |        | 368 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 450            | 450                 | 680    | —      | 1212                | —      | 330                 | 617  | 195 | 525 | —   |     |
| 250                   |                       |     |     |                |      |        |      | 380    |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 550            | 485                 | 736    | —      | 1280                | —      | 375                 | 662  | 195 | 668 | —   |     |
| 180                   | 132                   | 373 | 275 | 216            | 68,5 | 100    | 165  | 22     | 391 | 34             | 315                  | 200                               | 27     | 42   | 30             | 400    | 350                      | 450    | 31,5     | 22 | 430 | 351 | 329 | 300            | 257                 | 445    | 553    | 1035                | 1143   | 194                 | 515  | 218 | 287 | 299 |     |
|                       | 160                   |     |     |                |      |        |      |        |     |                | 9)                   | 9)                                |        |      |                |        |                          | 5      |          |    |     |     |     | 350            | 315                 | 540    | 630    | 1130                | 1220   | 240                 | 526  | 218 | 341 | 378 |     |
|                       | 180                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 350            | 360                 | 590    | 725    | 1180                | 1315   | 278                 | 564  | 218 | 458 | 506 |     |
|                       | 200                   |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 400            | 400                 | 650    | 760    | 1240                | 1350   | 310                 | 596  | 218 | 453 | 501 |     |
|                       | 225                   |     |     |                |      |        |      |        | 393 |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 450            | 450                 | 680    | —      | 1272                | —      | 330                 | 616  | 218 | 548 | —   |     |
| 250                   |                       |     |     |                |      |        |      | 405    |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 550            | 485                 | 736    | —      | 1340                | —      | 375                 | 661  | 218 | 691 | —   |     |
| 280                   |                       |     |     |                |      |        |      |        |     |                |                      |                                   |        |      |                |        |                          |        |          |    |     |     |     | 550            | 550                 | 928    | —      | 1532                | —      | 405                 | 691  | 218 | 900 | —   |     |

See notes on page 62

## Mounting positions and oil quantities [l]

| B3 | B6 | B7 | B8 | V5 | V6 | Size     | B3   | B6, B7 | B8, V6 | V5   |
|----|----|----|----|----|----|----------|------|--------|--------|------|
|    |    |    |    |    |    | 50, 51   | 0,8  | 1,1    | 1,1    | 1,4  |
|    |    |    |    |    |    | 63, 64   | 1,6  | 2,2    | 2,2    | 2,8  |
|    |    |    |    |    |    | 80, 81   | 3,1  | 4,3    | 4,3    | 5,5  |
|    |    |    |    |    |    | 100, 101 | 5,6  | 7,1    | 8      | 10   |
|    |    |    |    |    |    | 125, 126 | 10,2 | 13,1   | 14,6   | 18,3 |
|    |    |    |    |    |    | 140      | 11,6 | 14,8   | 16,6   | 21   |
|    |    |    |    |    |    | 160      | 19,6 | 25     | 28     | 35   |
|    |    |    |    |    |    | 180      | 23   | 29     | 32     | 40   |

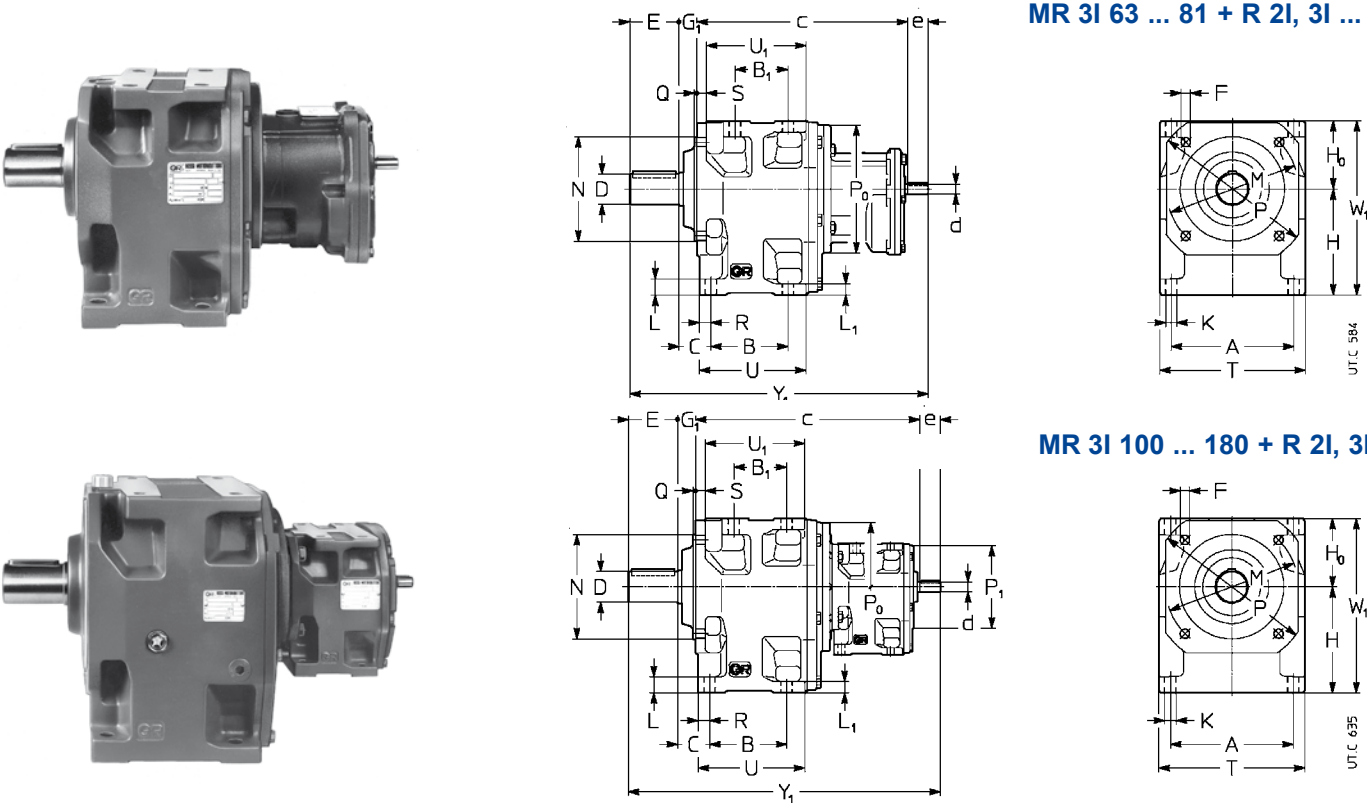
Nominal torques for final gear reducer

| $M_{N2}$ [daN m]<br>for $n_2 \leq 11,2 \text{ min}^{-1(3)}$ | $\eta$ final | $i$ final | Final gear reducer                   | + | Initial gear reducer or gearmotor      |
|-------------------------------------------------------------|--------------|-----------|--------------------------------------|---|----------------------------------------|
| 33,5                                                        | 0,94         | 30        | MR 3I 63-19×160 - 30 <sup>1)</sup>   | + | R 2I or MR 2I, 3I 40                   |
| 45                                                          |              | 30        | MR 3I 64-19×160 - 30 <sup>1)</sup>   | + | R 2I or MR 2I, 3I 40                   |
| 67                                                          |              | 32,8      | MR 3I 80-19×160 - 32,8 <sup>1)</sup> | + | R 2I or MR 2I, 3I 40                   |
| 90                                                          |              | 49,8      | MR 3I 81-19×160 - 49,8 <sup>1)</sup> | + | R 2I or MR 2I, 3I 40                   |
| 132                                                         |              | 32        | MR 3I 100-24×200 - 32                | + | R 2I, 3I or MR 2I, 3I 50 <sup>2)</sup> |
| 180                                                         |              | 53,1      | MR 3I 101-24×200 - 53,1              | + | R 2I, 3I or MR 2I, 3I 50 <sup>2)</sup> |
| 265                                                         |              | 34,1      | MR 3I 125-28×250 - 34,1              | + | R 2I, 3I or MR 2I, 3I 63 <sup>2)</sup> |
| 355                                                         |              | 50,2      | MR 3I 126-28×250 - 50,2              | + | R 2I, 3I or MR 2I, 3I 63 <sup>2)</sup> |
| 500                                                         |              | 55,7      | MR 3I 140-28×250 - 55,7              | + | R 2I, 3I or MR 2I, 3I 63 <sup>2)</sup> |
| 710                                                         |              | 49,7      | MR 3I 160-38×300 - 49,7              | + | R 2I, 3I or MR 2I, 3I 80 <sup>2)</sup> |
| 1 000                                                       |              | 57,1      | MR 3I 180-38×300 - 57,1              | + | R 2I, 3I or MR 2I, 3I 80 <sup>2)</sup> |

For initial gear reducer or gearmotor performance data see ch. 3.5 and 3.7.  
1) Final gearmotor has a 160 mm motor mounting flange (see dimension P<sub>0</sub> ch. 3.8).  
2) Gear reducer in design «Oversized B5 flange» (see ch. 5); moreover, size 63 has the low speed shaft reduced to 28 mm: «Oversized B5 flange - Ø 28».  
3) Provided that fs is always ≥ 0,8, it can be reduced by 1,06 for n<sub>2</sub> = 2,8 ÷ 0,71 min<sup>-1</sup>, by 1,12 for n<sub>2</sub> ≤ 0,71 min<sup>-1</sup>.

Combined unit dimensions<sup>1)</sup>

3.10



1) For design, mounting position and lubricant quantity of single gear reducers, see ch. 3.6 and 3.8.

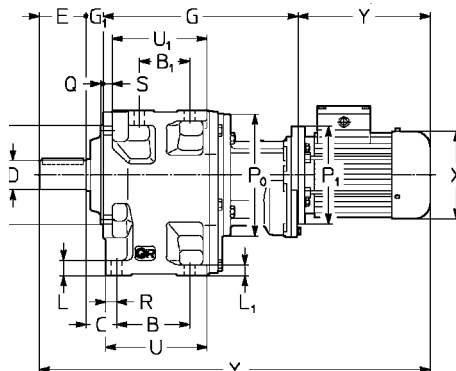
Notes of page 65.  
1) For high speed shaft or motor shaft H is -15 mm, H<sub>0</sub> +15 mm.  
2) For high speed shaft or motor shaft H is -8 mm, H<sub>0</sub> +8 mm.  
3) For high speed shaft or motor shaft H is -29 mm, H<sub>0</sub> +29 mm.  
4) Values valid for brake motor.  
5) Values valid for gearmotor without motor.



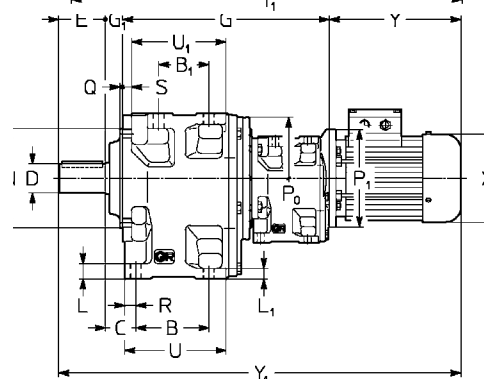
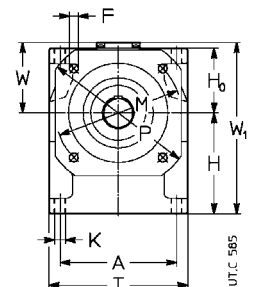
# Combined unit dimensions

3.10

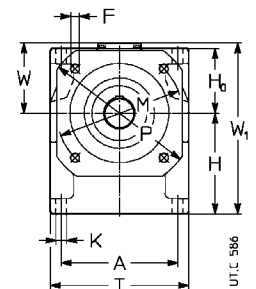
| Gear reducer size |             | A              | B          | C    | c   | D<br>Ø   | E   | d<br>Ø                     | Y <sub>1</sub><br>Ø      | d<br>Ø                   | Y <sub>1</sub><br>Ø       | d<br>Ø   | Y <sub>1</sub><br>Ø | F<br>Ø   | G <sub>1</sub> | H<br>h <sub>11</sub>              | K<br>Ø     | L                                      | M<br>Ø   | N<br>h <sub>6</sub><br>Ø     | P<br>Ø | P <sub>0</sub><br>Ø | P <sub>1</sub><br>Ø | R   | S   | T    | U              | W <sub>1</sub> | Mass       |     |     |
|-------------------|-------------|----------------|------------|------|-----|----------|-----|----------------------------|--------------------------|--------------------------|---------------------------|----------|---------------------|----------|----------------|-----------------------------------|------------|----------------------------------------|----------|------------------------------|--------|---------------------|---------------------|-----|-----|------|----------------|----------------|------------|-----|-----|
| final             | initial     | B <sub>1</sub> |            |      |     |          |     | e<br>h <sub>k</sub> ≤ 12,5 | e<br>h <sub>k</sub> ≥ 16 | e<br>h <sub>k</sub> ≤ 80 | e<br>h <sub>k</sub> ≥ 100 |          |                     |          |                | H <sub>0</sub><br>h <sub>11</sub> |            | L <sub>1</sub>                         |          | Q <sub>+2</sub> <sup>0</sup> |        |                     |                     |     |     |      | U <sub>1</sub> |                | kg         |     |     |
| MR 3I 63<br>64    | R 2I 40     | 153            | 96<br>66   | 36,5 | 280 | 32<br>38 | 58  | 11<br>23                   | 380                      | 11<br>23                 | 380                       | —        | —                   | —        | 11,5           | 19                                | 132<br>85  | 14                                     | 20<br>14 | 165                          | 130    | 200<br>3,5          | 160                 | —   | 16  | 12   | 182            | 136<br>124     | 217        | 27  |     |
| MR 3I 80<br>81    | R 2I 40     | 192            | 123<br>87  | 43   | 319 | 38<br>48 | 80  | 11<br>23                   | 444                      | 11<br>23                 | 444                       | —        | —                   | —        | 14             | 22                                | 160<br>106 | 16                                     | 24<br>17 | 215                          | 180    | 250<br>4            | 160                 | —   | 19  | 14   | 226            | 171<br>157     | 266        | 42  |     |
| MR 3I 100<br>101  | R 2I, 3I 50 | 240            | 160<br>119 | 51,5 | 396 | 48<br>55 | 82  | 14<br>30                   | 535                      | 14<br>30                 | 535                       | 11<br>23 | 528                 | 11<br>23 | 528            | 14                                | 27         | 195<br>132                             | 18       | 28,5<br>20                   | 265    | 230                 | 300<br>4            | 200 | 140 | 22,5 | 16             | 280            | 214<br>198 | 327 | 74  |
| MR 3I 125<br>126  | R 2I, 3I 63 | 297            | 200<br>151 | 59   | 484 | 60<br>70 | 105 | 19<br>40                   | 649                      | 16<br>30                 | 649                       | 14<br>30 | 649                 | 14<br>30 | 649            | 18                                | 30         | 236<br>160                             | 22       | 35<br>25                     | 300    | 250                 | 350<br>5            | 250 | 160 | 26,5 | 19             | 345            | 264<br>245 | 396 | 130 |
| MR 3I 140         | R 2I, 3I 63 | 297            | 218<br>169 | 59   | 502 | 80       | 130 | 11<br>23                   | 692                      | 16<br>30                 | 692                       | 14<br>30 | 692                 | 14<br>30 | 692            | 18                                | 30         | 250 <sup>1)</sup><br>160 <sup>1)</sup> | 22       | 35<br>25                     | 300    | 250                 | 350<br>5            | 250 | 160 | 26,5 | 19             | 345            | 282<br>263 | 410 | 143 |
| MR 3I 160         | R 2I, 3I 80 | 373            | 250<br>191 | 68,5 | 596 | 90       | 130 | 11<br>23                   | 800                      | 19<br>40                 | 800                       | 19<br>40 | 800                 | 16<br>30 | 790            | 22                                | 34         | 295 <sup>2)</sup><br>200 <sup>2)</sup> | 27       | 42<br>30                     | 400    | 350                 | 450<br>5            | 300 | 200 | 31,5 | 22             | 430            | 326<br>304 | 495 | 230 |
| MR 3I 180         | R 2I, 3I 80 | 373            | 275<br>216 | 68,5 | 621 | 100      | 165 | 11<br>23                   | 800                      | 19<br>40                 | 860                       | 19<br>40 | 860                 | 16<br>30 | 850            | 22                                | 34         | 315 <sup>3)</sup><br>200 <sup>3)</sup> | 27       | 42<br>30                     | 400    | 350                 | 450<br>5            | 300 | 200 | 31,5 | 22             | 430            | 351<br>329 | 515 | 253 |



MR 3I 63 ... 81 + MR 2I, 3I ...



MR 3I 100 ... 180 + R 2I, 3I ...



| Size             |              |                               | A   | B          | C    | D<br>Ø                     | E   | F<br>Ø | G   | G <sub>1</sub> | H<br>h <sub>11</sub> | K<br>Ø | L          | M<br>Ø | N<br>Ø | P<br>Ø     | R    | S  | T   | U          | P <sub>0</sub><br>Ø | P <sub>1</sub><br>Ø             | X<br>Ø                          | Y                               | Y <sub>1</sub>                       | W                                    | W <sub>1</sub>                     | Massa<br>Mass<br>kg             |                                   |                                 |                                 |                          |                |
|------------------|--------------|-------------------------------|-----|------------|------|----------------------------|-----|--------|-----|----------------|----------------------|--------|------------|--------|--------|------------|------|----|-----|------------|---------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|--------------------------------------|------------------------------------|---------------------------------|-----------------------------------|---------------------------------|---------------------------------|--------------------------|----------------|
| gear reducer     | motor        | B <sub>5</sub>                |     |            |      |                            |     |        |     |                |                      |        |            |        |        |            |      |    |     |            |                     |                                 |                                 |                                 |                                      |                                      |                                    | B <sub>1</sub>                  | H <sub>0</sub><br>h <sub>11</sub> | L <sub>1</sub>                  | h <sub>6</sub>                  | Q<br>0÷2                 | U <sub>1</sub> |
| final            | initial      | B <sub>5</sub>                |     |            |      |                            |     |        |     |                |                      |        |            |        |        |            |      |    |     |            |                     |                                 |                                 |                                 |                                      |                                      |                                    |                                 |                                   |                                 |                                 |                          |                |
| MR 3I 63<br>64   | MR 2I, 3I 40 | 63<br>71                      | 153 | 96<br>66   | 36,5 | 32<br>(63)<br>38<br>(64)   | 58  | 11,5   | 271 | 19             | 132<br>85            | 14     | 20<br>14   | 165    | 130    | 200<br>3,5 | 16   | 12 | 182 | 136<br>124 | 160                 | 140<br>160                      | 123<br>138                      | 189<br>216                      | 244<br>278                           | 537<br>564                           | 592<br>626                         | 95<br>112                       | 227<br>244                        | 27<br>27                        | 32<br>35                        | 34<br>38                 |                |
| MR 3I 80<br>81   | MR 2I, 3I 40 | 63<br>71<br>80 <sup>B5A</sup> | 192 | 123<br>87  | 43   | 38<br>(80)<br>48<br>(81)   | 80  | 14     | 310 | 22             | 160<br>106           | 16     | 24<br>17   | 215    | 180    | 250<br>4   | 19   | 14 | 226 | 171<br>157 | 160                 | 140<br>160<br>160               | 123<br>138<br>156               | 189<br>216<br>254               | 244<br>278<br>323                    | 601<br>628<br>666                    | 656<br>690<br>735                  | 95<br>112<br>121                | 266<br>272<br>281                 | 42<br>42<br>42                  | 47<br>50<br>54                  | 49<br>53<br>58           |                |
| MR 3I 100<br>101 | MR 2I, 3I 50 | 63<br>71<br>80<br>90          | 240 | 160<br>119 | 51,5 | 48<br>(100)<br>55<br>(101) | 82  | 14     | 386 | 27             | 195<br>132           | 18     | 28,5<br>20 | 265    | 230    | 300<br>4   | 22,5 | 16 | 280 | 214<br>198 | 200                 | 140<br>160<br>200<br>200        | 123<br>138<br>156<br>176        | 189<br>216<br>254<br>287        | 244<br>278<br>302<br>366             | 684<br>711<br>728<br>782             | 739<br>773<br>797<br>861           | 95<br>112<br>121<br>141         | 327<br>327<br>327<br>336          | 74<br>74<br>74<br>74            | 79<br>82<br>86<br>93            | 81<br>85<br>90<br>99     |                |
| MR 3I 125<br>126 | MR 2I, 3I 63 | 71<br>80<br>90<br>100         | 297 | 200<br>151 | 59   | 60<br>(125)<br>70<br>(126) | 105 | 18     | 474 | 30             | 236<br>160           | 22     | 35<br>25   | 300    | 250    | 350<br>5   | 26,5 | 19 | 345 | 264<br>245 | 250                 | 160<br>200<br>200<br>250        | 138<br>156<br>233<br>287        | 216<br>233<br>302<br>366        | 278<br>302<br>366<br>896             | 825<br>842<br>911<br>975             | 887<br>911<br>121<br>141           | 112<br>396<br>130               | 130<br>130<br>130                 | 138<br>142<br>146               | 141<br>154<br>155               |                          |                |
| MR 3I 140        | MR 2I, 3I 63 | 71<br>80<br>90<br>100<br>112  | 297 | 218<br>169 | 59   | 80                         | 130 | 18     | 492 | 30             | 250<br>160<br>1)     | 22     | 35<br>25   | 300    | 250    | 350<br>5   | 26,5 | 19 | 345 | 282<br>263 | 250                 | 160<br>200<br>200<br>250<br>250 | 138<br>156<br>233<br>287<br>218 | 216<br>233<br>302<br>366<br>336 | 278<br>302<br>366<br>939<br>435      | 868<br>885<br>954<br>1018<br>988     | 930<br>954<br>1018<br>1057<br>1087 | 112<br>121<br>141<br>151<br>163 | 410<br>410<br>410<br>410<br>410   | 143<br>143<br>143<br>143<br>143 | 151<br>155<br>162<br>169<br>178 | 154<br>159<br>175<br>177 |                |
| MR 3I 160        | MR 2I, 3I 80 | 80<br>90<br>100<br>112<br>132 | 373 | 250<br>191 | 68,5 | 90                         | 130 | 22     | 585 | 34             | 295<br>200<br>2)     | 27     | 42<br>30   | 400    | 350    | 450<br>5   | 31,5 | 22 | 430 | 326<br>304 | 300                 | 200<br>200<br>250<br>250<br>300 | 156<br>176<br>233<br>287<br>257 | 233<br>302<br>366<br>435<br>445 | 302<br>366<br>1036<br>1154<br>1197   | 982<br>1051<br>1115<br>1154<br>1305  | 1051<br>121<br>141<br>151<br>194   | 495<br>230<br>495<br>230<br>495 | 230<br>242<br>246<br>265<br>230   | 242<br>255<br>262<br>274<br>299 | 246<br>255<br>262<br>278<br>311 |                          |                |
| MR 3I 180        | MR 2I, 3I 80 | 80<br>90<br>100<br>112<br>132 | 373 | 275<br>216 | 68,5 | 100                        | 165 | 22     | 610 | 37             | 315<br>200<br>3)     | 27     | 42<br>30   | 400    | 350    | 450<br>5   | 31,5 | 22 | 430 | 351<br>329 | 300                 | 200<br>200<br>250<br>250<br>300 | 156<br>176<br>233<br>287<br>257 | 233<br>302<br>366<br>435<br>445 | 1045<br>1099<br>1178<br>1217<br>1247 | 1114<br>1154<br>1197<br>1217<br>1247 | 121<br>141<br>151<br>151<br>163    | 515<br>515<br>515<br>515<br>515 | 253<br>253<br>253<br>253<br>253   | 265<br>272<br>278<br>285<br>288 | 269<br>278<br>285<br>297<br>322 |                          |                |

See notes on page 52.

Radial loads generated on the shaft end by a drive connecting gear reducer and motor must be less than or equal to those given in the relevant table.

The radial load  $F_{r1}$  given by the following formula refers to most common drives:

$$F_{r1} = \frac{2865 \cdot P_1}{d \cdot n_1} \text{ [daN]} \quad \text{for timing belt drive}$$

$$F_{r1} = \frac{4775 \cdot P_1}{d \cdot n_1} \text{ [daN]} \quad \text{for V-belt drive}$$

where:  $P_1$  [kW] is power required at the input side of the gear reducer,  $n_1$  [min<sup>-1</sup>] is the speed,  $d$  [m] is the pitch diameter.

Radial loads given in the table are valid for overhung loads on centre line of high speed shaft end, i.e. operating at a distance of  $0,5 \cdot e$  ( $e$  = shaft end length) from the shoulder. If they operate at  $0,315 \cdot e$  multiply by 1,25; if they operate at  $0,8 \cdot e$  multiply by 0,8.

| n <sub>1</sub><br>min <sup>-1</sup> | Gear reducer |      |                       |                     |      |                       |                     |      |                       |                     |      |          |      |               |      |          |      |
|-------------------------------------|--------------|------|-----------------------|---------------------|------|-----------------------|---------------------|------|-----------------------|---------------------|------|----------|------|---------------|------|----------|------|
|                                     | 32           | 40   | 50                    |                     |      | 63                    |                     |      | 80                    |                     |      | 100, 101 |      | 125, 126, 140 |      | 160, 180 |      |
|                                     |              |      | 51                    | 51                  | 51   | 64                    | 64                  | 64   | 81                    | 81                  | 81   |          |      |               |      |          |      |
|                                     |              |      | i <sub>N</sub> ≤ 12,5 | i <sub>N</sub> ≥ 16 |      | i <sub>N</sub> ≤ 12,5 | i <sub>N</sub> ≥ 16 |      | i <sub>N</sub> ≤ 12,5 | i <sub>N</sub> ≥ 16 |      |          |      |               |      |          |      |
|                                     |              |      | R 2I                  | R 2I                | R 2I | R 2I                  | R 3I                | R 2I | R 2I                  | R 3I                | R 2I | R 2I     | R 3I | R 2I          | R 3I | R 2I     | R 3I |
| 1 400                               | 11,2         | 17   | 42,5                  | 26,5                | 17   | 67                    | 42,5                | 26,5 | 106                   | 67                  | 42,5 | 170      | 67   | 265           | 170  | 425      | 265  |
| 1 120                               | 11,8         | 18   | 45                    | 28                  | 18   | 71                    | 45                  | 28   | 112                   | 71                  | 45   | 180      | 71   | 280           | 180  | 450      | 280  |
| 900                                 | 12,5         | 19   | 47,5                  | 30                  | 19   | 75                    | 47,5                | 30   | 118                   | 75                  | 47,5 | 190      | 75   | 300           | 190  | 475      | 300  |
| 710                                 | 14           | 21,2 | 53                    | 33,5                | 21,2 | 85                    | 53                  | 33,5 | 132                   | 85                  | 53   | 212      | 85   | 335           | 212  | 530      | 335  |
| 560                                 | 15           | 22,4 | 56                    | 35,5                | 22,4 | 90                    | 56                  | 35,5 | 140                   | 90                  | 56   | 224      | 90   | 355           | 224  | 560      | 355  |
| 450                                 | 16           | 23,6 | 60                    | 37,5                | 23,6 | 95                    | 60                  | 37,5 | 150                   | 95                  | 60   | 236      | 95   | 375           | 236  | 600      | 375  |
| 355                                 | 18           | 26,5 | 67                    | 42,5                | 26,5 | 106                   | 67                  | 42,5 | 170                   | 106                 | 67   | 265      | 106  | 425           | 265  | 670      | 425  |

1) An axial load of up to 0,2 times the value in the table is permissible, simultaneously with the radial load. If exceeded consult us.

**IMPORTANT:** tabulated values for radial load  $F_{r1}$  can increase considerably in certain instances (direction of rotation, angular position of load, etc.). **Consult us** if need be.

## Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

### Axial loads $F_{a2}$

Permissible  $F_{a2}$  is shown in the column where direction of rotation of low speed shaft (black or white arrow) and direction of the axial force (solid or broken arrow) correspond to those of the gear reducer in question.

Wherever possible, choose the load conditions corresponding to the **column with highest** admissible values.

### Radial loads $F_{r2}$

Radial loads generated on the shaft end by a drive connecting gear reducer and machine must be less than or equal to those given in the relevant table.

Normally, radial loads on low speed shaft ends are considerable: in fact there is a tendency to connect the gear reducer to the machine by means of a transmission with high transmission ratio (economizing on the gear reducer) and with small diameters (economizing on the drive, and for requirements dictated by overall dimensions).

Bearing life and wear (which also affect gears unfavourably) and low speed shaft strength, clearly impose limits on permissible radial load.

The high value which radial load may take on, and the importance of not exceeding permissible values, make it necessary to take full advantage of the gear reducer's possibilities.

Permissible radial loads given in the table are therefore based on: the product of speed  $n_2$  [min<sup>-1</sup>] multiplied by bearing life  $L_h$  [h] required, the direction of rotation, the angular position  $\varphi$  [°] of the load and torque  $M_2$  [daN m] required.

Radial loads given in the table are valid for overhung loads on centre line of low speed shaft end, i.e. operating at a distance of  $0,5 \cdot E$  ( $E$  = shaft end length) from the shoulder. If operating at  $0,315 \cdot E$  multiply by 1,25; if operating at  $0,8 \cdot E$  multiply by 0,8.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

Radial load  $F_{r2}$  for most common drives has the following value and angular position:

$$F_{r2} = \frac{1\,910 \cdot P_2}{d \cdot n_2} \text{ [daN]}$$

for chain drive (lifting in general); for timing belt drive replace 1 910 with 2 865

$$F_{r2} = \frac{4\,775 \cdot P_2}{d \cdot n_2} \text{ [daN]}$$

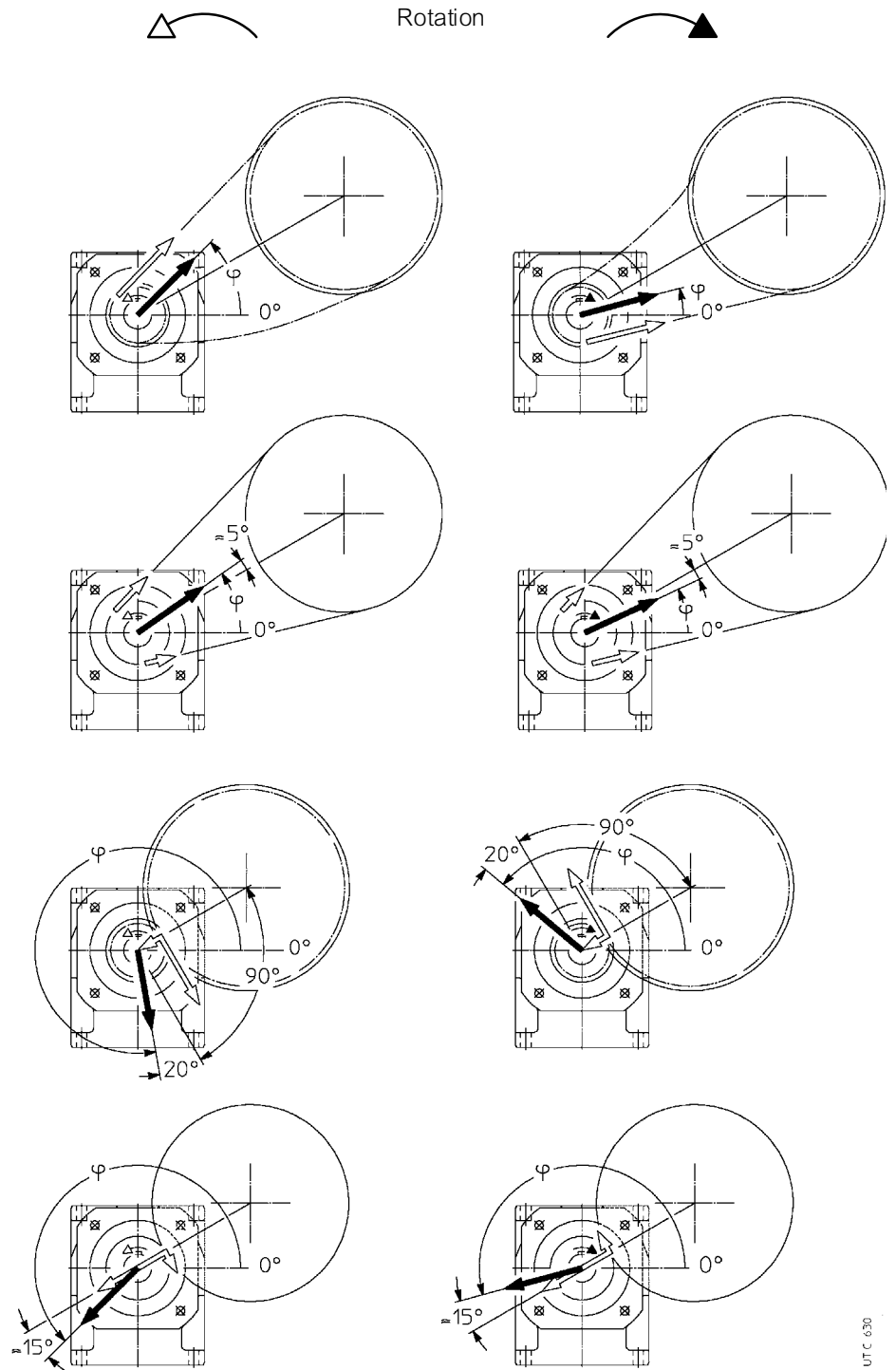
for V-belt drive

$$F_{r2} = \frac{2\,032 \cdot P_2}{d \cdot n_2} \text{ [daN]}$$

for spur gear pair drive

$$F_{r2} = \frac{6\,781 \cdot P_2}{d \cdot n_2} \text{ [daN]}$$

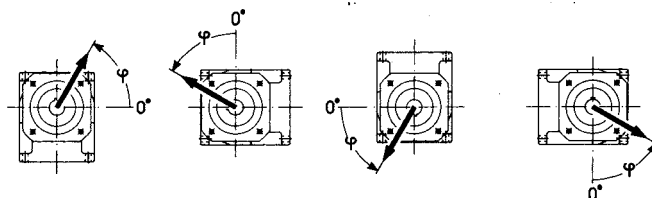
for friction wheel drive (rubber-on-metal)



UTC 6/30

where:  $P_2$  [kW] is power required at the output side of the gear reducer,  $n_2$  [ $\text{min}^{-1}$ ] is the speed,  $d$  [m] is the pitch diameter.

**IMPORTANT:**  $0^\circ$  coincides with a half line parallel to the bolted base of the housing as shown above, and therefore it follows the rotation of the housing, as shown below.

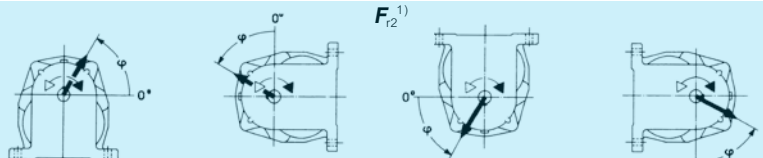
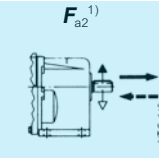


In the flanged design (sizes 32 ... 41),  $0^\circ$  remains in the same position, as per the same shape of the housing.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

size

32

| $n_2 \cdot L_1$                  | $M_2$ |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |         |         |      |
|----------------------------------|-------|------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------------------------------------------------------------------------|---------|---------|------|
| $\text{min}^{-1} \cdot \text{h}$ | daN m | 0                                                                                  | 45  | 90  | 135 | 180 | 225 | 270 | 315 | 0   | 45  | 90  | 135 | 180 | 225 | 270 | 315 | → ↓ ← ↑                                                                             | → ↓ ← ↑ | → ↓ ← ↑ |      |
| 900 000                          | 3,55  | 125                                                                                | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 118 | 118 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 2,5   | 125                                                                                | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,8   | 125                                                                                | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
| 1 120 000                        | 3,55  | 106                                                                                | 106 | 118 | 125 | 125 | 125 | 125 | 118 | 125 | 125 | 118 | 106 | 100 | 118 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 2,5   | 112                                                                                | 112 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 112 | 106 | 106 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,8   | 118                                                                                | 118 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 118 | 112 | 125 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
| 1 400 000                        | 2,5   | 100                                                                                | 106 | 112 | 125 | 125 | 112 | 118 | 118 | 125 | 125 | 112 | 100 | 95  | 112 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,8   | 106                                                                                | 112 | 118 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 106 | 100 | 118 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,25  | 112                                                                                | 118 | 118 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 112 | 112 | 118 | 125 | 125 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
| 1 800 000                        | 2,5   | 95                                                                                 | 95  | 106 | 125 | 118 | 100 | 106 | 112 | 112 | 118 | 106 | 90  | 85  | 106 | 125 | 125 | 33,5                                                                                | 71      | 71      | 33,5 |
|                                  | 1,8   | 100                                                                                | 100 | 112 | 125 | 125 | 125 | 125 | 112 | 125 | 125 | 106 | 100 | 95  | 106 | 118 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,25  | 106                                                                                | 106 | 112 | 125 | 125 | 125 | 125 | 112 | 125 | 125 | 112 | 106 | 100 | 112 | 118 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
| 2 240 000                        | 2,5   | 85                                                                                 | 85  | 95  | 112 | 112 | 100 | 106 | 95  | 112 | 112 | 95  | 85  | 80  | 90  | 100 | 112 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,8   | 90                                                                                 | 90  | 100 | 118 | 118 | 100 | 112 | 100 | 118 | 118 | 100 | 90  | 85  | 100 | 112 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,25  | 95                                                                                 | 95  | 100 | 118 | 118 | 118 | 112 | 106 | 125 | 118 | 100 | 95  | 90  | 100 | 112 | 125 | 35,5                                                                                | 71      | 71      | 35,5 |
| 2 800 000                        | 2,5   | 71                                                                                 | 80  | 85  | 112 | 112 | 90  | 95  | 85  | 95  | 95  | 90  | 71  | 75  | 85  | 106 | 112 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,8   | 80                                                                                 | 85  | 90  | 112 | 112 | 95  | 100 | 95  | 106 | 106 | 90  | 80  | 80  | 90  | 106 | 118 | 35,5                                                                                | 71      | 71      | 35,5 |
|                                  | 1,25  | 90                                                                                 | 90  | 95  | 106 | 112 | 112 | 106 | 100 | 118 | 112 | 95  | 90  | 85  | 95  | 106 | 118 | 35,5                                                                                | 71      | 71      | 35,5 |
| 3 550 000                        | 1,8   | 75                                                                                 | 80  | 85  | 106 | 100 | 85  | 90  | 90  | 95  | 95  | 85  | 75  | 71  | 85  | 95  | 106 | 35,5                                                                                | 67      | 71      | 31,5 |
|                                  | 1,25  | 80                                                                                 | 85  | 90  | 100 | 106 | 100 | 95  | 90  | 106 | 106 | 90  | 80  | 80  | 90  | 95  | 106 | 35,5                                                                                | 71      | 71      | 35,5 |
| 4 500 000                        | 1,8   | 67                                                                                 | 71  | 80  | 95  | 85  | 75  | 80  | 80  | 80  | 90  | 75  | 67  | 63  | 80  | 90  | 100 | 35,5                                                                                | 63      | 71      | 25   |
|                                  | 1,25  | 75                                                                                 | 75  | 80  | 95  | 100 | 90  | 90  | 85  | 95  | 95  | 80  | 75  | 71  | 80  | 90  | 100 | 35,5                                                                                | 63      | 71      | 35,5 |
| 5 600 000                        | 1,25  | 67                                                                                 | 67  | 75  | 85  | 90  | 80  | 85  | 75  | 85  | 90  | 75  | 67  | 63  | 75  | 85  | 95  | 35,5                                                                                | 60      | 71      | 31,5 |
| max                              |       | 125                                                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 35,5                                                                                | 71      | 71      | 35,5 |

1) An axial load of up 0,2 times the value in the table is permissible, simultaneously with the radial load and vice versa. If exceeded consult us.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

size **40**

| $n_2 \cdot L_n$                  | $M_2$ |            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                      |
|----------------------------------|-------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|
| $\text{min}^{-1} \cdot \text{h}$ | daN m | 0          | 45  | 90  | 135 | 180 | 225 | 270 | 315 | 0   | 45  | 90  | 135 | 180 | 225 | 270 | 315 |                      |
| <b>710 000</b>                   | 7,1   | 150        | 140 | 170 | 200 | 170 | 132 | 160 | 170 | 160 | 180 | 170 | 150 | 132 | 160 | 180 | 200 | 112 56               |
|                                  | 5     | 160        | 160 | 180 | 200 | 200 | 180 | 190 | 180 | 200 | 200 | 180 | 160 | 150 | 170 | 200 | 200 | 112 56               |
|                                  | 3,55  | 170        | 180 | 190 | 200 | 200 | 200 | 200 | 190 | 200 | 200 | 190 | 170 | 170 | 180 | 200 | 200 | 112 56               |
| <b>900 000</b>                   | 7,1   | 150        | 150 | 170 | 200 | 180 | 160 | 170 | 170 | 180 | 190 | 160 | 150 | 140 | 170 | 200 | 170 | 112 45               |
|                                  | 5     | 160        | 160 | 170 | 200 | 200 | 190 | 190 | 180 | 200 | 200 | 170 | 160 | 150 | 170 | 190 | 200 | 112 56               |
|                                  | 3,55  | 170        | 170 | 180 | 200 | 200 | 200 | 190 | 180 | 200 | 200 | 180 | 170 | 160 | 180 | 190 | 200 | 112 56               |
| <b>1 120 000</b>                 | 7,1   | 125        | 132 | 140 | 200 | 140 | 125 | 118 | 140 | 140 | 160 | 140 | 125 | 118 | 140 | 170 | 190 | 112 30               |
|                                  | 5     | 132        | 140 | 150 | 200 | 160 | 140 | 140 | 160 | 160 | 170 | 150 | 132 | 125 | 150 | 180 | 200 | 112 56               |
|                                  | 3,55  | 140        | 150 | 160 | 190 | 190 | 170 | 180 | 160 | 180 | 180 | 160 | 140 | 140 | 160 | 180 | 200 | 112 56               |
| <b>1 400 000</b>                 | 5     | 118        | 125 | 140 | 180 | 140 | 118 | 125 | 150 | 140 | 150 | 132 | 118 | 106 | 140 | 170 | 190 | 112 56               |
|                                  | 3,55  | 132        | 132 | 150 | 180 | 170 | 150 | 160 | 150 | 170 | 160 | 140 | 132 | 125 | 150 | 170 | 180 | 112 56               |
|                                  | 2,5   | 140        | 140 | 150 | 170 | 180 | 180 | 160 | 150 | 180 | 170 | 150 | 140 | 132 | 150 | 160 | 180 | 112 56               |
| <b>1 800 000</b>                 | 5     | 106        | 112 | 132 | 170 | 125 | 100 | 106 | 132 | 118 | 132 | 125 | 106 | 95  | 125 | 150 | 170 | 112 45               |
|                                  | 3,55  | 118        | 112 | 132 | 160 | 160 | 132 | 140 | 140 | 150 | 150 | 132 | 118 | 112 | 132 | 150 | 170 | 112 56               |
|                                  | 2,5   | 125        | 132 | 140 | 160 | 170 | 160 | 150 | 140 | 170 | 160 | 140 | 125 | 125 | 140 | 150 | 170 | 112 56               |
| <b>2 240 000</b>                 | 5     | 95         | 106 | 118 | 140 | 132 | 106 | 112 | 118 | 118 | 132 | 112 | 95  | 90  | 112 | 132 | 140 | 112 28,5             |
|                                  | 3,55  | 106        | 112 | 125 | 150 | 140 | 118 | 125 | 125 | 132 | 140 | 118 | 106 | 100 | 125 | 140 | 160 | 112 56               |
|                                  | 2,5   | 118        | 118 | 125 | 150 | 150 | 140 | 140 | 132 | 150 | 150 | 125 | 118 | 112 | 125 | 140 | 160 | 112 56               |
| <b>2 800 000</b>                 | 5     | 95         | 95  | 106 | 132 | 112 | 80  | 85  | 106 | 100 | 112 | 106 | 90  | 80  | 100 | 125 | 132 | 112 20               |
|                                  | 3,55  | 100        | 100 | 112 | 140 | 125 | 100 | 106 | 118 | 118 | 125 | 112 | 95  | 90  | 112 | 132 | 150 | 112 50               |
|                                  | 2,5   | 106        | 106 | 118 | 140 | 140 | 125 | 132 | 118 | 140 | 140 | 118 | 106 | 100 | 118 | 132 | 150 | 112 56               |
| <b>3 500 000</b>                 | 3,55  | 90         | 95  | 106 | 132 | 106 | 90  | 95  | 106 | 106 | 112 | 100 | 85  | 80  | 100 | 125 | 140 | 112 40               |
|                                  | 2,5   | 95         | 100 | 106 | 132 | 132 | 112 | 118 | 112 | 125 | 125 | 106 | 95  | 90  | 106 | 125 | 132 | 112 56               |
| <b>4 500 000</b>                 | 3,55  | 80         | 85  | 95  | 125 | 95  | 80  | 80  | 100 | 95  | 100 | 90  | 80  | 71  | 95  | 112 | 132 | 112 30               |
|                                  | 2,5   | 90         | 90  | 100 | 118 | 118 | 100 | 106 | 100 | 112 | 112 | 95  | 90  | 85  | 100 | 112 | 125 | 112 50               |
|                                  | 2,5   | 80         | 85  | 90  | 112 | 106 | 90  | 95  | 95  | 100 | 100 | 90  | 80  | 75  | 90  | 106 | 118 | 112 40               |
| max                              |       | <b>200</b> |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | <b>112 56 56 112</b> |

size

41

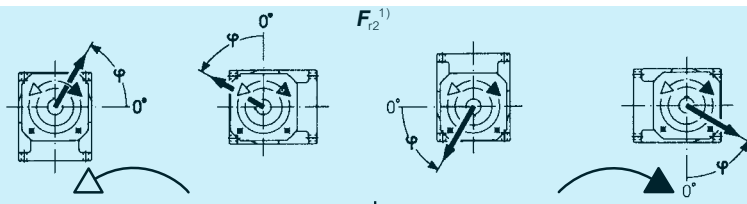
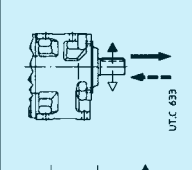
|           |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |    |     |
|-----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| 710 000   | 7,1  | 212 | 212 | 236 | 250 | 190 | 150 | 180 | 224 | 180 | 200 | 224 | 200 | 200 | 224 | 250 | 224 | 140 | 67   | 71 | 140 |
|           | 5    | 224 | 224 | 236 | 250 | 250 | 236 | 250 | 236 | 250 | 250 | 236 | 212 | 212 | 224 | 250 | 250 | 140 | 71   | 71 | 140 |
|           | 3,55 | 224 | 224 | 236 | 250 | 250 | 250 | 250 | 236 | 250 | 250 | 236 | 224 | 224 | 236 | 250 | 250 | 140 | 71   | 71 | 140 |
| 900 000   | 7,1  | 190 | 190 | 212 | 250 | 200 | 180 | 190 | 212 | 200 | 212 | 212 | 180 | 180 | 200 | 236 | 190 | 140 | 67   | 71 | 140 |
|           | 5    | 200 | 200 | 224 | 250 | 250 | 212 | 236 | 212 | 224 | 250 | 212 | 200 | 190 | 212 | 236 | 250 | 140 | 71   | 71 | 140 |
|           | 3,55 | 212 | 212 | 224 | 236 | 250 | 250 | 236 | 224 | 250 | 250 | 224 | 212 | 200 | 212 | 236 | 250 | 140 | 71   | 71 | 140 |
| 1 120 000 | 7,1  | 170 | 170 | 190 | 224 | 160 | 140 | 132 | 190 | 160 | 180 | 190 | 160 | 160 | 180 | 224 | 212 | 140 | 47,5 | 71 | 140 |
|           | 5    | 180 | 190 | 200 | 224 | 212 | 170 | 200 | 200 | 190 | 212 | 200 | 180 | 180 | 190 | 224 | 236 | 140 | 71   | 71 | 140 |
|           | 3,55 | 190 | 190 | 200 | 224 | 236 | 236 | 224 | 200 | 236 | 224 | 200 | 190 | 190 | 200 | 224 | 236 | 140 | 71   | 71 | 140 |
| 1 400 000 | 5    | 170 | 170 | 190 | 212 | 180 | 140 | 170 | 180 | 160 | 190 | 180 | 160 | 160 | 180 | 212 | 212 | 140 | 71   | 71 | 140 |
|           | 3,55 | 180 | 180 | 190 | 212 | 224 | 212 | 200 | 190 | 224 | 212 | 190 | 170 | 170 | 180 | 200 | 224 | 140 | 71   | 71 | 140 |
|           | 2,5  | 180 | 180 | 190 | 200 | 212 | 212 | 200 | 190 | 212 | 212 | 190 | 180 | 180 | 190 | 200 | 212 | 140 | 71   | 71 | 140 |
| 1 800 000 | 5    | 160 | 160 | 170 | 200 | 150 | 112 | 140 | 170 | 140 | 160 | 170 | 150 | 150 | 160 | 190 | 190 | 140 | 67   | 71 | 140 |
|           | 3,55 | 160 | 160 | 180 | 190 | 200 | 180 | 190 | 170 | 200 | 200 | 170 | 160 | 160 | 170 | 190 | 212 | 140 | 71   | 71 | 140 |
|           | 2,5  | 170 | 170 | 180 | 190 | 200 | 200 | 190 | 180 | 200 | 190 | 180 | 170 | 170 | 170 | 190 | 200 | 140 | 71   | 71 | 140 |
| 2 240 000 | 5    | 140 | 140 | 160 | 180 | 150 | 118 | 125 | 150 | 132 | 150 | 150 | 132 | 132 | 150 | 180 | 160 | 140 | 47,5 | 71 | 140 |
|           | 3,55 | 150 | 150 | 160 | 180 | 190 | 160 | 180 | 160 | 170 | 180 | 160 | 150 | 140 | 160 | 180 | 190 | 140 | 71   | 71 | 140 |
|           | 2,5  | 160 | 160 | 160 | 180 | 180 | 180 | 170 | 160 | 190 | 180 | 160 | 150 | 150 | 160 | 170 | 190 | 140 | 71   | 71 | 140 |
| 2 800 000 | 5    | 132 | 132 | 150 | 170 | 125 | 90  | 106 | 140 | 112 | 125 | 140 | 118 | 125 | 132 | 160 | 150 | 140 | 67   | 71 | 125 |
|           | 3,55 | 140 | 140 | 150 | 170 | 160 | 132 | 150 | 150 | 150 | 170 | 150 | 132 | 132 | 140 | 160 | 180 | 140 | 71   | 71 | 132 |
|           | 2,5  | 140 | 140 | 150 | 160 | 170 | 170 | 160 | 150 | 180 | 170 | 150 | 140 | 140 | 150 | 160 | 180 | 140 | 71   | 71 | 140 |
| 3 550 000 | 3,55 | 125 | 125 | 140 | 160 | 140 | 112 | 125 | 132 | 125 | 140 | 140 | 118 | 118 | 132 | 150 | 160 | 140 | 56   | 71 | 118 |
|           | 2,5  | 132 | 132 | 140 | 150 | 160 | 160 | 150 | 140 | 170 | 160 | 140 | 132 | 125 | 140 | 150 | 160 | 140 | 71   | 71 | 132 |
| 4 500 000 | 3,55 | 112 | 118 | 125 | 150 | 112 | 90  | 106 | 125 | 106 | 118 | 125 | 112 | 106 | 118 | 140 | 150 | 140 | 45   | 71 | 106 |
|           | 2,5  | 118 | 125 | 132 | 140 | 150 | 140 | 140 | 125 | 150 | 150 | 132 | 118 | 118 | 125 | 140 | 150 | 140 | 71   | 71 | 118 |
| 5 600 000 | 2,5  | 112 | 118 | 125 | 132 | 140 | 132 | 132 | 118 | 132 | 140 | 125 | 112 | 112 | 112 | 132 | 140 | 140 | 63   | 71 | 106 |
| max       |      | 250 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 140 | 71   | 71 | 140 |

1) An axial load of up 0,2 times the value in the table is permissible, simultaneously with the radial load and vice versa. If exceeded consult us.



# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

size **50**

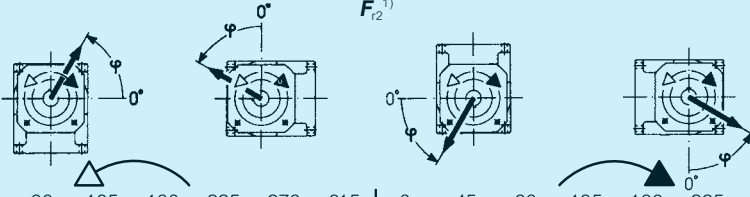
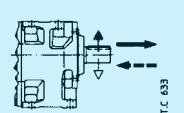
| $n_2 \cdot L_h$                  | $M_2$ |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |       |       |       |
|----------------------------------|-------|------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------------------------------------------------------------------------|-------|-------|-------|
| $\text{min}^{-1} \cdot \text{h}$ | daN m | 0                                                                                  | 45  | 90  | 135 | 180 | 225 | 270 | 315 | 0   | 45  | 90  | 135 | 180 | 225 | 270 | 315 | → ↓ ←                                                                               | → ↑ ← | → ↓ ← | → ↑ ← |
| <b>710 000</b>                   | 12,5  | 300                                                                                | 280 | 300 | 335 | 280 | 280 | 355 | 355 | 224 | 335 | 355 | 335 | 300 | 300 | 335 | 224 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 9     | 315                                                                                | 300 | 335 | 355 | 315 | 315 | 355 | 355 | 315 | 355 | 335 | 355 | 315 | 315 | 335 | 300 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 6,3   | 280                                                                                | 250 | 265 | 315 | 236 | 236 | 355 | 335 | 180 | 280 | 355 | 300 | 265 | 280 | 280 | 180 | 100                                                                                 | 200   | 200   | 100   |
| <b>900 000</b>                   | 12,5  | 300                                                                                | 280 | 300 | 315 | 315 | 335 | 355 | 335 | 280 | 355 | 335 | 315 | 280 | 300 | 315 | 280 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 9     | 300                                                                                | 280 | 300 | 335 | 355 | 355 | 355 | 335 | 355 | 355 | 335 | 315 | 300 | 300 | 315 | 355 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 6,3   | 250                                                                                | 224 | 236 | 265 | 190 | 200 | 300 | 300 | 140 | 224 | 315 | 265 | 250 | 250 | 224 | 140 | 100                                                                                 | 200   | 200   | 75    |
| <b>1 120 000</b>                 | 12,5  | 265                                                                                | 250 | 265 | 300 | 280 | 280 | 355 | 315 | 250 | 335 | 315 | 280 | 265 | 265 | 300 | 250 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 9     | 280                                                                                | 265 | 280 | 300 | 315 | 315 | 335 | 315 | 315 | 335 | 315 | 300 | 280 | 280 | 300 | 315 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 6,3   | 250                                                                                | 224 | 236 | 265 | 190 | 200 | 300 | 300 | 212 | 300 | 300 | 265 | 236 | 250 | 265 | 212 | 100                                                                                 | 200   | 200   | 100   |
| <b>1 400 000</b>                 | 12,5  | 265                                                                                | 250 | 265 | 280 | 300 | 315 | 315 | 280 | 280 | 315 | 300 | 265 | 250 | 265 | 280 | 280 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 9     | 265                                                                                | 250 | 265 | 280 | 300 | 315 | 315 | 280 | 315 | 300 | 300 | 280 | 265 | 265 | 280 | 300 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 4,5   | 224                                                                                | 200 | 212 | 250 | 212 | 212 | 300 | 265 | 170 | 250 | 280 | 236 | 224 | 224 | 250 | 180 | 100                                                                                 | 200   | 200   | 95    |
| <b>1 800 000</b>                 | 12,5  | 236                                                                                | 224 | 236 | 265 | 280 | 280 | 300 | 265 | 250 | 300 | 280 | 250 | 236 | 236 | 250 | 250 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 9     | 250                                                                                | 236 | 236 | 265 | 280 | 300 | 280 | 265 | 280 | 280 | 265 | 250 | 250 | 250 | 265 | 280 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 4,5   | 200                                                                                | 180 | 190 | 236 | 180 | 180 | 265 | 236 | 140 | 212 | 250 | 224 | 200 | 200 | 212 | 140 | 100                                                                                 | 200   | 200   | 67    |
| <b>2 240 000</b>                 | 12,5  | 212                                                                                | 200 | 212 | 236 | 236 | 250 | 280 | 250 | 212 | 280 | 250 | 224 | 212 | 212 | 236 | 212 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 9     | 224                                                                                | 212 | 224 | 236 | 265 | 280 | 265 | 250 | 265 | 265 | 250 | 236 | 224 | 224 | 236 | 250 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 4,5   | 180                                                                                | 170 | 180 | 200 | 150 | 150 | 236 | 224 | 112 | 170 | 236 | 200 | 180 | 190 | 180 | 112 | 100                                                                                 | 180   | 200   | 50    |
| <b>2 800 000</b>                 | 12,5  | 200                                                                                | 180 | 190 | 224 | 212 | 224 | 265 | 224 | 190 | 250 | 236 | 212 | 200 | 200 | 212 | 190 | 100                                                                                 | 180   | 200   | 100   |
|                                  | 9     | 212                                                                                | 200 | 200 | 224 | 250 | 265 | 250 | 224 | 236 | 250 | 236 | 212 | 200 | 212 | 224 | 236 | 100                                                                                 | 200   | 200   | 100   |
|                                  | 4,5   | 180                                                                                | 170 | 180 | 200 | 190 | 190 | 236 | 212 | 160 | 224 | 212 | 190 | 180 | 180 | 200 | 160 | 100                                                                                 | 170   | 200   | 80    |
| <b>3 550 000</b>                 | 12,5  | 190                                                                                | 180 | 190 | 200 | 224 | 236 | 236 | 212 | 212 | 236 | 212 | 200 | 190 | 190 | 200 | 212 | 100                                                                                 | 180   | 200   | 100   |
|                                  | 9     | 160                                                                                | 150 | 160 | 190 | 160 | 170 | 224 | 190 | 132 | 190 | 200 | 180 | 160 | 170 | 180 | 132 | 100                                                                                 | 150   | 200   | 63    |
|                                  | 4,5   | 170                                                                                | 160 | 170 | 190 | 200 | 212 | 212 | 200 | 190 | 212 | 200 | 180 | 170 | 170 | 190 | 190 | 100                                                                                 | 160   | 200   | 95    |
| <b>4 500 000</b>                 | 12,5  | 150                                                                                | 140 | 140 | 170 | 140 | 140 | 200 | 180 | 112 | 160 | 190 | 160 | 150 | 150 | 160 | 112 | 100                                                                                 | 140   | 200   | 50    |
|                                  | 9     | 160                                                                                | 150 | 150 | 170 | 180 | 190 | 200 | 180 | 160 | 200 | 190 | 170 | 160 | 160 | 170 | 170 | 100                                                                                 | 150   | 200   | 80    |
|                                  | 4,5   | 160                                                                                | 150 | 150 | 170 | 180 | 190 | 200 | 180 | 160 | 200 | 190 | 170 | 160 | 160 | 170 | 170 | 100                                                                                 | 150   | 200   | 80    |
| max                              |       | 355                                                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 100                                                                                 | 200   | 200   | 100   |

size **51**

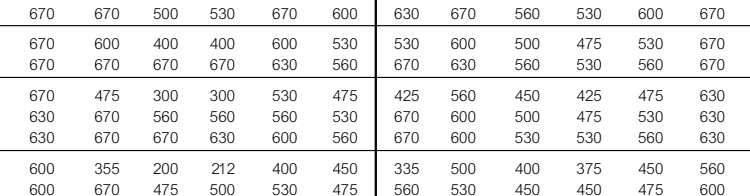
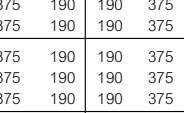
|           |      |                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----------|------|------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 450 000   | 18   | 375                                            | 355 | 375 | 425 | 425 | 425 | 425 | 425 | 425 | 425 | 425 | 425 | 375 | 375 | 425 | 425 | 118 | 236 | 236 | 118 |
|           | 12,5 | 375                                            | 355 | 355 | 425 | 425 | 425 | 425 | 425 | 425 | 425 | 425 | 400 | 375 | 375 | 425 | 425 | 118 | 236 | 236 | 118 |
| 560 000   | 18   | 315                                            | 280 | 300 | 375 | 355 | 375 | 425 | 400 | 280 | 425 | 425 | 355 | 315 | 315 | 375 | 280 | 118 | 236 | 236 | 118 |
|           | 12,5 | 335                                            | 315 | 335 | 375 | 425 | 425 | 425 | 400 | 425 | 425 | 425 | 375 | 335 | 335 | 375 | 425 | 118 | 236 | 236 | 118 |
|           | 9    | 355                                            | 335 | 355 | 400 | 425 | 425 | 425 | 400 | 425 | 425 | 425 | 375 | 355 | 355 | 375 | 425 | 118 | 236 | 236 | 118 |
| 710 000   | 18   | 280                                            | 250 | 265 | 335 | 300 | 315 | 425 | 375 | 224 | 355 | 400 | 315 | 280 | 280 | 335 | 224 | 118 | 236 | 236 | 118 |
|           | 12,5 | 315                                            | 280 | 300 | 355 | 425 | 425 | 425 | 375 | 400 | 425 | 400 | 335 | 315 | 315 | 355 | 400 | 118 | 236 | 236 | 118 |
|           | 9    | 335                                            | 315 | 315 | 355 | 400 | 425 | 425 | 375 | 425 | 425 | 375 | 355 | 335 | 335 | 355 | 400 | 118 | 236 | 236 | 118 |
| 900 000   | 18   | 250                                            | 224 | 236 | 315 | 236 | 250 | 400 | 335 | 160 | 265 | 355 | 280 | 250 | 265 | 280 | 160 | 118 | 236 | 236 | 80  |
|           | 12,5 | 280                                            | 265 | 280 | 335 | 400 | 400 | 400 | 335 | 335 | 400 | 355 | 315 | 280 | 280 | 315 | 335 | 118 | 236 | 236 | 118 |
|           | 9    | 300                                            | 280 | 300 | 335 | 375 | 400 | 400 | 355 | 400 | 375 | 355 | 315 | 300 | 300 | 335 | 375 | 118 | 236 | 236 | 118 |
| 1 120 000 | 18   | 224                                            | 190 | 212 | 280 | 190 | 200 | 335 | 300 | 100 | 190 | 335 | 265 | 224 | 236 | 190 | 100 | 118 | 236 | 236 | 45  |
|           | 12,5 | 265                                            | 236 | 250 | 300 | 335 | 355 | 375 | 315 | 280 | 375 | 335 | 280 | 250 | 265 | 300 | 280 | 118 | 236 | 236 | 118 |
|           | 9    | 280                                            | 250 | 265 | 300 | 355 | 375 | 375 | 315 | 375 | 355 | 335 | 300 | 280 | 280 | 300 | 335 | 118 | 236 | 236 | 118 |
| 1 400 000 | 12,5 | 236                                            | 212 | 224 | 280 | 280 | 300 | 355 | 300 | 236 | 355 | 315 | 265 | 236 | 236 | 265 | 236 | 118 | 236 | 236 | 118 |
|           | 9    | 250                                            | 236 | 250 | 280 | 335 | 355 | 335 | 300 | 335 | 335 | 300 | 265 | 250 | 250 | 280 | 315 | 118 | 236 | 236 | 118 |
|           | 6,3  | 265                                            | 250 | 265 | 280 | 315 | 335 | 335 | 300 | 335 | 335 | 300 | 280 | 265 | 265 | 280 | 315 | 118 | 236 | 236 | 118 |
| 1 800 000 | 12,5 | 212                                            | 190 | 200 | 250 | 250 | 250 | 335 | 265 | 190 | 300 | 280 | 236 | 212 | 212 | 250 | 190 | 118 | 236 | 236 | 90  |
|           | 9    | 236                                            | 212 | 224 | 265 | 315 | 335 | 315 | 280 | 300 | 315 | 280 | 250 | 224 | 236 | 265 | 300 | 118 | 236 | 236 | 118 |
|           | 6,3  | 250                                            | 236 | 236 | 265 | 300 | 315 | 315 | 280 | 315 | 300 | 280 | 265 | 250 | 250 | 265 | 300 | 118 | 236 | 236 | 118 |
| 2 240 000 | 12,5 | 190                                            | 170 | 180 | 224 | 200 | 212 | 315 | 250 | 140 | 224 | 265 | 212 | 190 | 190 | 224 | 140 | 118 | 236 | 236 | 60  |
|           | 9    | 212                                            | 190 | 200 | 236 | 280 | 300 | 300 | 250 | 250 | 300 | 265 | 224 | 212 | 212 | 236 | 250 | 118 | 236 | 236 | 118 |
|           | 6,3  | 224                                            | 212 | 212 | 250 | 280 | 300 | 280 | 250 | 280 | 280 | 265 | 236 | 224 | 224 | 236 | 265 | 118 | 236 | 236 | 118 |
| 2 800 000 | 12,5 | 170                                            | 150 | 160 | 212 | 160 | 170 | 265 | 224 | 100 | 180 | 250 | 200 | 170 | 180 | 180 | 100 | 118 | 212 | 236 | 40  |
|           | 9    | 190                                            | 170 | 180 | 224 | 250 | 265 | 280 | 236 | 212 | 280 | 250 | 212 | 190 | 190 | 212 | 212 | 118 | 236 | 236 | 100 |
|           | 6,3  | 200                                            | 190 | 200 | 224 | 265 | 280 | 265 | 236 | 265 | 265 | 250 | 212 | 200 | 200 | 224 | 250 | 118 | 236 | 236 | 118 |
| 3 550 000 | 9    | 170                                            | 160 | 170 | 200 | 224 | 224 | 265 | 212 | 180 | 265 | 224 | 190 | 170 | 180 | 200 | 180 | 118 | 212 | 236 | 80  |
|           | 6,3  | 190                                            | 170 | 180 | 212 | 250 | 265 | 250 | 224 | 250 | 250 | 224 | 200 | 190 | 190 | 212 | 236 | 118 | 224 | 236 | 118 |
| 4 500 000 | 9    | 160                                            | 140 | 150 | 190 | 180 | 190 | 250 | 200 | 140 | 224 | 212 | 170 | 160 | 160 | 180 | 140 | 118 | 190 | 236 | 56  |
|           | 6,3  | 170                                            | 160 | 170 | 190 | 224 | 250 | 236 | 200 | 224 | 236 | 212 | 180 | 170 | 170 | 190 | 212 | 118 | 200 | 236 | 106 |
| 5 600 000 | 9    | 140                                            | 125 | 132 | 170 | 150 | 160 | 236 | 180 | 112 | 180 | 190 | 160 | 140 | 140 | 170 | 112 | 118 | 170 | 236 | 40  |
|           | 6,3  | 160                                            | 140 | 150 | 180 | 212 | 236 | 224 | 190 | 200 | 212 | 190 | 170 | 150 | 160 | 170 | 200 | 118 | 180 | 236 | 85  |
| max       |      | 425 (355 per «piedi corti» - for «short feet») |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 118 | 236 | 236 | 118 |

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

size **63**

| $n_2 \cdot L_h$<br><br>min <sup>-1</sup> · h | $M_2$<br><br>daN · m |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |            |            |            |
|----------------------------------------------|----------------------|------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------------------------------------------------------------------------|------------|------------|------------|
|                                              |                      | 0                                                                                  | 45  | 90  | 135 | 180 | 225 | 270 | 315 | 0   | 45  | 90  | 135 | 180 | 225 | 270 | 315 | → ↓ ←                                                                               | → ↓ ←      | → ↓ ←      | → ↓ ←      |
| <b>450 000</b>                               | 25                   | 450                                                                                | 500 | 530 | 530 | 355 | 375 | 530 | 475 | 450 | 530 | 450 | 425 | 475 | 530 | 530 | 475 | 300                                                                                 | 150        | 150        | 300        |
| <b>560 000</b>                               | 25<br>18             | 425                                                                                | 475 | 530 | 450 | 280 | 300 | 475 | 425 | 375 | 475 | 400 | 375 | 425 | 530 | 530 | 400 | 300                                                                                 | 150        | 150        | 300        |
| <b>710 000</b>                               | 25<br>18             | 375                                                                                | 425 | 500 | 355 | 212 | 224 | 375 | 375 | 315 | 450 | 355 | 335 | 375 | 475 | 500 | 315 | 300                                                                                 | 150        | 150        | 300        |
| <b>900 000</b>                               | 25<br>18<br>12,5     | 355                                                                                | 400 | 475 | 250 | 150 | 150 | 280 | 355 | 250 | 375 | 335 | 300 | 355 | 450 | 400 | 250 | 300                                                                                 | 118        | 150        | 300        |
| <b>1 120 000</b>                             | 25<br>18<br>12,5     | 315                                                                                | 355 | 425 | 160 | 106 | 112 | 180 | 315 | 180 | 300 | 300 | 280 | 315 | 400 | 335 | 190 | 300                                                                                 | 75         | 150        | 300        |
| <b>1 400 000</b>                             | 18<br>12,5<br>9      | 335                                                                                | 375 | 425 | 400 | 280 | 280 | 375 | 335 | 335 | 375 | 335 | 315 | 335 | 425 | 500 | 355 | 300                                                                                 | 150        | 150        | 300        |
| <b>1 800 000</b>                             | 18<br>12,5<br>9      | 315                                                                                | 335 | 400 | 335 | 224 | 224 | 355 | 315 | 300 | 355 | 300 | 280 | 315 | 375 | 425 | 300 | 300                                                                                 | 140        | 150        | 300        |
| <b>2 240 000</b>                             | 18<br>12,5<br>9      | 335                                                                                | 375 | 425 | 400 | 280 | 280 | 375 | 335 | 335 | 375 | 335 | 315 | 335 | 425 | 500 | 355 | 300                                                                                 | 150        | 150        | 300        |
| <b>2 800 000</b>                             | 18<br>12,5<br>9      | 315                                                                                | 335 | 400 | 335 | 224 | 224 | 355 | 315 | 300 | 355 | 300 | 280 | 315 | 375 | 425 | 300 | 300                                                                                 | 140        | 150        | 300        |
| <b>3 550 000</b>                             | 12,5<br>9            | 335                                                                                | 375 | 425 | 400 | 280 | 280 | 375 | 335 | 335 | 375 | 335 | 315 | 335 | 425 | 500 | 355 | 300                                                                                 | 150        | 150        | 300        |
| <b>4 500 000</b>                             | 12,5<br>9            | 280                                                                                | 315 | 375 | 265 | 170 | 180 | 300 | 280 | 236 | 335 | 265 | 250 | 280 | 355 | 375 | 250 | 300                                                                                 | 106        | 150        | 300        |
| <b>5 600 000</b>                             | 12,5<br>9            | 300                                                                                | 335 | 375 | 400 | 315 | 315 | 335 | 315 | 375 | 335 | 300 | 280 | 315 | 355 | 400 | 375 | 300                                                                                 | 150        | 150        | 300        |
| <b>max</b>                                   |                      | <b>530</b>                                                                         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | <b>300</b>                                                                          | <b>150</b> | <b>150</b> | <b>300</b> |

size **64**

| $n_2 \cdot L_h$<br><br>min <sup>-1</sup> · h | $M_2$<br><br>daN · m |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |            |            |            |
|----------------------------------------------|----------------------|--------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------------------------------------------------------|------------|------------|------------|
|                                              |                      | 0                                                                                    | 45  | 90  | 135 | 180 | 225 | 270 | 315 | 0   | 45  | 90  | 135 | 180 | 225 | 270 | 315 | → ↓ ←                                                                                 | → ↓ ←      | → ↓ ←      | → ↓ ←      |
| <b>355 000</b>                               | 35,5                 | 600                                                                                  | 670 | 670 | 670 | 500 | 530 | 670 | 600 | 630 | 670 | 560 | 530 | 600 | 670 | 670 | 670 | 375                                                                                   | 190        | 190        | 375        |
| <b>450 000</b>                               | 35,5<br>25           | 530                                                                                  | 600 | 670 | 600 | 400 | 400 | 600 | 530 | 530 | 600 | 500 | 475 | 530 | 670 | 670 | 530 | 375                                                                                   | 190        | 190        | 375        |
| <b>560 000</b>                               | 35,5<br>25<br>18     | 560                                                                                  | 630 | 670 | 670 | 670 | 670 | 630 | 560 | 670 | 630 | 560 | 530 | 560 | 670 | 670 | 670 | 375                                                                                   | 190        | 190        | 375        |
| <b>710 000</b>                               | 35,5<br>25<br>18     | 475                                                                                  | 530 | 670 | 475 | 300 | 300 | 530 | 475 | 425 | 560 | 450 | 425 | 475 | 630 | 670 | 450 | 375                                                                                   | 190        | 190        | 375        |
| <b>900 000</b>                               | 35,5<br>25<br>18     | 530                                                                                  | 560 | 630 | 670 | 560 | 560 | 530 | 530 | 670 | 600 | 560 | 530 | 530 | 630 | 670 | 670 | 375                                                                                   | 190        | 190        | 375        |
| <b>1 120 000</b>                             | 35,5<br>25<br>18     | 560                                                                                  | 600 | 630 | 670 | 670 | 630 | 600 | 560 | 670 | 600 | 530 | 530 | 560 | 630 | 670 | 670 | 375                                                                                   | 190        | 190        | 375        |
| <b>1 400 000</b>                             | 35,5<br>25<br>18     | 425                                                                                  | 500 | 600 | 355 | 200 | 212 | 400 | 450 | 335 | 500 | 400 | 375 | 450 | 560 | 560 | 355 | 375                                                                                   | 170        | 190        | 375        |
| <b>1 800 000</b>                             | 25<br>18<br>12,5     | 475                                                                                  | 530 | 600 | 670 | 475 | 500 | 530 | 475 | 560 | 530 | 450 | 475 | 500 | 600 | 670 | 600 | 375                                                                                   | 190        | 190        | 375        |
| <b>2 240 000</b>                             | 35,5<br>25<br>18     | 500                                                                                  | 530 | 600 | 630 | 630 | 600 | 560 | 500 | 630 | 560 | 500 | 475 | 500 | 600 | 670 | 670 | 375                                                                                   | 190        | 190        | 375        |
| <b>2 800 000</b>                             | 35,5<br>25<br>18     | 400                                                                                  | 450 | 560 | 224 | 118 | 118 | 250 | 400 | 250 | 400 | 355 | 335 | 400 | 530 | 450 | 265 | 375                                                                                   | 106        | 190        | 375        |
| <b>3 550 000</b>                             | 35,5<br>25<br>18     | 425                                                                                  | 475 | 560 | 560 | 400 | 400 | 500 | 425 | 500 | 500 | 425 | 400 | 450 | 530 | 630 | 500 | 375                                                                                   | 190        | 190        | 375        |
| <b>4 500 000</b>                             | 35,5<br>25<br>18     | 450                                                                                  | 500 | 560 | 600 | 560 | 560 | 500 | 475 | 600 | 500 | 450 | 425 | 475 | 530 | 600 | 630 | 375                                                                                   | 190        | 190        | 375        |
| <b>5 600 000</b>                             | 35,5<br>25<br>18     | 355                                                                                  | 400 | 530 | 190 | 100 | 106 | 125 | 355 | 180 | 300 | 315 | 300 | 355 | 475 | 335 | 180 | 375                                                                                   | 53         | 190        | 375        |
| <b>1 120 000</b>                             | 35,5<br>25<br>18     | 400                                                                                  | 450 | 530 | 475 | 315 | 315 | 450 | 400 | 400 | 450 | 375 | 355 | 400 | 500 | 600 | 425 | 375                                                                                   | 190        | 190        | 375        |
| <b>1 400 000</b>                             | 35,5<br>25<br>18     | 425                                                                                  | 450 | 500 | 560 | 500 | 500 | 450 | 425 | 530 | 475 | 400 | 400 | 425 | 500 | 560 | 560 | 375                                                                                   | 190        | 190        | 375        |
| <b>1 800 000</b>                             | 25<br>18<br>12,5     | 355                                                                                  | 400 | 475 | 400 | 250 | 250 | 400 | 355 | 335 | 425 | 375 | 355 | 400 | 475 | 530 | 355 | 375                                                                                   | 160        | 190        | 375        |
| <b>2 240 000</b>                             | 25<br>18<br>12,5     | 375                                                                                  | 425 | 475 | 530 | 425 | 450 | 425 | 400 | 500 | 425 | 375 | 355 | 400 | 475 | 530 | 500 | 375                                                                                   | 190        | 190        | 375        |
| <b>2 800 000</b>                             | 25<br>18<br>12,5     | 400                                                                                  | 425 | 475 | 500 | 500 | 475 | 425 | 400 | 500 | 450 | 400 | 400 | 425 | 475 | 500 | 530 | 375                                                                                   | 190        | 190        | 375        |
| <b>3 550 000</b>                             | 25<br>18<br>12,5     | 335                                                                                  | 375 | 450 | 300 | 180 | 190 | 335 | 335 | 280 | 375 | 300 | 280 | 335 | 425 | 450 | 280 | 375                                                                                   | 118        | 190        | 375        |
| <b>4 500 000</b>                             | 25<br>18<br>12,5     | 355                                                                                  | 400 | 450 | 500 | 375 | 375 | 400 | 355 | 425 | 400 | 335 | 335 | 355 | 425 | 500 | 450 | 375                                                                                   | 190        | 190        | 375        |
| <b>5 600 000</b>                             | 25<br>18<br>12,5     | 375                                                                                  | 400 | 450 | 475 | 450 | 450 | 400 | 375 | 450 | 400 | 375 | 355 | 375 | 425 | 475 | 500 | 375                                                                                   | 190        | 190        | 375        |
| <b>2 240 000</b>                             | 25<br>18<br>12,5     | 300                                                                                  | 335 | 425 | 200 | 112 | 118 | 224 | 300 | 212 | 335 | 265 | 250 | 300 | 355 | 224 | 375 | 71                                                                                    | 190        | 190        | 375        |
| <b>2 800 000</b>                             | 25<br>18<br>12,5     | 315                                                                                  | 355 | 400 | 425 | 300 | 300 | 355 | 315 | 375 | 355 | 300 | 300 | 315 | 400 | 475 | 375 | 170                                                                                   | 190        | 190        | 375        |
| <b>3 550 000</b>                             | 25<br>18<br>12,5     | 335                                                                                  | 375 | 400 | 425 | 450 | 400 | 375 | 335 | 425 | 375 | 335 | 315 | 355 | 400 | 450 | 450 | 190                                                                                   | 190        | 190        | 375        |
| <b>4 500 000</b>                             | 25<br>18<br>12,5     | 265                                                                                  | 300 | 375 | 170 | 100 | 106 | 118 | 265 | 160 | 250 | 236 | 224 | 265 | 355 | 280 | 160 | 375                                                                                   | 40         | 190        | 335        |
| <b>5 600 000</b>                             | 25<br>18<br>12,5     | 300                                                                                  | 335 | 375 | 355 | 250 | 250 | 335 | 300 | 315 | 335 | 280 | 265 | 300 | 375 | 450 | 315 | 375                                                                                   | 140        | 190        | 355        |
| <b>3 550 000</b>                             | 18<br>12,5           | 315                                                                                  | 335 | 375 | 400 | 400 | 375 | 335 | 315 | 400 | 355 | 300 | 300 | 335 | 375 | 425 | 425 | 375                                                                                   | 190        | 190        | 375        |
| <b>4 500 000</b>                             | 18<br>12,5           | 265                                                                                  | 300 | 355 | 300 | 190 | 200 | 300 | 265 | 265 | 300 | 250 | 236 | 265 | 335 | 400 | 265 | 375                                                                                   | 106        | 190        | 315        |
| <b>5 600 000</b>                             | 18<br>12,5           | 280                                                                                  | 315 | 355 | 375 | 335 | 335 | 315 | 280 | 375 | 315 | 280 | 265 | 300 | 335 | 400 | 400 | 375                                                                                   | 180        | 190        | 335        |
| <b>4 500 000</b>                             | 18<br>12,5           | 236                                                                                  | 280 | 335 | 224 | 132 | 140 | 224 | 236 | 212 | 280 | 224 | 212 | 236 | 315 | 335 | 224 | 375                                                                                   | 75         | 190        | 300        |
| <b>5 600 000</b>                             | 18<br>12,5           | 265                                                                                  | 280 | 335 | 355 | 280 | 300 | 280 | 265 | 335 | 300 | 250 | 236 | 265 | 315 | 355 | 335 | 375                                                                                   | 150        | 190        | 300        |
| <b>5 600 000</b>                             | 18<br>12,5           | 212                                                                                  | 250 | 300 | 140 | 112 | 118 | 150 | 212 | 170 | 250 | 200 | 190 | 212 | 280 | 280 | 170 | 375                                                                                   | 45         | 180        | 265        |
| <b>max</b>                                   |                      | <b>670 (530 per «piedi corti» - for «short feet»)</b>                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | <b>375</b>                                                                            | <b>190</b> | <b>190</b> | <b>375</b> |

1) An axial load of up 0,2 times the value in the table is permissible, simultaneously with the radial load and vice versa. If exceeded consult us.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

80

| $n_2 \cdot L_h$<br>min <sup>-1</sup> · h | $M_2$<br>daN m | $F_{r2}^{(1)}$ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | $F_{a2}^{(1)}$ |     |     |     |
|------------------------------------------|----------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|-----|-----|-----|
|                                          |                | 0              | 45  | 90  | 135 | 180 | 225 | 270 | 315 | 0   | 45  | 90  | 135 | 180 | 225 | 270 | 315 | → ↓ ← ↑        | ↔ ↕ | ↔ ↕ | ↔ ↕ |
| <b>355 000</b>                           | 50             | 800            | 710 | 750 | 800 | 710 | 750 | 800 | 800 | 600 | 800 | 800 | 800 | 750 | 750 | 800 | 600 | 224            | 450 | 450 | 224 |
|                                          | 35,5           | 800            | 710 | 750 | 800 | 800 | 800 | 800 | 800 | 670 | 800 | 800 | 800 | 800 | 800 | 800 | 670 | 224            | 450 | 450 | 224 |
| <b>450 000</b>                           | 50             | 710            | 630 | 670 | 800 | 600 | 630 | 800 | 800 | 475 | 710 | 800 | 750 | 710 | 710 | 750 | 475 | 224            | 450 | 450 | 224 |
|                                          | 35,5           | 750            | 710 | 710 | 800 | 800 | 800 | 800 | 800 | 750 | 800 | 800 | 800 | 750 | 750 | 800 | 750 | 224            | 450 | 450 | 224 |
| <b>560 000</b>                           | 50             | 630            | 560 | 600 | 710 | 500 | 500 | 750 | 800 | 355 | 560 | 800 | 710 | 630 | 630 | 600 | 375 | 224            | 450 | 450 | 224 |
|                                          | 35,5           | 670            | 630 | 670 | 750 | 710 | 750 | 800 | 800 | 630 | 800 | 800 | 750 | 670 | 670 | 750 | 630 | 224            | 450 | 450 | 224 |
| <b>710 000</b>                           | 50             | 600            | 530 | 530 | 600 | 400 | 425 | 670 | 750 | 265 | 450 | 750 | 630 | 560 | 600 | 475 | 280 | 224            | 450 | 450 | 170 |
|                                          | 35,5           | 630            | 560 | 600 | 670 | 630 | 630 | 800 | 750 | 530 | 750 | 750 | 670 | 630 | 630 | 670 | 560 | 224            | 450 | 450 | 224 |
| <b>900 000</b>                           | 50             | 670            | 630 | 630 | 710 | 800 | 800 | 800 | 750 | 750 | 800 | 750 | 710 | 670 | 670 | 710 | 750 | 224            | 450 | 450 | 224 |
|                                          | 35,5           | 670            | 630 | 630 | 710 | 800 | 800 | 800 | 750 | 750 | 800 | 750 | 710 | 670 | 670 | 710 | 750 | 224            | 450 | 450 | 224 |
| <b>1 120 000</b>                         | 50             | 530            | 475 | 500 | 475 | 315 | 335 | 530 | 670 | 180 | 315 | 710 | 600 | 530 | 530 | 335 | 180 | 224            | 450 | 450 | 100 |
|                                          | 35,5           | 560            | 530 | 530 | 600 | 560 | 560 | 750 | 670 | 450 | 630 | 710 | 630 | 560 | 560 | 630 | 450 | 224            | 450 | 450 | 224 |
| <b>1 400 000</b>                         | 50             | 475            | 425 | 450 | 530 | 400 | 400 | 600 | 600 | 300 | 450 | 600 | 530 | 475 | 475 | 300 | 300 | 224            | 450 | 450 | 170 |
|                                          | 35,5           | 500            | 475 | 500 | 560 | 560 | 560 | 670 | 600 | 500 | 630 | 600 | 530 | 500 | 500 | 560 | 500 | 224            | 450 | 450 | 224 |
| <b>1 800 000</b>                         | 50             | 425            | 400 | 400 | 475 | 315 | 335 | 500 | 530 | 224 | 355 | 560 | 475 | 425 | 425 | 375 | 224 | 224            | 450 | 450 | 118 |
|                                          | 35,5           | 475            | 425 | 450 | 530 | 560 | 600 | 600 | 530 | 425 | 560 | 560 | 500 | 475 | 475 | 500 | 425 | 224            | 450 | 450 | 224 |
| <b>2 240 000</b>                         | 50             | 400            | 335 | 355 | 375 | 250 | 265 | 425 | 500 | 150 | 265 | 530 | 450 | 375 | 400 | 280 | 160 | 224            | 400 | 450 | 67  |
|                                          | 35,5           | 425            | 400 | 400 | 475 | 425 | 425 | 560 | 500 | 355 | 500 | 530 | 450 | 425 | 425 | 450 | 355 | 224            | 450 | 450 | 200 |
| <b>2 800 000</b>                         | 50             | 355            | 315 | 335 | 300 | 190 | 200 | 335 | 450 | 75  | 140 | 500 | 400 | 355 | 355 | 160 | 75  | 224            | 375 | 450 | 28  |
|                                          | 35,5           | 280            | 355 | 375 | 425 | 355 | 375 | 500 | 475 | 300 | 425 | 475 | 425 | 375 | 425 | 300 | 300 | 224            | 400 | 450 | 150 |
| <b>3 550 000</b>                         | 50             | 300            | 265 | 265 | 300 | 200 | 212 | 335 | 375 | 140 | 224 | 375 | 315 | 280 | 280 | 250 | 140 | 224            | 300 | 450 | 50  |
|                                          | 35,5           | 315            | 280 | 300 | 335 | 315 | 315 | 425 | 375 | 265 | 375 | 375 | 335 | 315 | 315 | 335 | 265 | 224            | 300 | 450 | 132 |
| max                                      |                | 800            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 224            | 450 | 450 | 224 |

81

|                  |    | $F_{r2}^{(1)}$                                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | $F_{a2}^{(1)}$ |     |     |     |
|------------------|----|--------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------|-----|-----|-----|
|                  |    | 0                                                | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  | → ↓ ← ↑        | ↔ ↕ | ↔ ↕ | ↔ ↕ |
| <b>710 000</b>   | 71 | 1000                                             | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 950  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 950  | —              | 560 | 560 | —   |
|                  | 50 | 1000                                             | 900  | 950  | 1000 | 1000 | 1000 | 1000 | 1000 | 800  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 800  | —              | 560 | 560 | —   |
| <b>900 000</b>   | 71 | 1000                                             | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | —              | 560 | 560 | —   |
|                  | 50 | 1000                                             | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | —              | 560 | 560 | —   |
| <b>1 120 000</b> | 71 | 900                                              | 850  | 850  | 1000 | 950  | 950  | 1000 | 1000 | 600  | 900  | 1000 | 1000 | 900  | 900  | 1000 | 630  | —              | 560 | 560 | —   |
|                  | 50 | 1000                                             | 900  | 950  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | —              | 560 | 560 | —   |
| <b>1 400 000</b> | 71 | 900                                              | 850  | 900  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 900  | 900  | 1000 | 1000 | —              | 560 | 560 | —   |
|                  | 50 | 950                                              | 900  | 950  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 950  | 950  | 1000 | 1000 | —              | 560 | 560 | —   |
| <b>1 800 000</b> | 71 | 900                                              | 850  | 900  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 900  | 900  | 1000 | 1000 | —              | 560 | 560 | —   |
|                  | 50 | 950                                              | 900  | 950  | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 950  | 950  | 1000 | 1000 | —              | 560 | 560 | —   |
| <b>2 240 000</b> | 71 | 800                                              | 710  | 750  | 850  | 900  | 900  | 1000 | 950  | 670  | 950  | 950  | 850  | 750  | 750  | 850  | 670  | —              | 560 | 560 | —   |
|                  | 50 | 800                                              | 750  | 800  | 900  | 1000 | 1000 | 1000 | 950  | 1000 | 1000 | 950  | 850  | 800  | 800  | 850  | 950  | —              | 560 | 560 | —   |
| <b>2 800 000</b> | 71 | 710                                              | 630  | 670  | 800  | 800  | 800  | 1000 | 850  | 560  | 800  | 900  | 800  | 710  | 710  | 800  | 560  | —              | 560 | 560 | —   |
|                  | 50 | 750                                              | 710  | 750  | 800  | 950  | 1000 | 1000 | 850  | 900  | 950  | 900  | 800  | 750  | 750  | 800  | 900  | —              | 560 | 560 | —   |
| <b>3 550 000</b> | 71 | 600                                              | 560  | 560  | 670  | 710  | 710  | 800  | 710  | 630  | 800  | 710  | 630  | 600  | 600  | 670  | 630  | —              | 560 | 560 | —   |
|                  | 50 | 630                                              | 600  | 600  | 670  | 750  | 800  | 800  | 710  | 750  | 750  | 710  | 670  | 630  | 630  | 670  | 710  | —              | 560 | 560 | —   |
| max              |    | 1 000 (800 per «piedi corti» - for «short feet») |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | —              | 560 | 560 | —   |

1) An axial load of up to 0,2 times the value in the table is permissible (for size 81, only if it acts in the direction whose permissible values are given in the table), simultaneously with the radial load and vice versa. If exceeded consult us.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

100

| $n_2 \cdot L_h$<br>min <sup>-1</sup> · h | $M_2$<br>daN m   | $F_{r2}^{(1)}$                                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | $F_{a2}^{(1)}$ |     |     |     |
|------------------------------------------|------------------|----------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------|-----|-----|-----|
|                                          |                  | 0                                                  | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  | UTC 438        |     |     |     |
| 280 000                                  | 100              | 1250                                               | 1250 | 1250 | 1250 | 1000 | 1000 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 710            | 355 | 355 | 710 |
| 355 000                                  | 100              | 1180                                               | 1250 | 1250 | 1180 | 800  | 850  | 1250 | 1180 | 1060 | 1250 | 1120 | 1120 | 1250 | 1250 | 1250 | 1060 | 710            | 355 | 355 | 710 |
| 450 000                                  | 100<br>71        | 1120                                               | 1250 | 1250 | 950  | 630  | 630  | 1060 | 1060 | 850  | 1250 | 1000 | 1000 | 1120 | 1250 | 1250 | 900  | 710            | 355 | 355 | 710 |
| 560 000                                  | 100<br>71<br>50  | 1000                                               | 1120 | 1250 | 750  | 450  | 475  | 800  | 1000 | 710  | 1060 | 950  | 900  | 1000 | 1250 | 1120 | 710  | 710            | 355 | 355 | 710 |
| 710 000                                  | 100<br>71<br>50  | 900                                                | 1000 | 1250 | 530  | 300  | 315  | 600  | 900  | 560  | 850  | 850  | 800  | 900  | 1180 | 950  | 560  | 710            | 265 | 355 | 710 |
| 900 000                                  | 100<br>71<br>50  | 800                                                | 950  | 1120 | 280  | 150  | 150  | 335  | 800  | 400  | 670  | 750  | 710  | 800  | 1060 | 710  | 425  | 710            | 160 | 355 | 710 |
| 1 120 000                                | 100<br>71<br>50  | 750                                                | 850  | 1000 | 375  | 200  | 212  | 425  | 750  | 335  | 530  | 560  | 530  | 600  | 800  | 560  | 335  | 710            | 100 | 355 | 630 |
| 1 400 000                                | 71<br>50<br>35,5 | 600                                                | 670  | 850  | 236  | 125  | 125  | 265  | 600  | 335  | 530  | 560  | 530  | 600  | 800  | 560  | 335  | 710            | 100 | 355 | 630 |
| 1 800 000                                | 71<br>50<br>35,5 | 560                                                | 630  | 750  | 315  | 170  | 170  | 355  | 560  | 335  | 530  | 500  | 475  | 560  | 710  | 600  | 355  | 710            | 112 | 355 | 630 |
| 2 240 000                                | 71<br>50<br>35,5 | 500                                                | 560  | 670  | 375  | 224  | 236  | 425  | 500  | 335  | 530  | 475  | 450  | 500  | 630  | 560  | 335  | 710            | 118 | 355 | 500 |
| 2 800 000                                | 71<br>50<br>35,5 | 450                                                | 500  | 600  | 190  | 106  | 106  | 224  | 450  | 280  | 425  | 425  | 400  | 450  | 560  | 450  | 280  | 710            | 71  | 355 | 450 |
| 3 550 000                                | 50<br>35,5       | 475                                                | 530  | 600  | 560  | 375  | 400  | 530  | 475  | 475  | 530  | 475  | 450  | 500  | 600  | 475  | 475  | 710            | 200 | 355 | 475 |
| max                                      |                  | 1 250 (1 120 per «piedi corti» - for «short feet») |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 710            | 355 | 355 | 710 |

101

| $n_2 \cdot L_h$<br>min <sup>-1</sup> · h | $M_2$<br>daN m   | $F_{r2}^{(1)}$                                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | $F_{a2}^{(1)}$ |   |   |     |
|------------------------------------------|------------------|----------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------|---|---|-----|
|                                          |                  | 0                                                  | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  | UTC 438        |   |   |     |
| 560 000                                  | 140              | 1600                                               | 1600 | 1600 | 1600 | 1250 | 1250 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 900            | — | — | 900 |
| 710 000                                  | 140              | 1600                                               | 1600 | 1600 | 1500 | 950  | 1000 | 1600 | 1600 | 1600 | 1600 | 1500 | 1600 | 1600 | 1600 | 1600 | 1600 | 900            | — | — | 900 |
| 900 000                                  | 140<br>100       | 1500                                               | 1600 | 1600 | 1120 | 710  | 710  | 1250 | 1500 | 1320 | 1600 | 1400 | 1400 | 1500 | 1600 | 1600 | 1320 | 900            | — | — | 900 |
| 1 120 000                                | 140<br>100<br>71 | 1400                                               | 1600 | 1600 | 750  | 450  | 450  | 900  | 1400 | 1120 | 1600 | 1320 | 1250 | 1400 | 1600 | 1600 | 1120 | 900            | — | — | 900 |
| 1 400 000                                | 100<br>71<br>50  | 1400                                               | 1500 | 1600 | 1500 | 1060 | 1120 | 1500 | 1400 | 1500 | 1600 | 1400 | 1400 | 1500 | 1600 | 1600 | 1500 | 900            | — | — | 900 |
| 1 800 000                                | 100<br>71<br>50  | 1250                                               | 1400 | 1600 | 1250 | 850  | 900  | 1400 | 1250 | 1320 | 1400 | 1250 | 1180 | 1250 | 1500 | 1600 | 1320 | 900            | — | — | 900 |
| 2 240 000                                | 100<br>71<br>50  | 1180                                               | 1250 | 1500 | 1000 | 670  | 670  | 1120 | 1180 | 1120 | 1320 | 1180 | 1180 | 1250 | 1400 | 1600 | 1120 | 900            | — | — | 900 |
| 2 800 000                                | 100<br>71<br>50  | 1060                                               | 1180 | 1400 | 750  | 475  | 500  | 850  | 1060 | 950  | 1180 | 1000 | 950  | 1060 | 1320 | 1400 | 950  | 900            | — | — | 900 |
| 3 550 000                                | 71<br>50         | 1060                                               | 1120 | 1250 | 1250 | 1000 | 1060 | 1120 | 1060 | 1180 | 1180 | 1000 | 1000 | 1060 | 1250 | 1400 | 1250 | 900            | — | — | 900 |
| 4 500 000                                | 71<br>50         | 950                                                | 1060 | 1180 | 1060 | 750  | 800  | 1060 | 950  | 1060 | 1060 | 950  | 900  | 1000 | 1180 | 1320 | 1060 | 900            | — | — | 900 |
| 5 600 000                                | 71<br>50         | 900                                                | 1000 | 1120 | 900  | 600  | 630  | 1000 | 900  | 900  | 1000 | 850  | 800  | 900  | 1060 | 1250 | 900  | 900            | — | — | 900 |
| max                                      |                  | 1 600 (1 120 per «piedi corti» - for «short feet») |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 900            | — | — | 900 |

1) An axial load of up to 0,2 times the value in the table is permissible (for size 101, only if it acts in the direction whose permissible values are given in the table), simultaneously with the radial load and vice versa. If exceeded consult us.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

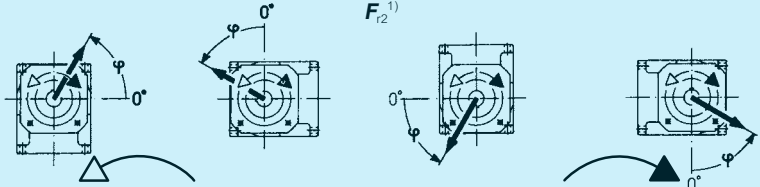
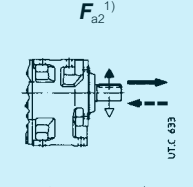
|                                  |       | size 125                                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |       |       |     |
|----------------------------------|-------|----------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-------|-------|-----|
| $n_2 \cdot L_1$                  | $M_2$ |                                                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |       |       |     |
| $\text{min}^{-1} \cdot \text{h}$ | daN m | 0                                                  | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  |     |       |       |     |
| 560 000                          | 200   | 2000                                               | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 1900 | 2000 | 2000 | 2000 | 2000 | 1900 | 1700 | 1700 | 560 | 1120  | 1120  | 560 |
| 710 000                          | 200   | 2000                                               | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 1700 | 1900 | 2000 | 2000 | 2000 | 1700 | 1500 | 1500 | 560 | 1120  | 1120  | 560 |
| 900 000                          | 200   | 2000                                               | 1800 | 1800 | 2000 | 2000 | 2000 | 2000 | 2000 | 1500 | 1700 | 1800 | 2000 | 1900 | 1400 | 1250 | 1320 | 560 | 1120  | 1120  | 560 |
|                                  | 140   | 2000                                               | 1900 | 1900 | 2000 | 2000 | 2000 | 2000 | 2000 | 1800 | 2000 | 2000 | 2000 | 2000 | 1900 | 1700 | 1700 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 2000                                               | 1900 | 1900 | 2000 | 2000 | 2000 | 2000 | 2000 | 1900 | 2000 | 2000 | 2000 | 2000 | 1900 | 1800 | 1800 | 560 | 1120  | 1120  | 560 |
| 1 120 000                        | 200   | 1800                                               | 1600 | 1700 | 1900 | 1900 | 1900 | 2000 | 2000 | 1320 | 1500 | 1600 | 1800 | 1600 | 1180 | 1060 | 1120 | 560 | 1120  | 1120  | 560 |
|                                  | 140   | 1900                                               | 1800 | 1800 | 2000 | 2000 | 2000 | 2000 | 2000 | 1600 | 1800 | 1900 | 2000 | 1900 | 1700 | 1500 | 1500 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 2000                                               | 1900 | 1900 | 2000 | 2000 | 2000 | 2000 | 2000 | 1900 | 2000 | 2000 | 2000 | 2000 | 1900 | 1800 | 1800 | 560 | 1120  | 1120  | 560 |
| 1 400 000                        | 140   | 1800                                               | 1600 | 1700 | 1800 | 2000 | 2000 | 2000 | 2000 | 1500 | 1600 | 1800 | 1900 | 1800 | 1500 | 1320 | 1400 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 1800                                               | 1700 | 1700 | 1900 | 2000 | 2000 | 2000 | 2000 | 1700 | 1800 | 2000 | 1900 | 1800 | 1800 | 1600 | 1600 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1900                                               | 1800 | 1800 | 1900 | 2000 | 2000 | 2000 | 2000 | 1900 | 2000 | 2000 | 1900 | 1900 | 1800 | 1800 | 1800 | 560 | 1120  | 1120  | 560 |
| 1 800 000                        | 140   | 1700                                               | 1500 | 1500 | 1700 | 2000 | 2000 | 2000 | 1900 | 1320 | 1500 | 1600 | 1800 | 1600 | 1320 | 1180 | 1250 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 1700                                               | 1600 | 1600 | 1700 | 1900 | 2000 | 2000 | 1900 | 1600 | 1700 | 1800 | 1800 | 1700 | 1600 | 1500 | 1500 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1800                                               | 1700 | 1700 | 1800 | 1900 | 2000 | 2000 | 1900 | 1700 | 1800 | 1900 | 1800 | 1700 | 1700 | 1700 | 1700 | 560 | 1120  | 1120  | 560 |
| 2 240 000                        | 140   | 1500                                               | 1400 | 1400 | 1600 | 1700 | 1800 | 2000 | 1800 | 1180 | 1320 | 1400 | 1600 | 1500 | 1180 | 1060 | 1060 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 1600                                               | 1500 | 1500 | 1600 | 1800 | 1900 | 1900 | 1800 | 1400 | 1500 | 1600 | 1700 | 1600 | 1500 | 1320 | 1320 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1600                                               | 1500 | 1600 | 1600 | 1800 | 1900 | 1900 | 1700 | 1600 | 1700 | 1800 | 1700 | 1600 | 1600 | 1500 | 1500 | 560 | 1120  | 1120  | 560 |
| 2 800 000                        | 140   | 1400                                               | 1250 | 1250 | 1500 | 1500 | 1600 | 1900 | 1700 | 1060 | 1180 | 1320 | 1500 | 1400 | 1000 | 900  | 950  | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 1500                                               | 1400 | 1400 | 1500 | 1700 | 1800 | 1800 | 1700 | 1250 | 1400 | 1500 | 1600 | 1500 | 1320 | 1180 | 1180 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1500                                               | 1400 | 1400 | 1500 | 1700 | 1800 | 1700 | 1600 | 1400 | 1500 | 1600 | 1600 | 1500 | 1500 | 1400 | 1400 | 560 | 1120  | 1120  | 560 |
| 3 550 000                        | 100   | 1400                                               | 1250 | 1250 | 1400 | 1600 | 1700 | 1700 | 1500 | 1180 | 1250 | 1400 | 1500 | 1320 | 1180 | 1060 | 1060 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1400                                               | 1320 | 1320 | 1400 | 1600 | 1700 | 1600 | 1500 | 1320 | 1400 | 1500 | 1500 | 1400 | 1400 | 1250 | 1250 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 1250                                               | 1180 | 1180 | 1320 | 1500 | 1600 | 1600 | 1400 | 1060 | 1120 | 1250 | 1320 | 1250 | 1060 | 950  | 950  | 560 | 1120  | 1120  | 560 |
| 4 500 000                        | 100   | 1320                                               | 1250 | 1250 | 1320 | 1500 | 1600 | 1500 | 1400 | 1180 | 1250 | 1400 | 1400 | 1250 | 1250 | 1180 | 1120 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1320                                               | 1250 | 1250 | 1320 | 1500 | 1600 | 1500 | 1400 | 1180 | 1250 | 1400 | 1400 | 1250 | 1250 | 1180 | 1120 | 560 | 1120  | 1120  | 560 |
|                                  | 100   | 1180                                               | 1060 | 1060 | 1180 | 1400 | 1400 | 1500 | 1320 | 950  | 1060 | 1120 | 1250 | 1120 | 950  | 850  | 850  | 560 | 1120  | 1120  | 560 |
| 5 600 000                        | 100   | 1180                                               | 1120 | 1120 | 1250 | 1400 | 1500 | 1400 | 1320 | 1120 | 1180 | 1250 | 1250 | 1180 | 1120 | 1060 | 1060 | 560 | 1120  | 1120  | 560 |
|                                  | 71    | 1180                                               | 1120 | 1120 | 1250 | 1400 | 1500 | 1400 | 1320 | 1120 | 1180 | 1250 | 1250 | 1180 | 1120 | 1060 | 1060 | 560 | 1120  | 1120  | 560 |
| max                              |       | 2 000 (1 800 per «piedi corti» - for «short feet») |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 560 | 1 120 | 1 120 | 560 |

| size      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                                    |      | 126  |     |     |       |       |     |
|-----------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------------------|------|------|-----|-----|-------|-------|-----|
| 280 000   | 280 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2240 | 2500 | 2500 | 2500 | 2500 | 2360 | 2000 | 2000 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 355 000   | 280 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2000 | 2360 | 2500 | 2500 | 2500 | 2000 | 1700 | 1800 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 450 000   | 280 | 2500 | 2360 | 2360 | 2500 | 2360 | 2360 | 2500 | 2500 | 1800 | 2000 | 2240 | 2500 | 2360 | 1700 | 1500 | 1500 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 200 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2560 | 2240 | 2500 | 2500 | 2500 | 2500 | 2360 | 2120 | 2120 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 560 000   | 280 | 2360 | 2120 | 2120 | 2500 | 2000 | 2120 | 2500 | 2500 | 1500 | 1800 | 2000 | 2240 | 2000 | 1400 | 1250 | 1320 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 200 | 2500 | 2360 | 2360 | 2500 | 2500 | 2500 | 2500 | 2500 | 2000 | 2240 | 2500 | 2500 | 2500 | 2120 | 1800 | 1800 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 140 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2360 | 2500 | 2500 | 2500 | 2500 | 2500 | 2240 | 2240 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 710 000   | 280 | 2240 | 2000 | 2000 | 2240 | 1700 | 1800 | 2500 | 2500 | 1250 | 1600 | 1700 | 1900 | 1600 | 1120 | 1000 | 1120 | 710                                                | 1400 | 1400 | 670 |     |       |       |     |
|           | 200 | 2360 | 2120 | 2240 | 2500 | 2500 | 2500 | 2500 | 2500 | 1800 | 2000 | 2240 | 2500 | 2360 | 1900 | 1600 | 1600 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 140 | 2500 | 2240 | 2360 | 2500 | 2500 | 2500 | 2500 | 2500 | 2120 | 2360 | 2500 | 2500 | 2360 | 2240 | 2000 | 2120 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 900 000   | 280 | 2000 | 1800 | 1800 | 1900 | 1400 | 1500 | 2240 | 2500 | 900  | 1400 | 1500 | 1500 | 1250 | 850  | 750  | 900  | 710                                                | 1400 | 1400 | 475 |     |       |       |     |
|           | 200 | 2120 | 2000 | 2000 | 2240 | 2120 | 2240 | 2500 | 2500 | 1600 | 1800 | 2000 | 2240 | 2120 | 1600 | 1400 | 1400 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 140 | 2240 | 2120 | 2120 | 2360 | 2500 | 2500 | 2500 | 2500 | 1900 | 2120 | 2240 | 2360 | 2240 | 2000 | 1800 | 1800 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 1 120 000 | 280 | 1900 | 1600 | 1600 | 1600 | 1180 | 1180 | 1900 | 2360 | 630  | 1060 | 1250 | 1180 | 850  | 560  | 530  | 670  | 710                                                | 1400 | 1400 | 315 |     |       |       |     |
|           | 200 | 2000 | 1800 | 1800 | 2120 | 1900 | 1900 | 2500 | 2360 | 1400 | 1600 | 1800 | 2000 | 1900 | 1400 | 1180 | 1250 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 140 | 2120 | 1900 | 2000 | 2120 | 2360 | 2500 | 2500 | 2360 | 1800 | 1900 | 2120 | 2240 | 2120 | 1800 | 1600 | 1600 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 1 400 000 | 200 | 1900 | 1700 | 1700 | 1900 | 1700 | 1700 | 2360 | 2240 | 1250 | 1400 | 1600 | 1800 | 1700 | 1180 | 1000 | 1060 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 140 | 1900 | 1800 | 1800 | 2000 | 2240 | 2240 | 2360 | 2240 | 1600 | 1700 | 1900 | 2120 | 1900 | 1700 | 1500 | 1500 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 100 | 2000 | 1900 | 1900 | 2000 | 2240 | 2360 | 2360 | 2240 | 1800 | 1900 | 2120 | 2120 | 2000 | 1900 | 1800 | 1700 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 1 800 000 | 200 | 1700 | 1500 | 1500 | 1800 | 1400 | 1500 | 2120 | 2120 | 1060 | 1250 | 1400 | 1600 | 1400 | 1000 | 850  | 900  | 710                                                | 1400 | 1400 | 600 |     |       |       |     |
|           | 140 | 1800 | 1700 | 1700 | 1900 | 2000 | 2000 | 2240 | 2120 | 1400 | 1600 | 1800 | 1900 | 1800 | 1500 | 1320 | 1320 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 100 | 1900 | 1800 | 1800 | 1900 | 2120 | 2240 | 2240 | 2000 | 1700 | 1800 | 1900 | 2000 | 1800 | 1800 | 1600 | 1600 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 2 240 000 | 200 | 1600 | 1400 | 1400 | 1600 | 1180 | 1250 | 1800 | 1900 | 800  | 1120 | 1250 | 1320 | 1120 | 750  | 670  | 750  | 710                                                | 1400 | 1400 | 450 |     |       |       |     |
|           | 140 | 1700 | 1500 | 1500 | 1700 | 1700 | 1800 | 2120 | 1900 | 1250 | 1400 | 1600 | 1800 | 1600 | 1320 | 1180 | 1180 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 100 | 1700 | 1600 | 1600 | 1800 | 1900 | 2120 | 2000 | 1900 | 1500 | 1600 | 1800 | 1800 | 1700 | 1600 | 1400 | 1400 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 2 800 000 | 200 | 1500 | 1250 | 1250 | 1320 | 1000 | 1000 | 1600 | 1800 | 630  | 950  | 1060 | 1060 | 850  | 560  | 530  | 600  | 710                                                | 1400 | 1400 | 335 |     |       |       |     |
|           | 140 | 1500 | 1400 | 1400 | 1600 | 1500 | 1600 | 2000 | 1800 | 1120 | 1320 | 1400 | 1600 | 1500 | 1180 | 1000 | 1000 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
|           | 100 | 1600 | 1500 | 1500 | 1600 | 1800 | 1900 | 1900 | 1800 | 1400 | 1500 | 1600 | 1700 | 1600 | 1400 | 1320 | 1250 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 3 550 000 | 140 | 1400 | 1250 | 1320 | 1500 | 1400 | 1400 | 1900 | 1700 | 1000 | 1180 | 1250 | 1500 | 1400 | 1000 | 900  | 900  | 710                                                | 1400 | 1400 | 630 |     |       |       |     |
|           | 100 | 1500 | 1400 | 1400 | 1500 | 1700 | 1800 | 1800 | 1700 | 1250 | 1320 | 1500 | 1600 | 1500 | 1320 | 1180 | 1180 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 4 500 000 | 140 | 1320 | 1180 | 1180 | 1400 | 1180 | 1250 | 1700 | 1600 | 900  | 1060 | 1120 | 1320 | 1180 | 850  | 750  | 800  | 710                                                | 1400 | 1400 | 530 |     |       |       |     |
|           | 100 | 1400 | 1250 | 1250 | 1400 | 1500 | 1600 | 1700 | 1600 | 1120 | 1250 | 1320 | 1500 | 1400 | 1180 | 1060 | 1060 | 710                                                | 1400 | 1400 | 710 |     |       |       |     |
| 5 600 000 | 140 | 1250 | 1060 | 1120 | 1250 | 1000 | 1060 | 1500 | 1500 | 750  | 900  | 1000 | 1120 | 1000 | 710  | 600  | 670  | 710                                                | 1250 | 1400 | 425 |     |       |       |     |
|           | 100 | 1250 | 1180 | 1180 | 1320 | 1400 | 1400 | 1600 | 1500 | 1000 | 1120 | 1250 | 1400 | 1250 | 1060 | 900  | 900  | 710                                                | 1320 | 1400 | 670 |     |       |       |     |
| max       |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2 500 (1 800 per «piedi corti» - for «short feet») |      |      |     | 710 | 1 400 | 1 400 | 710 |



# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

size **140**

| $n_2 \cdot L_1$                  | $M_2$                       | $F_{r2}^{(1)}$                                                                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | $F_{a2}^{(1)}$                                                                      |      |           |  |
|----------------------------------|-----------------------------|------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------------------------------------------------------------------------|------|-----------|--|
|                                  |                             |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |      |           |  |
| $\text{min}^{-1} \cdot \text{h}$ | $\text{daN} \cdot \text{m}$ | 0                                                                                  | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  |  |      |           |  |
| 280 000                          | 400                         | 3150                                                                               | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 2800 | 3150 | 3150 | 3150 | 3150 | 3150 | 3000 | 2650 | 2650                                                                                | 900  | 1800      |  |
|                                  | 280                         | 3150                                                                               | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150                                                                                | 900  | 1800      |  |
|                                  | 200                         | 3150                                                                               | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150                                                                                | 900  | 1800      |  |
| 355 000                          | 400                         | 3150                                                                               | 3000 | 3000 | 3150 | 3150 | 3150 | 3150 | 3150 | 2650 | 3000 | 3150 | 3150 | 3150 | 3150 | 2650 | 2240 | 2240                                                                                | 900  | 1800      |  |
|                                  | 280                         | 3150                                                                               | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3000 | 3000                                                                                | 900  | 1800      |  |
|                                  | 200                         | 3150                                                                               | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150                                                                                | 900  | 1800      |  |
| 450 000                          | 400                         | 3150                                                                               | 2800 | 2800 | 3150 | 3000 | 3000 | 3150 | 3150 | 2240 | 2650 | 3000 | 3150 | 3150 | 2240 | 1900 | 2000 | 900                                                                                 | 1800 |           |  |
|                                  | 280                         | 3150                                                                               | 3000 | 3000 | 3150 | 3150 | 3150 | 3150 | 3150 | 2800 | 3150 | 3150 | 3150 | 3150 | 3150 | 2650 | 2650 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 3150                                                                               | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 3150 | 900                                                                                 | 1800 |           |  |
| 560 000                          | 400                         | 2800                                                                               | 2500 | 2500 | 2800 | 2500 | 2650 | 3150 | 2500 | 1900 | 2360 | 2650 | 3150 | 2800 | 1900 | 1600 | 1700 | 900                                                                                 | 1800 |           |  |
|                                  | 280                         | 3000                                                                               | 2800 | 2800 | 3000 | 3150 | 3150 | 3150 | 3150 | 2500 | 2800 | 3150 | 3150 | 3000 | 2800 | 2360 | 2360 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 3150                                                                               | 3000 | 3000 | 3150 | 3150 | 3150 | 3150 | 3150 | 3000 | 3150 | 3150 | 3150 | 3150 | 3000 | 2800 | 2800 | 900                                                                                 | 1800 |           |  |
| 710 000                          | 400                         | 2650                                                                               | 2360 | 2360 | 2500 | 2240 | 2240 | 3150 | 3150 | 1600 | 2000 | 2360 | 2650 | 2360 | 1600 | 1320 | 1400 | 900                                                                                 | 1800 |           |  |
|                                  | 280                         | 2800                                                                               | 2500 | 2650 | 2800 | 3150 | 3150 | 3150 | 3150 | 2360 | 2650 | 3000 | 3000 | 2800 | 2500 | 2120 | 2120 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 2800                                                                               | 2650 | 2650 | 3000 | 3150 | 3150 | 3150 | 3150 | 2650 | 3000 | 3150 | 3000 | 2800 | 2800 | 2650 | 2650 | 900                                                                                 | 1800 |           |  |
| 900 000                          | 400                         | 2500                                                                               | 2120 | 2120 | 2120 | 1800 | 1900 | 2800 | 3000 | 1180 | 1800 | 2000 | 2240 | 1800 | 1250 | 1060 | 1120 | 900                                                                                 | 1800 |           |  |
|                                  | 280                         | 2650                                                                               | 2360 | 2360 | 2650 | 2800 | 2800 | 3150 | 3000 | 2120 | 2360 | 2650 | 2800 | 2500 | 2240 | 1900 | 1900 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 2650                                                                               | 2500 | 2500 | 2650 | 3000 | 3150 | 3150 | 3000 | 2500 | 2650 | 3000 | 2800 | 2650 | 2650 | 2360 | 2360 | 900                                                                                 | 1800 |           |  |
| 1 120 000                        | 400                         | 2240                                                                               | 1900 | 1900 | 1700 | 1500 | 1500 | 2500 | 2800 | 850  | 1400 | 1700 | 1800 | 1320 | 900  | 750  | 850  | 900                                                                                 | 1800 |           |  |
|                                  | 280                         | 2360                                                                               | 2120 | 2120 | 2360 | 2360 | 2500 | 3150 | 2800 | 1800 | 2120 | 2360 | 2650 | 2360 | 1900 | 1600 | 1600 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 2500                                                                               | 2240 | 2360 | 2500 | 2800 | 3000 | 3000 | 2800 | 2240 | 2500 | 2650 | 2650 | 2500 | 2360 | 2120 | 2120 | 900                                                                                 | 1800 |           |  |
| 1 400 000                        | 280                         | 2240                                                                               | 2000 | 2000 | 2240 | 2120 | 2240 | 2800 | 2650 | 1600 | 1900 | 2120 | 2500 | 2240 | 1600 | 1400 | 1400 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 2360                                                                               | 2120 | 2120 | 2360 | 2650 | 2800 | 2800 | 2650 | 2000 | 2240 | 2500 | 2500 | 2240 | 2120 | 1900 | 1900 | 900                                                                                 | 1800 |           |  |
|                                  | 140                         | 2360                                                                               | 2240 | 2240 | 2360 | 2650 | 2800 | 2800 | 2650 | 2360 | 2500 | 2650 | 2500 | 2360 | 2360 | 2240 | 2240 | 900                                                                                 | 1800 |           |  |
| 1 800 000                        | 280                         | 2000                                                                               | 1800 | 1800 | 2000 | 1800 | 1900 | 2650 | 2500 | 1400 | 1700 | 1900 | 2240 | 2000 | 1400 | 1180 | 1250 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 2120                                                                               | 2000 | 2000 | 2120 | 2500 | 2500 | 2650 | 2500 | 1800 | 2000 | 2240 | 2360 | 2120 | 2000 | 1700 | 1700 | 900                                                                                 | 1800 |           |  |
|                                  | 140                         | 2240                                                                               | 2120 | 2120 | 2240 | 2500 | 2650 | 2650 | 2360 | 2120 | 2240 | 2500 | 2360 | 2240 | 2120 | 2120 | 2000 | 900                                                                                 | 1800 |           |  |
| 2 240 000                        | 280                         | 1900                                                                               | 1600 | 1700 | 1700 | 1600 | 1600 | 2240 | 2240 | 1120 | 1500 | 1700 | 1900 | 1600 | 1120 | 950  | 1000 | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 2000                                                                               | 1800 | 1800 | 2000 | 2240 | 2240 | 2500 | 2240 | 1600 | 1800 | 2000 | 2120 | 2000 | 1700 | 1500 | 1500 | 900                                                                                 | 1800 |           |  |
|                                  | 140                         | 2000                                                                               | 1900 | 1900 | 2000 | 2240 | 2360 | 2360 | 2240 | 1900 | 2120 | 2240 | 2120 | 2000 | 2000 | 1900 | 1800 | 900                                                                                 | 1800 |           |  |
| 2 800 000                        | 280                         | 1700                                                                               | 1500 | 1500 | 1500 | 1320 | 1320 | 2120 | 2120 | 850  | 1250 | 1400 | 1600 | 1320 | 900  | 750  | 850  | 900                                                                                 | 1800 |           |  |
|                                  | 200                         | 1800                                                                               | 1700 | 1700 | 1900 | 1900 | 2000 | 2360 | 2120 | 1500 | 1700 | 1900 | 2000 | 1800 | 1500 | 1320 | 1320 | 900                                                                                 | 1800 |           |  |
|                                  | 140                         | 1900                                                                               | 1800 | 1800 | 1900 | 2120 | 2240 | 2240 | 2120 | 1700 | 1900 | 2120 | 2000 | 1900 | 1800 | 1700 | 1700 | 900                                                                                 | 1800 |           |  |
| 3 550 000                        | 200                         | 1700                                                                               | 1500 | 1500 | 1700 | 1700 | 1800 | 2240 | 2000 | 1320 | 1500 | 1700 | 1900 | 1700 | 1320 | 1120 | 1180 | 900                                                                                 | 1800 |           |  |
|                                  | 140                         | 1800                                                                               | 1600 | 1600 | 1800 | 2000 | 2120 | 2120 | 2000 | 1600 | 1700 | 1900 | 1900 | 1800 | 1700 | 1500 | 1500 | 900                                                                                 | 1800 |           |  |
| 4 500 000                        | 200                         | 1600                                                                               | 1400 | 1400 | 1600 | 1500 | 1500 | 2000 | 1900 | 1120 | 1320 | 1500 | 1700 | 1600 | 1180 | 1000 | 1000 | 900                                                                                 | 1800 |           |  |
|                                  | 140                         | 1600                                                                               | 1500 | 1500 | 1700 | 1900 | 2000 | 2000 | 1800 | 1400 | 1600 | 1800 | 1700 | 1600 | 1500 | 1400 | 1320 | 900                                                                                 | 1800 |           |  |
| 5 600 000                        | 200                         | 1400                                                                               | 1250 | 1250 | 1400 | 1250 | 1320 | 1800 | 1700 | 950  | 1180 | 1320 | 1500 | 1400 | 950  | 800  | 850  | 900                                                                                 | 1700 |           |  |
|                                  | 140                         | 1500                                                                               | 1400 | 1400 | 1500 | 1700 | 1800 | 1900 | 1700 | 1250 | 1400 | 1600 | 1600 | 1500 | 1400 | 1180 | 1180 | 900                                                                                 | 1700 |           |  |
| max                              |                             | 3 150 (2 000 per «piedi corti» - for «short feet»)                                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 900 1 800                                                                           |      | 1 800 900 |  |

1) An axial load of up to 0,2 times the value in the table is permissible, simultaneously with the radial load and vice versa. If exceeded consult us.

2) An unfavourable direction of load can limit  $F_{r2}$  to  $0,9 \cdot F_{r2max}$

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

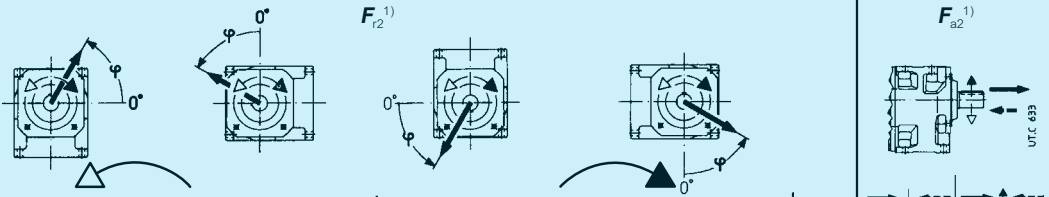
size **160**

| $n_2 \cdot L_n$<br>min <sup>-1</sup> · h | $M_2$<br>daN m | $F_{r2}^{(1)}$                                            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | $F_{a2}^{(1)}$    |                    |         |      |
|------------------------------------------|----------------|-----------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------|--------------------|---------|------|
|                                          |                | 0                                                         | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  | → ↓ ← ↑           |                    | → ↓ ← ↑ |      |
| <b>224 000</b>                           | 560            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 3750 | 3550 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 400            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>280 000</b>                           | 560            | 4000                                                      | 4000 | 4000 | 4000 | 3550 | 3350 | 3150 | 3550 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 400            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>355 000</b>                           | 560            | 4000                                                      | 4000 | 4000 | 3750 | 3350 | 2800 | 2800 | 3150 | 4000 | 4000 | 3750 | 3750 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 400            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 3750 | 3750 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>450 000</b>                           | 560            | 3750                                                      | 4000 | 3550 | 3350 | 2800 | 2500 | 2360 | 2650 | 4000 | 4000 | 3350 | 3350 | 3750 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 400            | 4000                                                      | 4000 | 4000 | 4000 | 3550 | 3350 | 3350 | 3750 | 4000 | 4000 | 3750 | 3750 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 4000                                                      | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>560 000</b>                           | 560            | 3000                                                      | 3550 | 3150 | 3000 | 2500 | 2120 | 1900 | 2240 | 3550 | 3550 | 3150 | 3000 | 3550 | 4000 | 4000 | 3550 | 2240              | 1120               | 1120    | 2240 |
|                                          | 400            | 3550                                                      | 4000 | 4000 | 3550 | 3150 | 3000 | 3000 | 3350 | 4000 | 3750 | 3350 | 3350 | 3750 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 3750                                                      | 4000 | 4000 | 4000 | 3750 | 3550 | 3550 | 3750 | 4000 | 4000 | 3550 | 3550 | 3750 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>710 000</b>                           | 560            | 2500                                                      | 3000 | 2800 | 2650 | 2120 | 1700 | 1600 | 1800 | 3000 | 3150 | 2800 | 2800 | 3150 | 4000 | 4000 | 3000 | 2240              | 1060               | 1120    | 2240 |
|                                          | 400            | 3350                                                      | 3750 | 3550 | 3150 | 2800 | 2650 | 2650 | 3000 | 4000 | 3550 | 3150 | 3150 | 3350 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 3550                                                      | 3750 | 4000 | 3750 | 3350 | 3150 | 3150 | 3550 | 4000 | 3550 | 3350 | 3350 | 3550 | 4000 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>900 000</b>                           | 560            | 1900                                                      | 2360 | 2360 | 2240 | 1600 | 1400 | 1180 | 1320 | 2500 | 2800 | 2500 | 2500 | 3000 | 3750 | 3750 | 2500 | 2240              | 750                | 1120    | 2240 |
|                                          | 400            | 3150                                                      | 3550 | 3150 | 2800 | 2500 | 2240 | 2240 | 2500 | 3750 | 3150 | 2800 | 2800 | 3150 | 3750 | 4000 | 3750 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 3350                                                      | 3550 | 3550 | 3350 | 3150 | 2800 | 3000 | 3150 | 3750 | 3350 | 3150 | 3000 | 3350 | 3750 | 4000 | 4000 | 2240              | 1120               | 1120    | 2240 |
| <b>1 120 000</b>                         | 560            | 1320                                                      | 1800 | 2000 | 1900 | 1180 | 1060 | 850  | 900  | 2000 | 2240 | 2360 | 2240 | 2650 | 3550 | 3350 | 2120 | 2240              | 500                | 1120    | 2240 |
|                                          | 400            | 2800                                                      | 3150 | 2800 | 2650 | 2240 | 2000 | 1900 | 2240 | 3150 | 3000 | 2650 | 2650 | 3000 | 3550 | 4000 | 3350 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 3000                                                      | 3350 | 3350 | 3000 | 2800 | 2650 | 2650 | 3000 | 3550 | 3150 | 2800 | 2800 | 3000 | 3550 | 3750 | 3750 | 2240              | 1120               | 1220    | 2240 |
| <b>1 400 000</b>                         | 400            | 2650                                                      | 2800 | 2500 | 2360 | 2000 | 1700 | 1600 | 1900 | 2800 | 2800 | 2360 | 2360 | 2650 | 3350 | 3750 | 2800 | 2240              | 1120               | 1120    | 2240 |
|                                          | 280            | 2800                                                      | 3000 | 3000 | 2800 | 2500 | 2360 | 2360 | 2650 | 3350 | 3000 | 2650 | 2650 | 2800 | 3350 | 3550 | 3550 | 2240              | 1120               | 1120    | 2240 |
|                                          | 200            | 2800                                                      | 3000 | 3350 | 3000 | 2800 | 2800 | 2800 | 2800 | 3350 | 3000 | 2800 | 2800 | 3000 | 3150 | 3550 | 3550 | 2240              | 1120               | 1120    | 2240 |
| <b>1 800 000</b>                         | 400            | 2120                                                      | 2500 | 2240 | 2000 | 1800 | 1500 | 1400 | 1500 | 2500 | 2500 | 2240 | 2120 | 2500 | 3150 | 3350 | 2500 | 2240              | 950                | 1120    | 2240 |
|                                          | 280            | 2650                                                      | 2800 | 2800 | 2500 | 2240 | 2120 | 2120 | 2360 | 3150 | 2650 | 2360 | 2360 | 2650 | 3000 | 3350 | 3350 | 2240              | 1120               | 1120    | 2240 |
|                                          | 200            | 2650                                                      | 2800 | 3000 | 2800 | 2650 | 2500 | 2500 | 2650 | 3000 | 2800 | 2500 | 2500 | 2800 | 3000 | 3350 | 3350 | 2240              | 1120               | 1120    | 2240 |
| <b>2 240 000</b>                         | 400            | 1700                                                      | 2000 | 1900 | 1800 | 1500 | 1180 | 1060 | 1180 | 2120 | 2240 | 2000 | 2000 | 2240 | 2800 | 3000 | 2120 | 2240              | 710                | 1120    | 2240 |
|                                          | 280            | 2360                                                      | 2650 | 2500 | 2240 | 2000 | 1800 | 1800 | 2120 | 2800 | 2500 | 2240 | 2240 | 2360 | 2800 | 3150 | 3000 | 2240              | 1120               | 1120    | 2240 |
|                                          | 200            | 2500                                                      | 2650 | 2800 | 2500 | 2360 | 2240 | 2240 | 2500 | 2800 | 2500 | 2360 | 2360 | 2500 | 2800 | 3000 | 3000 | 2240              | 1120               | 1120    | 2240 |
| <b>2 800 000</b>                         | 400            | 1320                                                      | 1700 | 1700 | 1600 | 1120 | 950  | 850  | 900  | 1700 | 1900 | 1800 | 1800 | 2120 | 2650 | 2650 | 1800 | 2240              | 530                | 1120    | 2240 |
|                                          | 100            | 2240                                                      | 2500 | 2000 | 2240 | 1800 | 1600 | 1600 | 1800 | 2650 | 2360 | 2000 | 2000 | 2240 | 2650 | 3000 | 2650 | 2240              | 1120               | 1120    | 2240 |
|                                          | 200            | 2360                                                      | 2500 | 2500 | 2360 | 2120 | 2000 | 2000 | 2240 | 2650 | 2360 | 2120 | 2120 | 2360 | 2650 | 2800 | 2800 | 2240              | 1120               | 1120    | 2240 |
| <b>3 550 000</b>                         | 280            | 2000                                                      | 2240 | 2000 | 1900 | 1600 | 1400 | 1400 | 1600 | 2360 | 2120 | 1900 | 1900 | 2120 | 2800 | 2800 | 2360 | 2240              | 1000               | 1120    | 2240 |
|                                          | 200            | 2120                                                      | 2360 | 2360 | 2120 | 2000 | 1800 | 1900 | 2120 | 2500 | 2240 | 2000 | 2000 | 2120 | 2500 | 2650 | 2800 | 2240              | 1120               | 1120    | 2240 |
|                                          |                |                                                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                   |                    |         |      |
| <b>4 500 000</b>                         | 280            | 1900                                                      | 2000 | 1800 | 1600 | 1400 | 1250 | 1180 | 1320 | 2000 | 2000 | 1700 | 1700 | 1900 | 2360 | 2650 | 2120 | 2240              | 850                | 1120    | 2240 |
|                                          | 200            | 2000                                                      | 2120 | 2120 | 2000 | 1800 | 1700 | 1600 | 1900 | 2360 | 2000 | 1900 | 1800 | 2000 | 2360 | 2500 | 2500 | 2240              | 1120               | 1200    | 2240 |
|                                          |                |                                                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                   |                    |         |      |
| <b>5 600 000</b>                         | 280            | 1500                                                      | 1700 | 1600 | 1500 | 1250 | 1060 | 950  | 1120 | 1800 | 1800 | 1600 | 1500 | 1800 | 2120 | 2360 | 1800 | 2240              | 670                | 1120    | 2000 |
|                                          | 200            | 1800                                                      | 2000 | 1900 | 1800 | 1600 | 1500 | 1500 | 1700 | 2240 | 1900 | 1700 | 1700 | 1900 | 2120 | 2360 | 2360 | 2240              | 1120               | 1120    | 2120 |
|                                          |                |                                                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                   |                    |         |      |
| max                                      |                | <b>4 000 (2 800 per «piedi corti» - for «short feet»)</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | <b>2 240 1120</b> | <b>1 120 2 240</b> |         |      |

1) An axial load of up 0,2 times the value in the table is permissible, simultaneously with the radial load and vice versa. If exceeded consult us.

# Radial $F_{r2}$ [daN] or axial loads $F_{a2}$ [daN] on low speed shaft end 3.12

size **180**

| $n_2 \cdot L_1$<br>min <sup>-1</sup> · h | $M_2$<br>daN m |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                     |       |
|------------------------------------------|----------------|------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------|-------|
|                                          |                | 0                                                                                  | 45   | 90   | 135  | 180  | 225  | 270  | 315  | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  | → ↓ ←               | ↑ ↓ ← |
| 224 000                                  | 800            | 5000                                                                               | 5000 | 5000 | 5000 | 4500 | 4000 | 4000 | 4750 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 560            | 5000                                                                               | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 400            | 5000                                                                               | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
| 280 000                                  | 800            | 5000                                                                               | 5000 | 5000 | 4500 | 4000 | 3550 | 3550 | 4000 | 5000 | 5000 | 4750 | 4750 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 560            | 5000                                                                               | 5000 | 5000 | 5000 | 5000 | 5000 | 4500 | 4750 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 400            | 5000                                                                               | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
| 355 000                                  | 800            | 4750                                                                               | 5000 | 4750 | 4000 | 3550 | 3000 | 3000 | 3550 | 4500 | 5000 | 4250 | 4250 | 5000 | 5000 | 5000 | 4750 | 2800                | 1400  |
|                                          | 560            | 5000                                                                               | 5000 | 5000 | 5000 | 4500 | 4250 | 4250 | 4750 | 5000 | 5000 | 4750 | 4750 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 400            | 5000                                                                               | 5000 | 5000 | 5000 | 5000 | 4750 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 2800                | 1400  |
| 450 000                                  | 800            | 4250                                                                               | 4750 | 4000 | 3550 | 3000 | 2650 | 2500 | 3000 | 4000 | 4500 | 4000 | 4000 | 4500 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 560            | 4750                                                                               | 5000 | 5000 | 4500 | 4000 | 3750 | 3750 | 4250 | 5000 | 4750 | 4250 | 4250 | 4750 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 400            | 4750                                                                               | 5000 | 5000 | 5000 | 4500 | 4250 | 4500 | 4750 | 5000 | 4750 | 4500 | 4500 | 4750 | 5000 | 5000 | 5000 | 2800                | 1400  |
| 560 000                                  | 800            | 3350                                                                               | 4000 | 3550 | 3150 | 2240 | 2120 | 2000 | 2360 | 3350 | 4000 | 3550 | 3550 | 4250 | 5000 | 5000 | 3350 | 2800                | 1400  |
|                                          | 560            | 4250                                                                               | 4750 | 4500 | 4000 | 3550 | 3350 | 3350 | 3750 | 5000 | 4500 | 4000 | 4000 | 4250 | 5000 | 5000 | 5000 | 2800                | 1400  |
|                                          | 400            | 4500                                                                               | 4750 | 5000 | 4500 | 4250 | 4000 | 4000 | 4250 | 5000 | 4500 | 4250 | 4250 | 4500 | 5000 | 5000 | 5000 | 2800                | 1400  |
| 710 000                                  | 800            | 2800                                                                               | 3350 | 3150 | 2800 | 1700 | 1800 | 1600 | 1900 | 2800 | 3350 | 3350 | 3350 | 3750 | 4750 | 4500 | 2800 | 2800                | 1180  |
|                                          | 560            | 4000                                                                               | 4500 | 4000 | 3550 | 3150 | 2800 | 2800 | 3350 | 4250 | 4000 | 3750 | 3750 | 4000 | 4750 | 5000 | 4500 | 2800                | 1400  |
|                                          | 400            | 4250                                                                               | 4500 | 4500 | 4250 | 3750 | 3550 | 3750 | 4000 | 4750 | 4250 | 4000 | 4000 | 4250 | 4750 | 5000 | 5000 | 2800                | 1400  |
| 900 000                                  | 800            | 2000                                                                               | 2650 | 2650 | 2000 | 1180 | 1180 | 1180 | 1320 | 2240 | 2800 | 3000 | 3000 | 3550 | 4500 | 3750 | 2240 | 2800                | 850   |
|                                          | 560            | 3750                                                                               | 4000 | 3750 | 3350 | 2800 | 2500 | 2500 | 3000 | 3750 | 3750 | 3350 | 3350 | 3750 | 4500 | 5000 | 3750 | 2800                | 1400  |
|                                          | 400            | 3750                                                                               | 4000 | 4250 | 3750 | 3350 | 3150 | 3350 | 3750 | 4250 | 4000 | 3550 | 3550 | 4000 | 4250 | 4750 | 4750 | 2800                | 1400  |
| 1 120 000                                | 800            | 1250                                                                               | 2000 | 2120 | 1180 | 630  | 670  | 750  | 800  | 1700 | 2240 | 2650 | 2650 | 3150 | 4000 | 3000 | 1700 | 2800                | 500   |
|                                          | 560            | 3350                                                                               | 3750 | 3350 | 2800 | 2500 | 2120 | 2120 | 2500 | 3350 | 3550 | 3000 | 3000 | 3350 | 4000 | 4500 | 3350 | 2800                | 1400  |
|                                          | 400            | 3550                                                                               | 3750 | 3750 | 3350 | 3150 | 2800 | 3000 | 3350 | 4000 | 3550 | 3350 | 3350 | 3550 | 4000 | 4500 | 4500 | 2800                | 1400  |
| 1 400 000                                | 560            | 3000                                                                               | 3350 | 3000 | 2650 | 2120 | 1900 | 1800 | 2120 | 2800 | 3150 | 2800 | 2800 | 3150 | 3750 | 4000 | 3000 | 2800                | 1400  |
|                                          | 400            | 3350                                                                               | 3550 | 3550 | 3150 | 2800 | 2650 | 2650 | 3000 | 3750 | 3350 | 3000 | 3000 | 3350 | 3750 | 4250 | 4000 | 2800                | 1400  |
|                                          | 280            | 3350                                                                               | 3550 | 3750 | 3550 | 3350 | 3150 | 3150 | 3350 | 3750 | 3350 | 3150 | 3150 | 3350 | 3750 | 4000 | 4000 | 2800                | 1400  |
| 1 800 000                                | 560            | 2500                                                                               | 3000 | 2650 | 2240 | 1700 | 1600 | 1500 | 1700 | 2360 | 2800 | 2650 | 2650 | 3000 | 3550 | 3750 | 2500 | 2800                | 1120  |
|                                          | 400            | 3000                                                                               | 3350 | 3150 | 2800 | 2500 | 2360 | 2360 | 2650 | 3550 | 3150 | 2800 | 2800 | 3150 | 3550 | 4000 | 3550 | 2800                | 1400  |
|                                          | 280            | 3150                                                                               | 3350 | 3550 | 3150 | 3000 | 2800 | 2800 | 3150 | 3550 | 3150 | 3000 | 3000 | 3150 | 3550 | 3750 | 3750 | 2800                | 1400  |
| 2 240 000                                | 560            | 2000                                                                               | 2360 | 2240 | 2000 | 1250 | 1250 | 1120 | 1320 | 2000 | 2360 | 2360 | 2360 | 2650 | 3350 | 3150 | 2000 | 2800                | 850   |
|                                          | 400            | 2800                                                                               | 3150 | 2800 | 2500 | 2240 | 2000 | 2000 | 2360 | 3000 | 2800 | 2650 | 2500 | 2800 | 3350 | 3750 | 3150 | 2800                | 1400  |
|                                          | 280            | 3000                                                                               | 3150 | 3150 | 3000 | 2650 | 2500 | 2650 | 2800 | 3350 | 3000 | 2800 | 2800 | 3000 | 3350 | 3550 | 3550 | 2800                | 1400  |
| 2 800 000                                | 560            | 1500                                                                               | 1900 | 1900 | 1500 | 850  | 900  | 850  | 1000 | 1600 | 2000 | 2120 | 2120 | 2500 | 3150 | 2650 | 1700 | 2800                | 630   |
|                                          | 400            | 2650                                                                               | 2800 | 2650 | 2240 | 2000 | 1800 | 1700 | 2000 | 2650 | 2650 | 2360 | 2360 | 2650 | 3150 | 3550 | 2650 | 2800                | 1400  |
|                                          | 280            | 2650                                                                               | 3000 | 3000 | 2650 | 2500 | 2240 | 2360 | 2650 | 3150 | 2800 | 2500 | 2500 | 2800 | 3150 | 3350 | 3350 | 2800                | 1400  |
| 3 550 000                                | 400            | 2360                                                                               | 2650 | 2360 | 2000 | 1800 | 1500 | 1500 | 1800 | 2360 | 2500 | 2120 | 2120 | 2500 | 3000 | 3150 | 2360 | 2800                | 1180  |
|                                          | 280            | 2500                                                                               | 2800 | 2800 | 2500 | 2240 | 2120 | 2120 | 2360 | 2800 | 2500 | 2360 | 2360 | 2500 | 2800 | 3150 | 3150 | 2800                | 1400  |
| 4 500 000                                | 400            | 2120                                                                               | 2360 | 2000 | 1800 | 1500 | 1320 | 1250 | 1500 | 2000 | 2240 | 2000 | 2000 | 2240 | 2800 | 3000 | 2000 | 2800                | 1000  |
|                                          | 280            | 2360                                                                               | 2500 | 2500 | 2240 | 2000 | 1800 | 1900 | 2120 | 2650 | 2360 | 2120 | 2120 | 2360 | 2650 | 3000 | 2800 | 2800                | 1400  |
| 5 600 000                                | 400            | 1700                                                                               | 2000 | 1800 | 1600 | 1120 | 1060 | 1000 | 1180 | 1700 | 2000 | 1800 | 1800 | 2120 | 2500 | 2500 | 1700 | 2800                | 800   |
|                                          | 280            | 2120                                                                               | 2360 | 2240 | 2000 | 1800 | 1600 | 1600 | 1900 | 2500 | 2240 | 2000 | 2000 | 2240 | 2500 | 2800 | 2500 | 2800                | 1400  |
| max                                      |                | 5 000 (3 150 per «piedi corti» - for «short feet»)                                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2800 1400 1400 2800 |       |

- 1) An axial load of up to 0,2 times the value in the table is permissible, simultaneously with the radial load and vice versa. If exceeded consult us.  
 2) An unfavourable direction of load can limit  $F_{r2}$  to  $0,9 \cdot F_{r2max}$

## Efficiency $\eta$ :

— gear reducer with 2 gear pairs (2l) 0,96, with 3 gear pairs (3l) 0,94; for  $M_2 \ll M_{N2}$ ,  $\eta$  could considerably decrease; consult us.

## Overloads

Where a gear reducer is subjected to high static and dynamic overloads, the need arises for verifying that such overloads will always remain lower than  $2 \cdot M_{N2}$  (see ch. 3.5; see ch. 3.7 where  $M_{N2} = M_2 \cdot fs$ ).

Overloads are normally generated when one has:

- starting on full load (especially for high inertias and low transmission ratios), braking, shocks;
- gear reducers in which the low speed shaft becomes driving member due to driven machine inertia;
- applied power higher than that required; other static or dynamic causes.

The following general observations on overloads are accompanied by some formulae for carrying out evaluations in certain typical instances.

Where no evaluation is possible, install safety devices which will keep values within  $2 \cdot M_{N2}$ .

## Starting torque

When starting on full load (especially for high inertias and low transmission ratios) verify that  $2 \cdot M_{N2}$  is equal to or greater than starting torque, by using the following formula:

$$M_2 \text{ start} = \left( \frac{M_{\text{start}}}{M_N} \cdot M_2 \text{ available} - M_2 \text{ required} \right) \frac{J}{J + J_0} + M_2 \text{ required}$$

where:

$M_2$  required is torque absorbed by the machine through work and frictions;

$M_2$  available is output torque due to the motor's nominal power;

$J_0$  is the moment of inertia (of mass) of the motor;

$J$  is the external moment of inertia (of mass) in kg m<sup>2</sup> (gear reducers, couplings, driven machine) referred to the motor shaft;

for other symbols see ch. 2b.

NOTE: when seeking to verify that starting torque is sufficiently high for starting, take into account starting friction, if any, in evaluating  $M_2$  required.

## Stopping machines with high kinetic energy (high moments of inertia combined with high speeds) with brake motor

Verify braking stress by means of the formula:

$$\left( \frac{Mf}{\eta} \cdot i + M_2 \text{ required} \right) \frac{J}{J + J_0} - M_2 \text{ required} \leq 2 \cdot M_{N2}$$

where:

$Mf$  is the braking torque setting (see table in ch. 2b); for other symbols see above and ch. 1.

## Operation with brake motor

### Starting time $t_a$ and revolutions of motor $\varphi_{a1}$

$$t_a = \frac{(J_0 + J) \cdot n_1}{95,5 \left( M_{\text{start}} - \frac{M_2 \text{ required}}{i} \right)} \text{ [s];} \quad \varphi_{a1} = \frac{t_a \cdot n_1}{19,1} \text{ [rad]}$$

### Braking time $t_f$ and revolutions of motor $\varphi_{f1}$

$$t_f = \frac{(J_0 + J) \cdot n_1}{95,5 \left( Mf + \frac{M_2 \text{ required}}{i} \right)} \text{ [s];} \quad \varphi_{f1} = \frac{t_f \cdot n_1}{19,1} \text{ [rad]}$$

where:

$M_{\text{start}}$  [daN m] is motor starting torque  $\left( \frac{955 \cdot P_1}{n_1} \cdot \frac{M_{\text{start}}}{M_N} \right)$  (see ch. 2b);

$Mf$  [daN m] is the braking torque setting of the motor (see ch. 2b);

for other symbols see above and ch. 1.

Assuming a regular air-gap and ambient humidity, and utilizing suitable electrical equipment, repetition of the braking action, as affected by variation in temperature of the brake and by the state of wear of friction surface, is approx  $\pm 0,1 \cdot \varphi_{f1}$ .

## Duration of friction surface

As a rough guide, the number of applications permissible between successive adjustments of the air-gap is given by the formula:

$$\frac{W \cdot 10^5}{Mf \cdot \varphi_{f1}}$$

where:

$W$  [MJ] is the work of friction between successive adjustments of the airgap as indicated in the table; for other symbols see above.

The air-gap should measure between 0,25 minimum and 0,6 maximum; as a rule, 5 adjustments can be made.

| Grandezza motore<br>Motor size | W<br>MJ |
|--------------------------------|---------|
| 63                             | 10,6    |
| 71                             | 14      |
| 80                             | 18      |
| 90                             | 24      |
| 100                            | 24      |
| 112                            | 45      |
| 132                            | 67      |
| 160, 180M                      | 90      |
| 180L, 200                      | 125     |

## Low speed shaft angular backlash and torsional stiffness

**A rough guide** for the angular backlash (high speed shaft being locked) is given in the table. Values vary according to temperature and transmission ratio.

Also the **approx.** values for low speed shaft torsional stiffness — high speed shaft being locked — are given in the table according to the train of gears.

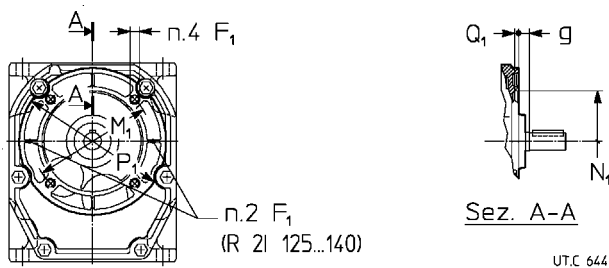
On request it is possible to supply gear reducers with **reduced backlash** (sizes 32 ... 41 excluded) lower than or equal to the minimum values stated on the table.

1) At the distance of 1 m from the low speed shaft centre, angular backlash in mm is obtained by multiplying the value stated in the table by 1 000 (1 rad = 3438').

| Grandezza riduttore<br>Gear reducer size | Gioco angolare [rad] <sup>1)</sup><br>Angular backlash [rad] <sup>1)</sup> |        | Rigidezza torsionale [N m/°]<br>Torsional stiffness [N m/°] |          |
|------------------------------------------|----------------------------------------------------------------------------|--------|-------------------------------------------------------------|----------|
|                                          | min                                                                        | max    | R, MR 2I                                                    | R, MR 3I |
| <b>32</b>                                | 0,0050                                                                     | 0,0100 | 1,6                                                         | 0,9      |
| <b>40</b>                                | 0,0045                                                                     | 0,0090 | 3,15                                                        | 1,8      |
| <b>41</b>                                | 0,0045                                                                     | 0,0090 | 3,55                                                        | 2        |
| <b>50</b>                                | 0,0036                                                                     | 0,0071 | 7,5                                                         | 4,3      |
| <b>51</b>                                | 0,0036                                                                     | 0,0071 | 8,5                                                         | 4,8      |
| <b>63</b>                                | 0,0032                                                                     | 0,0063 | 15                                                          | 8,5      |
| <b>64</b>                                | 0,0032                                                                     | 0,0063 | 17                                                          | 9,5      |
| <b>80</b>                                | 0,0028                                                                     | 0,0056 | 30                                                          | 17       |
| <b>81</b>                                | 0,0028                                                                     | 0,0056 | 33,5                                                        | 19       |
| <b>100</b>                               | 0,0023                                                                     | 0,0050 | 60                                                          | 33,5     |
| <b>101</b>                               | 0,0025                                                                     | 0,0050 | 67                                                          | 37,5     |
| <b>125</b>                               | 0,0022                                                                     | 0,0044 | 118                                                         | 67       |
| <b>126</b>                               | 0,0022                                                                     | 0,0044 | 132                                                         | 75       |
| <b>140</b>                               | 0,0022                                                                     | 0,0044 | 150                                                         | 85       |
| <b>160</b>                               | 0,0020                                                                     | 0,0040 | 236                                                         | 132      |
| <b>180</b>                               | 0,0020                                                                     | 0,0040 | 335                                                         | 190      |

## Gear reducers input face

The input face of gear reducers (size  $\geq 50$ ) has a flange with tapped holes and «hole» centering for eventual fitting of motor support, etc. The use of threaded holes closed with dowel, if any, requires the removal of dowel (avoiding eventual oil loss) and the readjustment of sealant.



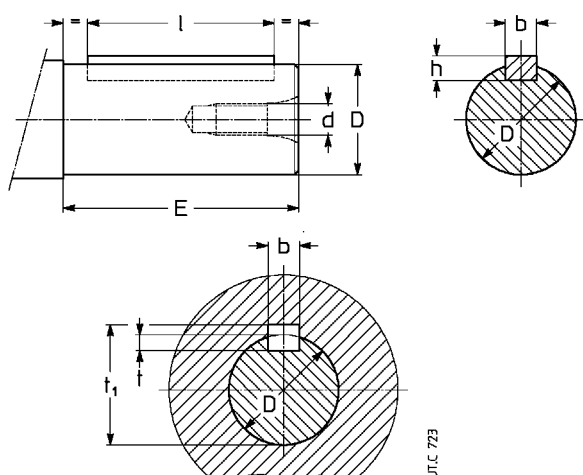
| Grand. riduttore<br>Gear reducer size | F <sub>1</sub><br>1) | g<br>≈           | M <sub>1</sub><br>Ø | N <sub>1</sub><br>Ø<br>H7 | P <sub>1</sub><br>Ø | Q <sub>1</sub> |
|---------------------------------------|----------------------|------------------|---------------------|---------------------------|---------------------|----------------|
| <b>50, 51</b>                         | M 8                  | 9,5              | 115 <sup>2)</sup>   | 95                        | 140                 | 4              |
| <b>63, 64</b>                         | M 8                  | 10               | 130                 | 110                       | 160                 | 4,5            |
| <b>80, 81</b>                         | M 10                 | 10,5             | 165                 | 130                       | 200                 | 4,5            |
| <b>100, 101</b>                       | M 12                 | 11               | 215                 | 180                       | 250                 | 5              |
| <b>125, 126, 140</b>                  | M 12 <sup>6)</sup>   | 14 <sup>3)</sup> | 265                 | 230                       | 300                 | 5              |
| <b>160, 180</b>                       | M 16                 | 19 <sup>3)</sup> | 350                 | 300                       | 400                 | 6              |

1) Working length of thread 1,05 F<sub>1</sub>, 1,5 F<sub>1</sub> for R 2I 125 ... 180.

2) The two upper holes are on a diameter M<sub>1</sub> of 130 mm: consult us.

3) For R 3I g dimension is -4 mm (sizes 125 ... 140), -6 mm (sizes 160 and 180).

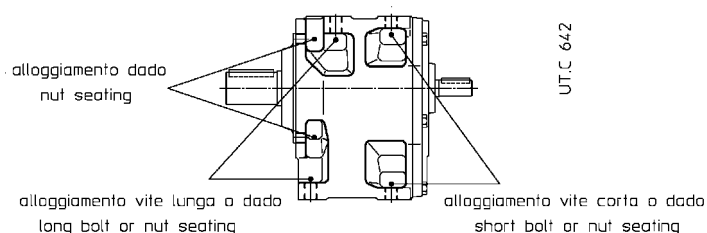
## Shaft end



1) Values in brackets are for short shaft end.

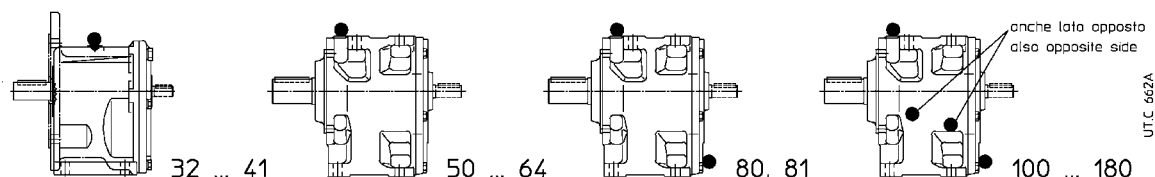
| Estremità d'albero<br>Shaft end |                 |        | Linguetta<br>Parallel key |  | Cava<br>Keyway |     |                |
|---------------------------------|-----------------|--------|---------------------------|--|----------------|-----|----------------|
| D<br>Ø                          | E <sup>1)</sup> | d<br>Ø | b × h × l <sup>1)</sup>   |  | b              | t   | t <sub>1</sub> |
| <b>11</b> j6                    | 23 (20)         | M 5    | 4 × 4 × 18 (12)           |  | 4              | 2,5 | 12,7           |
| <b>14</b> j6                    | 30              | M 6    | 5 × 5 × 25                |  | 5              | 3   | 16,2           |
| <b>16</b> j6                    | 30              | M 6    | 5 × 5 × 25                |  | 5              | 3   | 18,2           |
| <b>19</b> j6                    | 40              | M 6    | 6 × 6 × 36                |  | 6              | 3,5 | 21,7           |
| <b>24</b> j6                    | 50 (36)         | M 8    | 8 × 7 × 45 (25)           |  | 8              | 4   | 27,2           |
| <b>28</b> j6                    | 60 (42)         | M 8    | 8 × 7 × 45 (36)           |  | 8              | 4   | 31,2           |
| <b>32</b> k6                    | 80 (58)         | M 10   | 10 × 8 × 70 (50)          |  | 10             | 5   | 35,3           |
| <b>38</b> k6                    | 80 (58)         | M 10   | 10 × 8 × 70 (50)          |  | 10             | 5   | 41,3           |
| <b>42</b> k6                    | 110             | M 12   | 12 × 8 × 90               |  | 12             | 5   | 45,3           |
| <b>45</b> k6                    | 82              | M 12   | 14 × 9 × 70               |  | 14             | 5,5 | 48,8           |
| <b>48</b> k6                    | 82 (80)         | M 12   | 14 × 9 × 70               |  | 14             | 5,5 | 51,8           |
| <b>55</b> m6                    | 82              | M 12   | 16 × 10 × 70              |  | 16             | 6   | 59,3           |
| <b>60</b> m6                    | 105             | M 16   | 18 × 11 × 90              |  | 18             | 7   | 64,4           |
| <b>70</b> m6                    | 105             | M 16   | 20 × 12 × 90              |  | 20             | 7,5 | 74,9           |
| <b>80</b> m6                    | 130             | M 20   | 22 × 14 × 110             |  | 22             | 9   | 85,4           |
| <b>90</b> m6                    | 130             | M 20   | 25 × 14 × 110             |  | 25             | 9   | 95,4           |
| <b>100</b> m6                   | 165             | M 24   | 28 × 16 × 140             |  | 28             | 10  | 106,4          |

## Fixing bolt dimensions for gear reducer feet



| Grandezza riduttore<br>Gear reducer size | Vite corta<br>Short bolt | Vite lunga<br>Long bolt |
|------------------------------------------|--------------------------|-------------------------|
|                                          | UNI 5737-88<br>(l max)   |                         |
| <b>50, 51</b>                            | M 10 × 30                | M 10 × 35               |
| <b>63, 64</b>                            | M 12 × 35                | M 12 × 40               |
| <b>80, 81</b>                            | M 14 × 40                | M 14 × 50               |
| <b>100, 101</b>                          | M 16 × 50                | M 16 × 60               |
| <b>125, 126, 140</b>                     | M 20 × 60                | M 20 × 70               |
| <b>160, 180</b>                          | M 24 × 70                | M 24 × 90               |

## Plug position



## Maximum bending moment of flange MR

In case of assembly of motors supplied by the customer, verify that the static bending moment  $M_b$  generated by motor weight on the counter flange of gear reducer is lower than the value allowed  $M_{bmax}$ , stated in the table:

$$M_b \leq M_{bmax}$$

where:

$$M_b = G \cdot (X + HF) / 1000 \text{ [daN m]}$$

G [daN] motor weight; numerically nearly equal to motor mass, expressed in kg

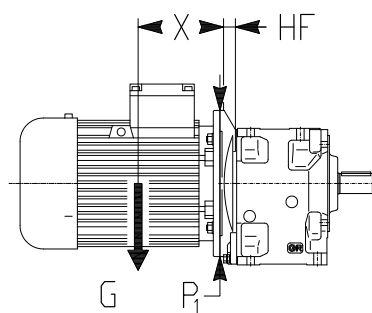
X [mm] distance from motor center of gravity from flange surface

HF [mm] given in the table, according to gear reducer size and flange diameter  $P_1$ .

Very long and thin motors, though with bending moments within the prescribed limits, may generate anomalous vibrations during the operation. In these cases it is necessary to foresee a proper additional motor support (see motor specific documentation).

**Loads higher than permissible loads may be present in dynamical applications** where the gearmotor is subjected to translations, rotations or oscillations: consult us for the study of every specific case

## Max allowable bending moment $M_{bmax}$ and HF dimension

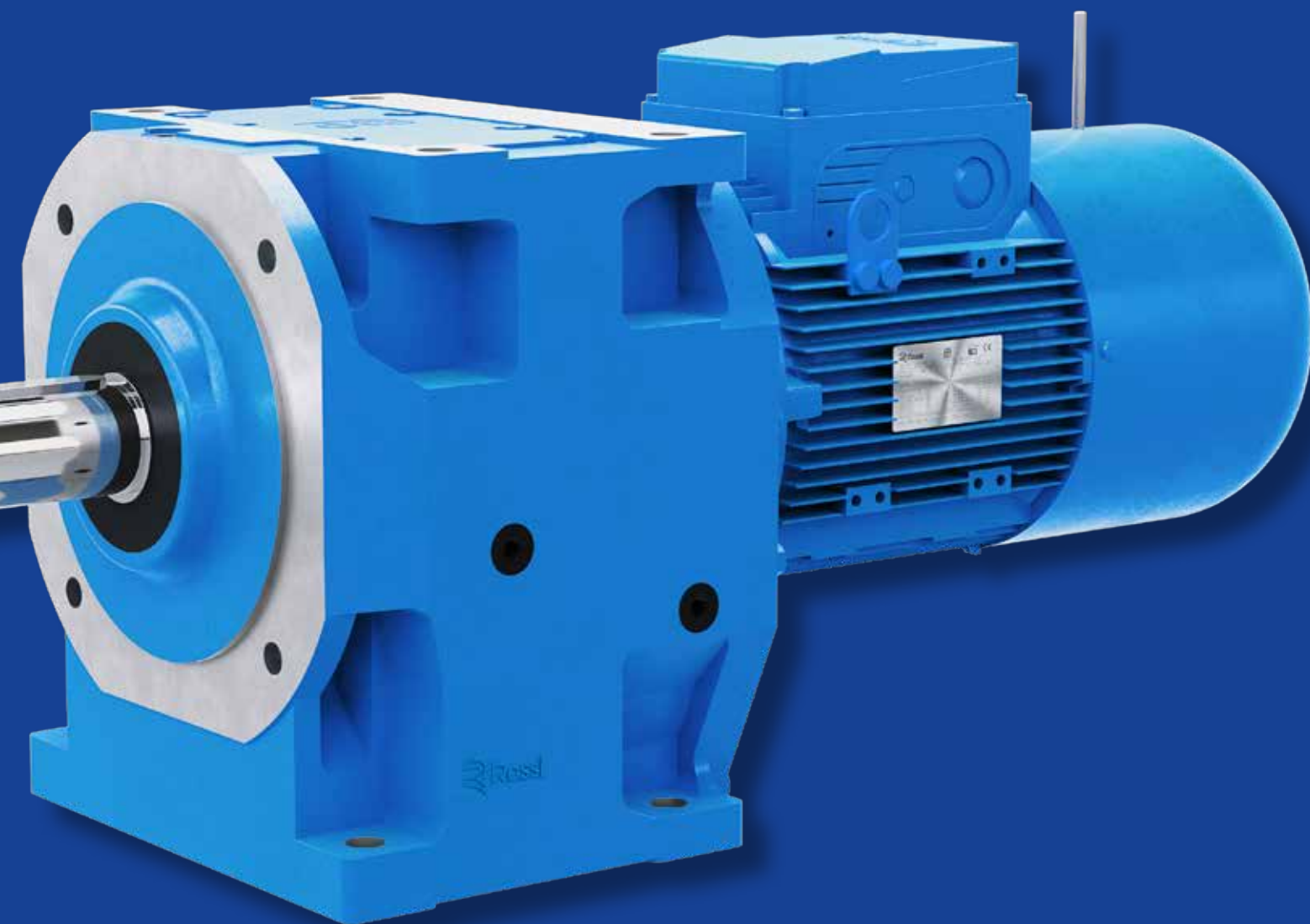


| Grandezza riduttore<br>Gear reducer size | $P_1$<br>Ø | 2I       |                     | 3I       |                     |
|------------------------------------------|------------|----------|---------------------|----------|---------------------|
|                                          |            | HF<br>mm | $M_{bmax}$<br>daN m | HF<br>mm | $M_{bmax}$<br>daN m |
| <b>32</b>                                | 140        | 11       | <b>14</b>           | 11       | <b>14</b>           |
| <b>40, 41</b>                            | 140        | 12       | <b>25</b>           | 13,5     | <b>25</b>           |
|                                          | 160        | 12       | <b>25</b>           | 13,5     | <b>25</b>           |
| <b>50, 51</b>                            | 140        | —        | <b>—</b>            | 16       | <b>28</b>           |
|                                          | 160        | 16       | <b>28</b>           | 16       | <b>28</b>           |
|                                          | 200        | 16       | <b>40</b>           | 16       | <b>40</b>           |
| <b>63, 64</b>                            | 160        | —        | <b>—</b>            | 19       | <b>50</b>           |
|                                          | 200        | 19       | <b>50</b>           | 19       | <b>50</b>           |
|                                          | 250        | 19       | <b>90</b>           | —        | <b>—</b>            |
| <b>80, 81</b>                            | 200        | 22       | <b>112</b>          | 22       | <b>112</b>          |
|                                          | 250        | 22       | <b>112</b>          | 22       | <b>112</b>          |
|                                          | 300        | 24,5     | <b>160</b>          | —        | <b>—</b>            |
|                                          | 350        | —        | <b>—</b>            | —        | <b>—</b>            |
| <b>100, 101</b>                          | 200        | —        | <b>—</b>            | 24       | <b>140</b>          |
|                                          | 250        | 24       | <b>140</b>          | 24       | <b>140</b>          |
|                                          | 300        | 24       | <b>140</b>          | 24       | <b>140</b>          |
|                                          | 350        | 40       | <b>140</b>          | —        | <b>—</b>            |
|                                          | —          | —        | <b>—</b>            | —        | <b>—</b>            |
|                                          | —          | —        | <b>—</b>            | —        | <b>—</b>            |
| <b>125 ... 140</b>                       | 250        | —        | <b>—</b>            | 28,5     | <b>250</b>          |
|                                          | 300        | 28,5     | <b>250</b>          | 28,5     | <b>250</b>          |
|                                          | 350        | 28,5     | <b>250</b>          | 28,5     | <b>250</b>          |
|                                          | 400        | 30       | <b>250</b>          | —        | <b>—</b>            |
|                                          | 450        | 52,5     | <b>315</b>          | —        | <b>—</b>            |
|                                          | —          | —        | <b>—</b>            | —        | <b>—</b>            |
| <b>160, 180</b>                          | 300        | —        | <b>—</b>            | 34       | <b>560</b>          |
|                                          | 350        | 34       | <b>560</b>          | 34       | <b>560</b>          |
|                                          | 400        | 34       | <b>560</b>          | 34       | <b>560</b>          |
|                                          | 450        | 36       | <b>560</b>          | 36       | <b>560</b>          |
|                                          | 500        | 48       | <b>560</b>          | —        | <b>—</b>            |
|                                          | —          | —        | <b>—</b>            | —        | <b>—</b>            |





# Installation and maintenance





## General

Be sure that the structure on which gear reducer or gearmotor is fitted is plane, levelled and sufficiently dimensioned in order to assure fitting stability and vibration absence, keeping in mind all transmitted forces due to the masses, to the torque, to the radial and axial loads.

Position the gear reducer or gearmotor so as to allow a free passage of air for cooling both gear reducer and motor (especially at motor fan side).

Avoid: any obstruction to the air-flow; heat sources near the gear reducer that might affect the temperature of cooling-air and of gear reducer for radiation; insufficient air recycle or any other factor hindering the steady dissipation of heat.

Mount the gear reducer so as not to receive vibrations.

When external loads are present use pins or locking blocks, if necessary.

When fitting gear reducer and machine and/or gear reducer and eventual flange **B5** it is recommended to use **locking adhesives** such as LOCTITE on the fastening screws (also on flange mating surfaces).

For outdoor installation or in a hostile environment protect the gear reducer or gearmotor with anticorrosion paint. Added protection may be afforded by water-repellent grease (especially around the rotary seating of seal rings and the accessible zones of shaft end).

Gear reducers and gearmotors should be protected wherever possible, and by whatever appropriate means, from solar radiation and extremes of weather; weather protection **becomes essential** when high or low speed shafts are vertically disposed, or where the motor is installed vertical with fan uppermost.

For ambient temperatures greater than 40 °C or less than 0 °C, consult us.

Before wiring-up the gearmotor, make sure that motor voltage corresponds to input voltage. If the direction of rotation is not as desired, invert two phases at the terminals.

Star-delta starting should be adopted for starting on no load (or with a very small load) and/or when the necessity is for smooth starts, low starting current and limited stresses.

If overloads are imposed for long periods of time, or if shocks or danger of jamming are envisaged, then motor-protections, electronic torque limiters, fluid couplings, safety couplings, control units or other suitable devices should be fitted.

Where duty cycles involve a high number of starts on-load, it is advisable to utilize **thermal probes** (fitted on the wiring) for motor protection; a thermal overload relay is unsuitable since its threshold must be set higher than the motor's nominal current rating.

Use varistors to limit voltage peaks due to contactors.

**Warning! Bearing life, good shaft and coupling running depend on alignment precision between the shafts.** Carefully align the gear reducer with the motor and the driven machine (with the aid of shims if need be), interposing flexible couplings whenever possible.

Whenever a leakage of lubricant could cause heavy damages, increase the frequency of inspections and/or envisage appropriate control devices (e.g.: remote oil level gauge, lubricant for food industry, etc.).

In polluting surroundings, take suitable precautions against lubricant contamination through seal rings or other.

Gear reducer or gearmotor should not be put into service before it has been incorporated on a machine which is conform to 2006/42/EC directive.

For brake or non-standard motors, consult us for specific information.

## Fitting of components to shaft ends

It is recommended that the bore of parts keyed to shaft ends is machined to H7 tolerance; for low speed shaft ends, tolerance must be **K7** when load is not uniform and light. Other details are given in the «Shaft end» table (ch. 3.13).

Before mounting, clean mating surfaces thoroughly and lubricate against seizure and fretting corrosion.

Installing and removal operations should be carried out with **pullers** and **jacking screws** using the tapped hole at the shaft butt-end; for H7/m6 and K7/j6 fits it is advisable that the part to be keyed is pre-heated to a temperature of 80 ÷ 100 °C.

## Lubrication

Gear pairs and bearings are oil-bath or splash lubricated excluding sizes 32 ... 41 which are grease lubricated.

**Sizes 32 ... 41:** gear reducers are supplied **filled with synthetic grease** (SHELL Gadus S5, MOBIL SHX Polyrex 005), providing lubrication «**for life**» – assuming pollution-free surroundings.

**Sizes 50 ... 81:** gear reducers are supplied **filled with synthetic oil** (KLÜBER Klübersynth GH 6-220, MOBIL Glygoyle 220, SHELL Omala S4 WE 220) providing lubrication «**for life**» – assuming pollution-free surroundings. Ambient temperature range  $0 \div 40$  °C with peaks of  $-20$  °C and  $+50$  °C.

**Important** verify mounting position keeping in mind that if gear reducer is installed in a mounting position which differs from the one indicated on the name plate, it could require the addition of the difference between the two quantities of lubricant given in ch. 3.6 and 3.8, by way of the housing filler hole.

**Sizes 100 ... 180:** gear reducers are supplied **without oil**; before putting into service, fill to the specified level with **mineral oil** having the ISO viscosity grade given in the table.

1) Lubricant quantities stated on ch. 3.6 and 3.8 are approximate for provisioning. The exact oil quantity the gear reducer is to be filled with is definitely given by the level.

When it is required to increase oil change interval («long life»), the ambient temperature range, and/or reduce oil temperature, use **synthetic oil** with polyalphaolefines basis (PAO), always suggested, or with polyglycol basis (PAG) having ISO viscosity grade as indicated in the table.

| Manufacturer | PAO synthetic oil | PAG synthetic oil | Mineral Oil      |
|--------------|-------------------|-------------------|------------------|
| AGIP         | Blasia SX         | Blasia S          | Blasia           |
| ARAL         | Degol PAS         | Degol GS          | Degol BG         |
| BP           | Energyn EPX       | Energyn SG-XP     | Energol GR XP    |
| CASTROL      | Alphasyn EP       | Optiflex A        | Alpha SP         |
| FUCHS        | Renolin Unisys    | Renolin PG        | CLP Renolin CLP  |
| KLÜBER       | Klübersynth GEM4  | Klübersynth GH6   | Klüberoil GEM1   |
| MOBIL        | Mobil SHC Gear    | Mobil Glygoyle    | Mobilgear 600 XP |
| SHELL        | Omala S4 GX       | Omala S4 WE       | Omala S2 G       |
| TEXACO       | Pinnacle          | Synlube CLP       | Meropa           |
| TOTAL        | Carter SH         | Carter SY         | Carter EP        |

## ISO viscosity grade

Mean kinematic viscosity [cSt] at  $40$  °C.

| Speed $n_2$<br>min <sup>-1</sup> | Ambient temperature <sup>2)</sup> [°C] |              |               |
|----------------------------------|----------------------------------------|--------------|---------------|
|                                  | mineral oil                            |              | synthetic oil |
|                                  | $0 \div 20$                            | $10 \div 40$ | $0 \div 40$   |
| <b>&gt; 224</b>                  | 150                                    | 150          | 150           |
| <b>224 ÷ 22,4</b>                | 150                                    | 220          | 220           |
| <b>22,4 ÷ 5,6</b>                | 220                                    | 320          | 320           |
| <b>&lt; 5,6</b>                  | 320                                    | 460          | 460           |

2) Peaks of  $10$  °C above and  $10$  °C ( $20$  °C for synthetic oil) below the ambient temperature range are acceptable.

An overall guide to **oil-change interval** is given in the table, and assumes pollution-free surroundings. Where heavy overloads are present, halve the values.

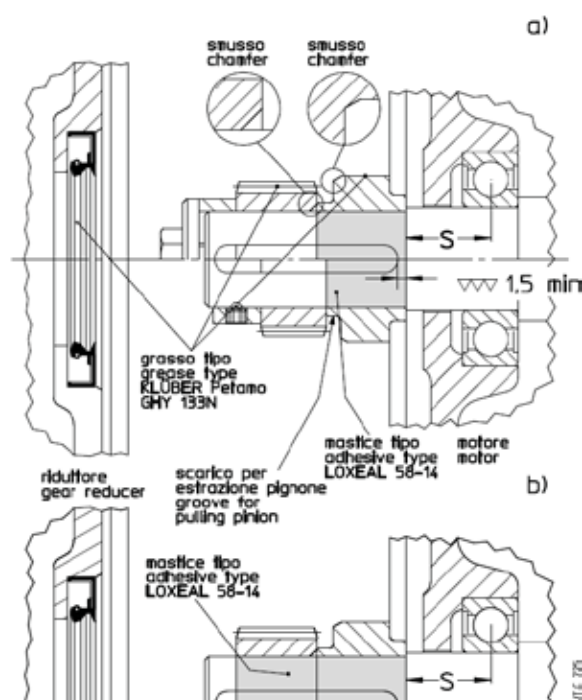
| Oil temperature [°C] | Oil-change interval [h] |               |
|----------------------|-------------------------|---------------|
|                      | mineral oil             | synthetic oil |
| <b>≤ 65</b>          | 8 000                   | 25 000        |
| <b>65 ÷ 80</b>       | 4 000                   | 18 000        |
| <b>80 ÷ 95</b>       | 2 000                   | 12 500        |

**Combined gear reducer and gearmotor units:** lubrication remains independent, thus data relative to each single gear reducer hold good.

**Seal rings:** duration depends on several factors such as dragging speed, temperature, ambient conditions, etc.; as a rough guide; it can vary from 3 150 to 12 500 h.

**Warning:** for gear reducers sizes 100 ... 180, before unscrewing the filler plug with valve (symbol ) wait until the unit has cooled and then open with caution.

## Motor replacement



| Motor size | Min dynamic load capacity [daN] |        | Max dimension 'S' mm |
|------------|---------------------------------|--------|----------------------|
|            | Front                           | Rear   |                      |
| <b>63</b>  | 450                             | 335    | 16                   |
| <b>71</b>  | 630                             | 475    | 18                   |
| <b>80</b>  | 900                             | 670    | 20                   |
| <b>90</b>  | 1 320                           | 1 000  | 22,5                 |
| <b>100</b> | 2 000                           | 1 500  | 25                   |
| <b>112</b> | 2 500                           | 1 900  | 28                   |
| <b>132</b> | 3 550                           | 2 650  | 33,5                 |
| <b>160</b> | 4 750                           | 3 350  | 37,5                 |
| <b>180</b> | 6 300                           | 4 500  | 40                   |
| <b>200</b> | 8 000                           | 5 600  | 45                   |
| <b>225</b> | 10 000                          | 7 100  | 47,5                 |
| <b>250</b> | 12 500                          | 9 000  | 53                   |
| <b>280</b> | 16 000                          | 11 200 | 56                   |

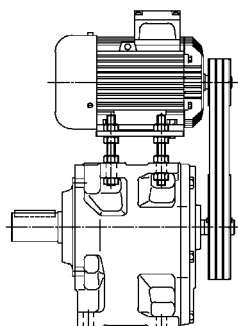
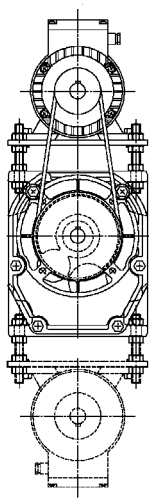
As all gearmotors are fitted with **standard** motors, motor replacement is extremely easy. Simply observe the following instructions:

- be sure that the mating surfaces are machined under accuracy rating (IEC 60072-1);
- clean surfaces to be fitted thoroughly;
- check that the fit-tolerance (push-fit) between hole and shaft end is K6/j6 for  $D \leq 28$  mm, J6/k6 for  $D \geq 38$  mm;
- in the event of a lowered keyway, replace the motor keyway with the one supplied with the gear reducer; adjust the keyway length to the motor shaft, if need be; check that between the top and the bottom of the hole keyway there is a backlash of  $0,1 \pm 0,2$  mm; in the event of output shaft keyway, lock the key by pins;
- make sure tha the motors have bearing location and overhang (distance S) as shown in the table;
- make sure that the motors have bearing location and overhang (distance S) as shown in the table;
- assemble on motor shaft, as follows:
  - the **spacer** pre-heated at **65 °C** sealing the motor shaft part with **locking adhesive type LOXEAL 58-14** and ensuring that between keyway and motor shaft shoulder there is a ground helical section of at least 1,5 mm; pay attention **not to damage the external surface** of spacer;
  - **the key** in the keyway, taking care that a brief segment of at least 0,9 times the pinion width;
  - the pinion pre-heated at **80 ÷ 100 °C**;
  - **the axial fastening system** where foreseen (head self-locking screw with base, spacer, or hub clamp with one or more dowels, fig. a); for the cases foreseen **without axial fastening** (fig. b), seal with **locking adhesive type LOXEAL 58-14** also the motor shaft section below the **pinion**;
- in the event of axial fastening system with hub clamp and dowels, be sure tha these ones do not overhang from spacer external surface: screw the dowel and matrix the motor shaft with a tip;
- grease the pinion teeth, the sealing ring rotary seat and the seal ring (with KLÜBER Petamo GHY 133N), and assemble carefully, **paying attention not to damage the seal ring lip due to accidental shock with the pinion toothing.**

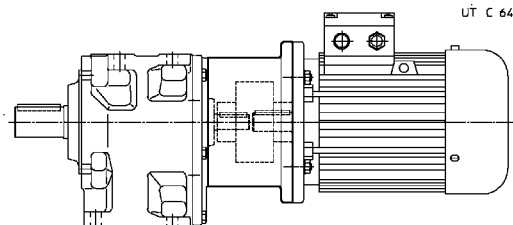


## Systems of motor-gear reducer mounting

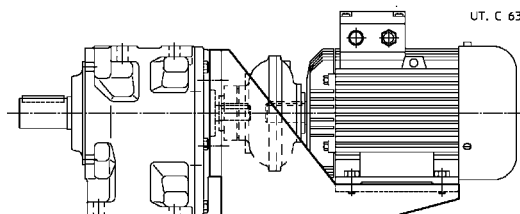
The strength and shape of housing offer **advantageous** systems of motor-gear reducer mounting: gearmotor with belt drive, mechanic or hydraulic coupling.



UT.C 637



UT.C 641



UT.C 639

# Accessories and non-standard designs





## Strengthened high speed shaft bearings

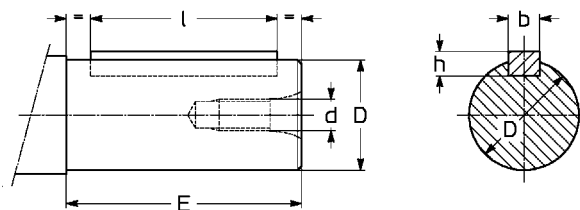
Gear reducer R 2l sizes 50, 63, 80 and sizes 51, 64, 81 with  $i_N \geq 16$  and R 3l sizes 63 ... 101 can be supplied with cylindrical roller bearings on high speed shaft so as to allow high radial loads, values **x 1,6** (ch. 13); this design is standard for all remaining gear reducers, which present cylindrical roller or taper roller bearings as a standard.

Supplementary description when ordering by **designation: strengthened high speed shaft bearings.**

## Non-standard low speed shaft end

The gear reducers and gearmotors size 40 ... 101 can be supplied with non-standard low speed shaft end; dimensions as per following table.

| Gear reducer size        | D<br>Ø | E  | d<br>Ø | Keyway<br>b x h x l |
|--------------------------|--------|----|--------|---------------------|
| <b>40</b> <sup>1)</sup>  | 20 g6  | 40 | M6     | 6 x 6 x 36          |
| <b>41</b>                | 20 j6  | 36 | M6     | 6 x 6 x 25          |
| <b>50</b>                | 25 j6  | 50 | M8     | 8 x 7 x 45          |
| <b>51</b>                | 25 j6  | 42 | M8     | 8 x 7 x 36          |
| <b>63, 64</b>            | 30 k6  | 58 | M10    | 8 x 7 x 45          |
| <b>63</b> <sup>1)</sup>  | 35 g6  | 58 | M10    | 10 x 8 x 50         |
| <b>64</b>                | 35 k6  | 58 | M10    | 10 x 8 x 50         |
| <b>80</b> <sup>1)</sup>  | 40 g6  | 80 | M12    | 12 x 8 x 70         |
| <b>81</b>                | 40 k6  | 80 | M12    | 12 x 8 x 70         |
| <b>100</b> <sup>1)</sup> | 50 g6  | 82 | M12    | 14 x 9 x 70         |
| <b>101</b>               | 50 k6  | 82 | M12    | 14 x 9 x 70         |



1) Shaft end without shoulder.

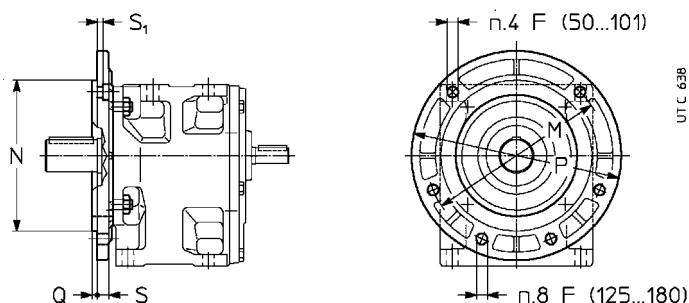
Supplementary description when ordering by **designation: nonstandard low speed shaft end, D ...** (dimension D Ø).

## Oversized B5 flange (low speed shaft)

All gear reducers and gearmotors (sizes  $\geq 50$ ) can be supplied with oversized B5 flange (always having through holes) supplied separately (complete with stud bolts) or fitted on standard B5 flange – if indicated when ordering –. Flange plane coincides with low speed shaft end shoulder.

The gear reducer is to be fastened after having fastened the flange on the machine.

Locking adhesives such as LOCTITE, should be used both on screws and coupling surfaces.



| Gear reducer size    | F<br>Ø          | M<br>Ø | N<br>Ø<br>h6 | P<br>Ø | Q   | S  | S <sub>1</sub><br>1) |
|----------------------|-----------------|--------|--------------|--------|-----|----|----------------------|
| <b>50, 51</b>        | 10,5            | 165    | 130          | 200    | 3,5 | 12 | 5,5                  |
| <b>63, 64</b>        | 13              | 215    | 180          | 250    | 4   | 14 | 6,5                  |
| <b>80, 81</b>        | 13              | 265    | 230          | 300    | 4   | 15 | 9                    |
| <b>100, 101</b>      | 17              | 300    | 250          | 350    | 5   | 17 | 10,5                 |
| <b>125, 126, 140</b> | 17 <sup>8</sup> | 400    | 350          | 450    | 5   | 17 | —                    |
| <b>160, 180</b>      | 17 <sup>8</sup> | 500    | 450          | 550    | 5   | 20 | —                    |

1) Screw type UNI 5931-84

Supplementary description when ordering by **designation: oversized B5 flange.**

## Design for agitators and aerators

This design has been specifically developed for aerators and agitators.

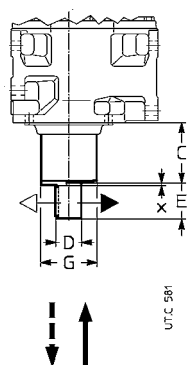
In addition to the rigid and precise **single-piece** housing, **universal** mounting, taper roller bearings (sizes 125 ... 180), the main features of this **reliable compact and economic** design are:

- extended bearing housing to improve radial and axial load ratings (sizes  $\geq 125$ : taper roller bearings) and to reduce overhangs;
- plentiful low speed shaft end diameter;
- double seals on the low speed shaft with chromium plated raceway;
- space between double seals packed with grease and top hat arrangement which acts as water splash guard for aerators;
- **oil** lubricated bearing on low speed shaft end side; additional stainless steel drain plug to facilitate complete oil drainage; all this ensures **total reliability** (gear pairs and bearings) during running and **minimum maintenance**;

Options:

- drip proof cover for motor (standard protection IP 55);
- special dual compound paint;
- remote oil level and/or oil temperature indicator with threshold signal (sizes  $\geq 160$ ).
- oversized B5 flange.

Axial load  $F_{a2}$  on low speed shaft end can be doubled according to direction of rotation for combinations **2** (as shown in the ch. 3.12 and in table) which are to be **preferred**; (for sizes 81 and 101 consult us for values of  $F_{a2}$ ).



| Gear reducer size | C   | D<br>Ø | E   | G<br>Ø | x<br>≈<br>1) | Axial load $F_{a2}$ |   |   |   |
|-------------------|-----|--------|-----|--------|--------------|---------------------|---|---|---|
|                   |     |        |     |        |              | ←                   | → | ← | → |
| <b>80, 81</b>     | 112 | 45 k6  | 82  | 104    | —            | 1                   | 2 | 2 | 1 |
| <b>100, 101</b>   | 137 | 55 m6  | 82  | 126    | —            | 2                   | 1 | 1 | 2 |
| <b>125, 126</b>   | 139 | 70 m6  | 105 | 140    | 3            | 1                   | 2 | 2 | 1 |
| <b>140</b>        | 140 | 80 m6  | 130 | 159    | 3            | 1                   | 2 | 2 | 1 |
| <b>160</b>        | 168 | 90 m6  | 130 | 183    | 4            | 2                   | 1 | 1 | 2 |
| <b>180</b>        | 158 | 100 m6 | 165 | 226    | 4            | 2                   | 1 | 1 | 2 |

1) Thickness of protection disc.

Supplementary description when ordering by **designation: design for agitators**.



## Gear reducer design ATEX II 2 GD and 3 GD

Coaxial gear reducers and gearmotors (sizes 32 ... 41 excluding) may be supplied according to European Community Directive ATEX 2014/34/EU in order to be used in potentially explosive atmospheres:

- category **2 GD** (for operation in zones 1 (G = gas), 21 (D = dust); **probable** presence of explosive atmosphere) and **3 GD** (for operation in zones 2 (gas), 22 (dust): **improbable** presence of explosive atmosphere) - with surface temperature  $T \leq 135^\circ\text{C}$  (T4).

These are the main variations of the product:

- fluoro-rubber seal rings;
- metal plugs; filler plug with filter and valve;
- special name plate with ATEX mark and indication of application limits.
- external protection tested on a water-soluble dual-compound polyacrylic **conductive** enamel, **color grey** RAL 7040, corrosivity class C3 | ISO 12944-2;
- «ATEX instructions» manual.

For category 2 GD, depending on **minimum** control **intervals**, also:

- 2 GD monthly control
- double seal rings on low speed shaft;
- 2 GD quarterly control (size 100 ... 180)
- double seal rings on low speed shaft;
- oil temperature probe;
- bearing temperature probe, if any;

this solution is advisable when the gear reducer has difficult access or when a decrease in control frequency is required.

Operating ambient temperature:  $-20 \div +40^\circ\text{C}$ .

The «**ATEX operating instructions**» (with the additional documentation, if any) are **integral part of the supply** of each gear reducer; every indication stated in it must be carefully applied. In case of needs, consult us.

## Gear reducer size selection

Determine the size of gear reducer as indicated in ch. 5 considering following additional limitations:

- maximum input speed  $n_1 \leq 1\,500 \text{ min}^{-1}$ ;
- **service factor requested** determined according to ch. 3.4 increased with the factors stated in following table - **never lower than 1**.

Verify, at last, that the applied power  $P_1$  is lower than or equal to nominal thermal power  $P_{tn}$  multiplied by thermal factors  $f_2 \dots f_5$  (see ch 4) and by corrective factor  $f_{ATEX}$  given in the following table.

ATEX design **corrective factors** for required service factor  $f_s$  and nominal thermal power  $P_{tn}$ .

| Categoria ATEX - ATEX Category | $f_{sATEX}$ | $f_{ATEX}$ |
|--------------------------------|-------------|------------|
| <b>2 GD</b>                    | 1,18        | 0,8        |
| <b>3 GD</b>                    | 1,06        | 0,9        |

## Motor category selection

In the table on the right the minimum features of motors to be installed with Rossi gear reducers in ATEX design, in potentially explosive atmosphere areas.

Protection methods of electric tools:

- EEEx **e** increased safety;
- EEEx **d** flameproof enclosure;
- EEEx **de** combination of «d» and «e»;
- EEEx **nA** reduced sparking

| Zona<br>Zone | Riduttore Rossi in<br>esecuzione ATEX II<br>Rossi <b>Gear reducer</b><br>ATEX II design | Categoria motore<br>richiesta <sup>1)</sup><br>Required <b>motor</b> category <sup>1)</sup> |
|--------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>1</b>     | 2 GD                                                                                    | 2 G EEEx e<br>2 G EEEx d<br>2 G EEEx de con termistori<br>o Pt100                           |
| <b>21</b>    |                                                                                         | 2 D IP65<br>2 GD EEEx e<br>2 GD EEEx d<br>2 GD EEEx de with<br>thermistors or<br>Pt100      |
| <b>1, 21</b> |                                                                                         |                                                                                             |
| <b>2</b>     | 3 GD                                                                                    | 3 G EEEx nA –                                                                               |
| <b>22</b>    |                                                                                         | 3 D IP54 <sup>2)</sup> –                                                                    |
| <b>2, 22</b> |                                                                                         | 3 GD EEEx nA                                                                                |

1) The devices suitable for zone 1 are also suitable for zone 2, similarly the devices suitable for zone 21 are also suitable for zone 22.

2) For conductive dusts motor must be 2 D IP65.

Supplementary description when ordering by **designation**<sup>1)</sup>:  
**design ATEX II ...**

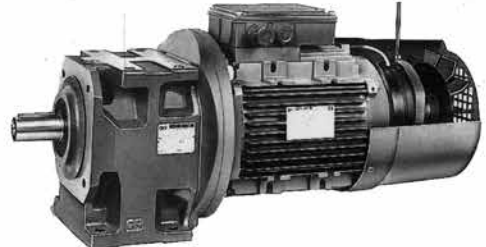
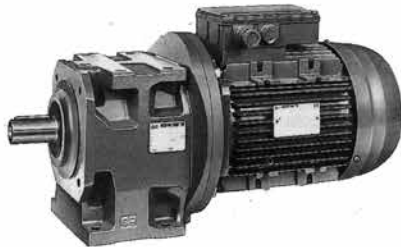
- ... **3 GD T4** sizes 50 ... 180
- ... **2 GD T4 monthly control** sizes 50 ... 180
- ... **2 GD T4 quarterly control** sizes 100 ... 180

1) For gearmotors, this designation refers to the only **gear reducer part**.



## Miscellaneous

- Gearmotors with:
  - **brake motor** (also single-phase) with d.c. **safety and/or parking brake** (sizes 63 ... 132) having overall dimensions nearly the same of a standard motor and braking torque  $M_f \geq M_N$ , maximum economy; **suitable for running with inverter**, non-standard designs with axial independent cooling fan and/or encoder (see ch. 2b);
  - **two-speed motor** (standard, brake motor, brake motor with safety brake and/or parking brake, with flywheel) with 2.4, 2.6, 2.8, 2.12, 4.6, 4.8, 6.8 poles;



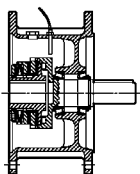
- motor featuring: d.c. supply; single-phase; explosion-proof; with second shaft end; with non-standard protection, voltage and frequency; provided with devices against overloads and overheating;
- **motor without fan** externally cooled **by natural convection** (sizes 63 ... 112); design for textile industry.
- **MLA unit, mechanical torque limiter on input shaft**, motor sizes **80 ... 200**.

Mechanical torque limiter unit to be interposed between gear reducer and B5 mounting position motor standardized to IEC (or wide belt or planetary motor-variator) or, in **combined units**, between the initial gear reducer and the final gear reducer.

Axially ultra-compact design: excellent load bearing with life lubricated double row angular contact ball bearings (motor size  $\leq 112$ ) or «O» disposed taper roller bearings.

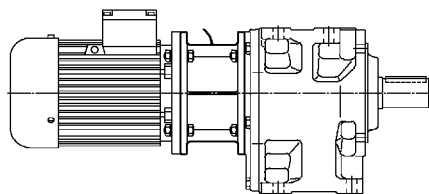
The unit protects the drive from accidental overloads by excluding inertia loads transmitted from up-line masses and down-line masses.

**LA unit is friction type** (friction surfaces without asbestos). When the transmitted torque tends to exceed the setting, the drive «slips» although **it remains** engaged and transmits torque equal to the limiter setting value; slipping stops as soon as the load returns to normal; in the case of very brief overloads the driven machine will continue normal operation (after decelerating or stopping) without requiring reset procedures.



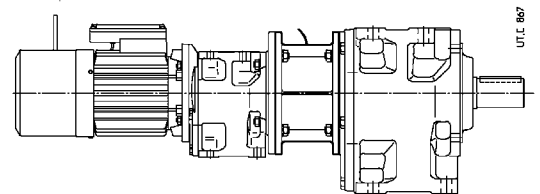
MLA

friction



MLA

mounted between gear reducer  
and motor or motor-variator



MLA

mounted onto combined units

\* on request

- Gearmotors with interposed compact clutch-brake or fluid coupling/brake unit.
- Semi-flexible low speed shaft couplings.
- Special seal rings; double seal.

# Technical formulae





Main formulae concerning mechanical drives, according to the Technical System and International Unit System (SI).

| Size                                                                                                                                      | Con unità Sistema Tecnico<br>With Technical System units                                                                                                            | Con unità SI<br>With SI units                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| starting or stopping <b>time</b><br>as a function of an acceleration or deceleration, of a starting or braking torque                     | $t = \frac{Gd^2 \cdot n}{375 \cdot M} [s]$                                                                                                                          | $t = \frac{J \cdot \omega}{M} [s]$                                                                              |
| <b>velocity</b> in rotary motion                                                                                                          | $v = \frac{\pi \cdot d \cdot n}{60} = \frac{d \cdot n}{19,1} [m/s]$                                                                                                 | $v = \omega \cdot r [m/s]$                                                                                      |
| <b>speed n</b> and <b>angular velocity ω</b>                                                                                              | $n = \frac{60 \cdot v}{\pi \cdot d} = \frac{19,1 \cdot v}{d} [min^{-1}]$                                                                                            | $\omega = \frac{v}{r} [rad/s]$                                                                                  |
| <b>acceleration</b> or deceleration as a function of starting or stopping time                                                            | $a = \frac{v}{t} [m/s^2]$                                                                                                                                           | $a = \frac{\omega}{t} [rad/s^2]$                                                                                |
| <b>angular acceleration</b><br>or deceleration as a function of a starting or stopping time, of a starting or braking torque              | $\alpha = \frac{n}{9,55 \cdot t} [rad/s^2]$<br>$\alpha = \frac{39,2 \cdot M}{Gd^2} [rad/s^2]$                                                                       | $\alpha = \frac{\omega}{t} [rad/s^2]$<br>$\alpha = \frac{M}{J} [rad/s^2]$                                       |
| starting or stopping <b>distance</b><br>as a function of an acceleration or deceleration, of a final or initial velocity                  | $s = \frac{a \cdot t^2}{2} [m]$                                                                                                                                     | $s = \frac{v \cdot t}{2} [m]$                                                                                   |
| starting or stopping <b>angle</b><br>as a function of an angular acceleration or deceleration, of a final or initial angular velocity     | $\varphi = \frac{n \cdot t}{19,1} [rad]$                                                                                                                            | $\varphi = \frac{\omega \cdot t}{2} [rad]$                                                                      |
| <b>mass</b>                                                                                                                               | $m = \frac{G}{g} \left[ \frac{kgf \cdot s^2}{m} \right]$<br>G è l'unità di peso (forza peso) [kgf]    G = m · g [N]<br>G is the unit of weight (weight force) [kgf] | m è l'unità di massa [kg]<br>m is the unit of mass [kg]                                                         |
| <b>weight</b> (weight force)                                                                                                              | $F = G [kgf]$                                                                                                                                                       | $F = m \cdot g [N]$                                                                                             |
| <b>force</b> in vertical (lifting), horizontal, inclined motion of translation<br>(μ = coefficient of friction; φ = angle of inclination) | $F = \mu \cdot G [kgf]$<br>$F = G (\mu \cdot \cos \varphi + \sin \varphi) [kgf]$                                                                                    | $F = \mu \cdot m \cdot g [N]$<br>$F = m \cdot g (\mu \cdot \cos \varphi + \sin \varphi) [N]$                    |
| <b>dynamic moment Gd<sup>2</sup>, moment of inertia J</b> due to a motion of translation<br>(numerically $J = \frac{Gd^2}{4}$ )           | $Gd^2 = \frac{365 \cdot G \cdot v^2}{n^2} [kgf \cdot m^2]$                                                                                                          | $J = \frac{m \cdot v^2}{\omega^2} [kg \cdot m^2]$                                                               |
| <b>torque</b> as a function of a force, of a dynamic moment or of a moment of inertia, of a power                                         | $M = \frac{F \cdot d}{2} [kgf \cdot m]$<br>$M = \frac{Gd^2 \cdot n}{375 \cdot t} [kgf \cdot m]$<br>$M = \frac{716 \cdot P}{n} [kgf \cdot m]$                        | $M = F \cdot r [N \cdot m]$<br>$M = \frac{J \cdot \omega}{t} [N \cdot m]$<br>$M = \frac{P}{\omega} [N \cdot m]$ |
| <b>work, energy</b> in motion of translation, in rotary motion                                                                            | $W = \frac{G \cdot v^2}{19,6} [kgf \cdot m]$<br>$W = \frac{Gd^2 \cdot n^2}{7160} [kgf \cdot m]$                                                                     | $W = \frac{m \cdot v^2}{2} [J]$<br>$W = \frac{J \cdot \omega^2}{2} [J]$                                         |
| <b>power</b> in motion of translation, in rotary motion                                                                                   | $P = \frac{F \cdot v}{75} [CV]$<br>$P = \frac{M \cdot n}{716} [CV]$                                                                                                 | $P = F \cdot v [W]$<br>$P = M \cdot \omega [W]$                                                                 |
| <b>power</b> available at the shaft of a single-phase motor (cos φ = power factor)                                                        | $P = \frac{U \cdot I \cdot \eta \cdot \cos \varphi}{736} [CV]$                                                                                                      | $P = U \cdot I \cdot \eta \cdot \cos \varphi [W]$                                                               |
| <b>power</b> available at the shaft of a three-phase motor                                                                                | $P = \frac{U \cdot I \cdot \eta \cdot \cos \varphi}{425} [CV]$                                                                                                      | $P = 1,73 \cdot U \cdot I \cdot \eta \cdot \cos \varphi [W]$                                                    |

Note. Acceleration or deceleration are understood constant; motion of translation and rotary motion are understood rectilinear and circular respectively.



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