SAMT
Specialised Air Motors and Transmission
Factory 19 / 5 Lyn Parade PRESTONS NSW 2170
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# N series
# PLANETARY GEAR UNIT

Part 1

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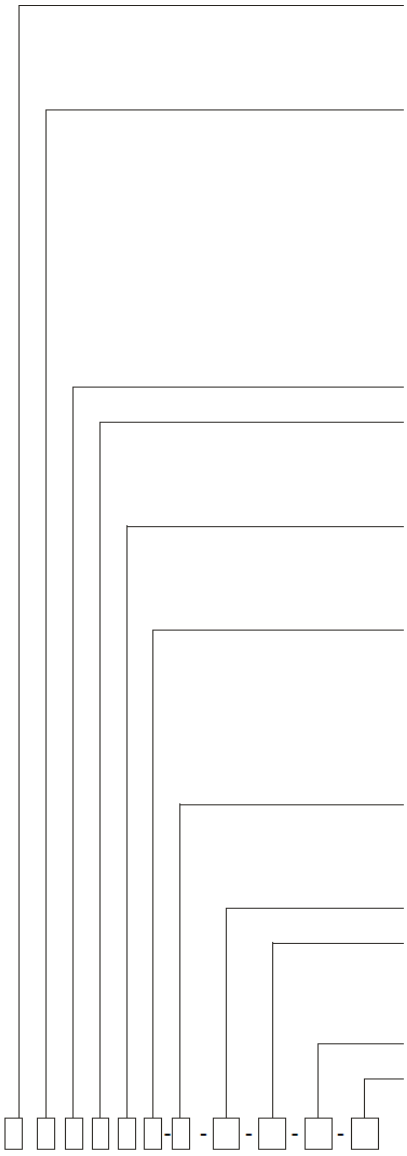
SAMT
Specialised Air Motors and Transmission
www.tonson-motor.com.au

## INDEX

## DESIGNATION



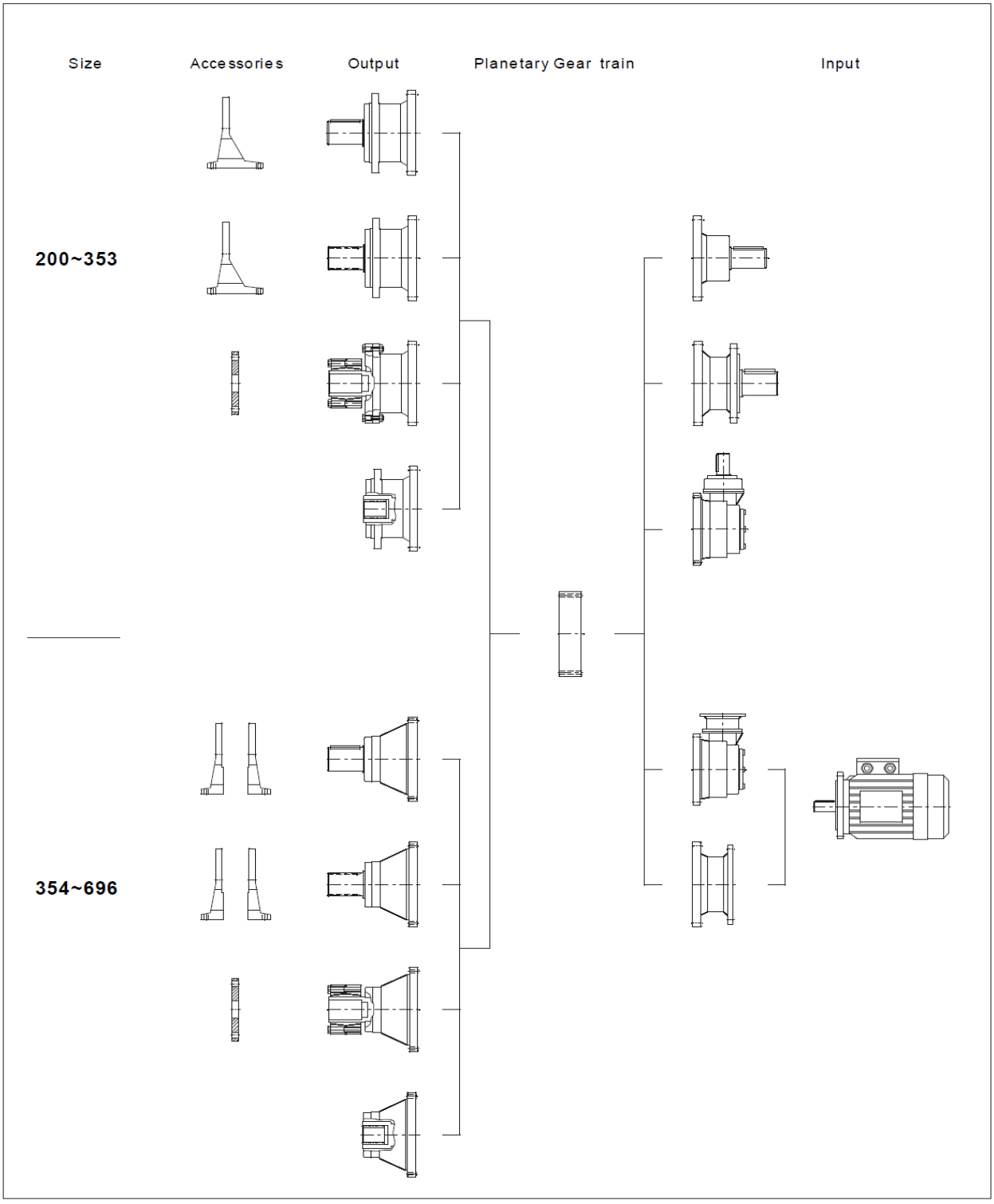
| | |
|---|---|
| | machine |
| **N** | gear reducer |
| **MN** | gearmotor |
| | train of gears |
| **1E** | 1 planetary gears |
| **2E** | 2 planetary gears |
| **3E** | 3 planetary gears |
| **4E** | 4 planetary gears |
| **CE** | 1 bevel gear pair and 1 planetary gear |
| **C2E** | 1 bevel gear pair and 2 planetary gear |
| **C3E** | 1 bevel gear pair and 3 planetary gear |
| **200~696** | size |
| | shaft position |
| **C** | coaxial |
| **R** | right angle |
| | design code |
| **1** | 200~353 |
| **2** | 354~696 |
| | low shaft design |
| **C** | cylindrical shaft end |
| **S** | external splined shaft end |
| **H** | hollow shaft with shrink disc |
| **Z** | internal splined shaft |
| | accessorys(omit signing when without it) |
| **FO** | with foot |
| **TA** | with torque arm |
| | transmission ratio |
| | motor connection |
| **71~250M** | motor size |
| **71~250B5** | without motor but with motor flange |
| **4(2,6)** | motor poles(omit when with motor flange) |
| | mounting positions |

### SIGN EXAMPLE

N 2E 200 C1C-24.8 - B5
N 3E 355 C2C-106-V1
N C3E 696 R2H-TA-658-B52
MN 3E 280 C1C-47.3-132M4-B5
MN 4E 445 C2C-FO-281-180M4-B5
MN C2E 353 R1Z-61.9-160B5-V1
MN CE429 R2H-15.4-250M4-B53

N 2E 200 C1C-24.8 - B5
N 3E 355 C2C-106-V1
N C3E 696 R2H-TA-658-B52
MN 3E 280 C1C-47.3-132M4-B5
MN 4E 445 C2C-FO-281-180M4-B5
MN C2E 353 R1Z-61.9-160B5-V1
MN CE429 R2H-15.4-250M4-B53

# MODULAR SYSTEM



## SPECIFICATIONS

Wide and comprehensive range of planetary gear redu-
-cers and gearmotors for industrial applications;
Possibility of flange, foot or shaft mounting solutions;
Low speed shaft design: cylindrical with key, splined, ho-
-llow with shrink disc or splined hollow shaft.
Rigid and precise nodular cast iron casing;
Load capacity and low speed shaft bearing, high, prope-
-rly stepped and with appropriate proportioning of torqu-
-e values and relevant radial loads;
Low noise running;
Manufacturing and product management flexibility;
High manufacturing quality standard;
Motor standardized to IEC;
High and reliable performance;
Closer intermediate size and performance steps espec-
-ially in the "high" range area;

This range of gear reducers and gearmotors combines and exalts the traditional qualities of planetary gear reducers compactness, economy, strength with the ones deriving fr-
-om modern innovating design for these gear reducer type:

harmonious development of the range:
regular size steps in terms of torque, radial load, shaft end and hollow shaft dimension
realizing the most important economic aspect: minimis-
-ing the difference between the required performance a-
-nd the offered one;
technical documentation– for complete data, easy con-
-sulting, identification of performance and dimensions, scientifically conceived
suitable for the application needs of a standard manuf-
-actured product in the industrial sector, for a direct, rap-
-id and complete selection.

### Main structural features

16 sizes with modular system;
1,2, 3 or 4 reduction stages for both coaxial and right angle shaft design ;
fastening with through holes with flange for sizes 200 ~ 353, directly on casing with second spigot rec-
-ess on overhung hub for sizes 354 ~696;
possibility of fastening with feet, on request;

## SPECIFICATION

gear reducer overall dimensions are suitable to be equi-
-pped with large motor sizes transmitting high nominal
and maximum torques, supporting high loads on low
and high speed shaft ends;
low speed shaft designs : cylindrical shaft end with 1key
and 1 butt-end threaded hole (size≤ 353) or 2 keys and
3 butt-end threaded holes (size≥ 354), splined shaft en-
-ds with spigot recess and 3 threaded holes, hollow sha-
-ft with shrink disc (for shaft mounting), splined hollow
shaft;
improved and up-graded modular construction both for
component parts and assembled product;
gear reducers: input face with hub or flange and with h-
-oles; cylindrical high speed shaft end with key;
gearmotors: motor standardized to IEC directly keyed
into hollow high speed shaft;

low speed shaft bearings:
200~280------double taper rollers
353~695------adjustable-cylindrical roller and ball bea-
-rings.
nodular cast iron casing (excluding the steel gear) with
thick walls and stiffening ribs;
shafts made of case hardened and hardened steel
oil bath lubrication; synthetic or mineral oil with filler plug
with valve, drain and level plug; sealed;

**Train of gears:**

with 1, 2, 3, 4 planetary gears (coaxial);
with 1 bevel gear and 1, 2, 3 planetary gears (right angle
shafts);
nominal transmission ratios to R40/3 (3.15~ 3 000) for
coaxial, R40/3 (10~2 120) for right angle shafts;
case hardened and hardened gear pairs: external geari-
-ngs made of 20CrMnTi steel , internal gearings made
of 42CrMo;
cylindrical spur gears with profile and flank modification,
ground or accurately shaved;
GLEASON spiral bevel gear pairs with ground or accur-
-ately lapped profile;
floating planet carrier in hardened and tempered steel ;
concordant directions of rotation of high and low speed
shaft, both for coaxial and for right angle shaft;
gears load capacity calculated for tooth bending streng-
-th and pitting;maximum instantaneous power verified.

## ELECTRIC MOTOR

**Standard design:**

motor standardized to IEC;
asynchronous three-phase, totally-enclosed, externally ventilated,with cage rotor;
single polarity, frequency 50 Hz:
voltage 220 V/380 V ±10%,up to size 132 ,
380 V/660V ±10% from size 160 upwards;
IP 54 protection, insulation class F;
rated power delivered on continuous duty (S1) and at standard voltage and frequency; maximum ambient temperature 40 °C, max altitude 1 000 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);

**Brake motor**

motor standardized IEC having the same specifications as normal motor;
particularly strong construction to withstand braking stresses;maximum reduction of noise level;
spring-loaded DC electromagnetic brake; feeding from the terminal box; brake can also be fed independently direct from the line;
braking torque proportioned to motor torque and adjustable by adding or removing spring pairs;
high frequency of starting enabled;
rapid, precise stopping;
break motor supplied without hand lever,if need,please sign it in the contract.
hand lever for manual release with automatic return;
removable lever rod.
For other specifications and details see specific literature.

**Suitable for the running with inverter**

for normal motor ,permissible frequancy range is: 20Hz~60Hz;
for brake motor,the wire should be independent from the terminal box when use with inventer;
for the motor designed for inventor,permissible frequancy and details see specific literature.

## INPUT SPEED

**Permissible input speed**

| size | Train of gear | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1E | 2E | 3E | 4E | CE | C2E | C3E |
| 200 | 2800 | 2800 | 2800 | – | 2800 | 2800 | – |
| 201 | 2800 | 2800 | 2800 | – | 2800 | 2800 | – |
| 240 | 2240 | 2800 | 2800 | 2800 | 2800 | 2800 | 2800 |
| 241 | 2240 | 2800 | 2800 | 2800 | 2240 | 2800 | 2800 |
| 280 | 1800 | 2240 | 2800 | 2800 | 2240 | 2800 | 2800 |
| 353 | 1400 | 2240 | 2800 | 2800 | 2240 | 2800 | 2800 |
| 354 | 1400 | 2240 | 2800 | 2800 | 1800 | 2240 | 2800 |
| 355 | 1400 | 1800 | 2240 | 2800 | 1800 | 2240 | 2800 |
| 428 | 1120 | 1800 | 2240 | 2800 | 1800 | 2240 | 2800 |
| 429 | 1120 | 1400 | 2240 | 2800 | 1800 | 2240 | 2800 |
| 445 | 900 | 1400 | 2240 | 2800 | – | 1800 | 2240 |
| 446 | 900 | 1400 | 1800 | 2240 | – | 1800 | 2240 |
| 542 | 750 | 1120 | 1800 | 2240 | – | 1800 | 2240 |
| 543 | 750 | 1120 | 1400 | 2240 | – | 1800 | 2240 |
| 695 | 750 | 900 | 1400 | 1800 | – | – | 1800 |
| 696 | 750 | 900 | 1400 | 1800 | – | – | 1800 |

Real input speed must less than or equal to the specified permissible input speed,if great than specified value,please contact SGR company.

## THERMAL POWER $P_t$

Nominal thermal power $P_{tN}$, indicated in the table, is that which can be applied at the gear reducer input when opera--ting on continuous duty, maximum ambient temperature of 40 °C, max altitude 1000 m and air speed 1,25 m/s, without exceeding 80 °C approximately oil temperature.

| stage of gear | gear reducer size | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 200 | 201 | 240 | 241 | 280 | 353 | 354 | 355 | 428 | 429 | 445 | 446 | 542 | 543 | 695 | 696 |
| 1E | 8.7 | 8.7 | 13.5 | 13.5 | 16.4 | 22.8 | 24.4 | 24.4 | 30.2 | 30.2 | 37.4 | 37.4 | 46.2 | 46.2 | 59.5 | 59.5 |
| 2E | 6.7 | 7.1 | 9 | 9.5 | 11.8 | 15 | 16 | 18 | 21.2 | 25 | 29 | 29 | 37.5 | 40 | 47.5 | 50 |
| 3E | 6.7 | 6.3 | 7.1 | 7.5 | 9.5 | 11.2 | 11.8 | 13.2 | 16.8 | 19.8 | 20.6 | 21.8 | 28.8 | 30.8 | 35.5 | 37.5 |
| 4E | – | – | 5.3 | 5.6 | 6.7 | 8.8 | 8.5 | 9.5 | 11.2 | 13.2 | 14.5 | 15.5 | 19.5 | 21.2 | 25.8 | 26.5 |
| CE | 8.7 | 8.5 | 11.2 | 15.5 | 17.5 | 21.2 | 23.6 | 30 | 35.5 | 40.8 | – | – | – | – | – | – |
| C2E | 7.1 | 7.5 | 9.1 | 10.2 | 12.5 | 15.2 | 18.0 | 19.8 | 22.4 | 26.5 | 28.5 | 31.5 | 40.8 | 42.5 | – | – |
| C3E | – | – | 7.1 | 8.5 | 9.5 | 10.6 | 12.5 | 13.2 | 15.8 | 17.8 | 19.8 | 20.8 | 25.8 | 28.8 | 33.5 | 35.5 |

## THERMAL POWER Pt

IMPORTANT!

thermal power Pt can be different from the nominal PtN described above, as per the following formula:

$Pt = PtN \cdot ft$

where ft is the thermal factor depending on:

Kp---ambient temperature and type of duty factor, listed in following table.

Ks---mounting position and input speed factor, listed in following table.

thermal factor caculated by following formula:

$ft = Kp \cdot Ks$

Thermal factor $K_s$

| mounting position | input speed rpm | | | | | | |
|---|---|---|---|---|---|---|---|
| | **710** | **900** | **1120** | **1400** | **1800** | **2240** | **2800** |
| B5,B53 | 1.4 | 1.25 | 1.12 | 1 | 0.85 | 0.56 | 0.4 |
| V1,B51 | 1.18 | 1.06 | 0.95 | 0.85 | 0.67 | 0.475 | 0.335 |
| V3,B52 | 1.4 | 0.9 | 0.8 | 0.71 | 0.56 | 0.46 | 0.28 |

Thermal factor $K_p$

| Maximum ambient temperature °C | Cyclic duration factor [%] for 60 minutes running | | | | |
|---|---|---|---|---|---|
| | **100** | **60** | **40** | **25** | **15** |
| 40 | 1 | 1.18 | 1.32 | 1.5 | 1.7 |
| 30 | 1.18 | 1.4 | 1.6 | 1.8 | 2 |
| 20 | 1.32 | 1.6 | 1.8 | 2 | 2.24 |
| 10 | 1.5 | 1.8 | 2 | 2.24 | 2.5 |

$$\text{Cyclic duration factor} = \frac{\text{Duration of running on load [min]}}{60} X100\%$$

**IMPORTANT!**

It is always necessary to verify that the applied power $P_1$ is less than or equal to the Pt value

$P_1 \leqslant (Pt = P_{tN} \cdot f_t)$

Whenever the thermal verification should not be satisfi--ed, it is possible to install an independent cooling unit, made up of oil/air or oil/water heat exchanger;

Thermal power needs not be taken into account when maximum duration of continuous running time is 0,5~1,5 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 40° C or below 0 °C contact SGR company.

## SERVICE FACTOR

Service factor fs 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 catalogue are no--minal (i.e. valid for fs = 1) for gear reducers, correspon--ding to the *f*s indicated for gearmotors.

gearmotors Caculate fs perform formula:fs= ft **f**

Factor $f_t$ base on running time

| Nature of load of the driven machine | | Life time[h] / Running time [h/d] | | | | |
|---|---|---|---|---|---|---|
| No. | description | **3150** 2h/d | **6300** 2h/d | **12500** 4h/d | **25000** 8h/d | **50000** 16h/d |
| **a** | Uniform | 0.9 | 0.95 | 1 | 1.25 | 1.5 |
| **b** | Moderate overloads (1.6×normal load) | 1.12 | 1.18 | 1.25 | 1.6 | 1.9 |
| **c** | Heavy overloads (2,5×normal load) | 1.5 | 1.6 | 1.7 | 2.12 | 2.5 |

Factor $f_r$ base on frequency of starting

| Load No. | Frequency of starting [starts/h] | | | | | | |
|---|---|---|---|---|---|---|---|
| | **2** | **4** | **8** | **16** | **32** | **63** | **125** |
| **a** | 1 | 1.06 | 1.12 | 1.18 | 1.25 | 1.32 | 1.4 |
| **b** | 1 | 1 | 1.06 | 1.12 | 1.18 | 1.25 | 1.32 |
| **c** | 1 | 1 | 1 | 1.06 | 1.12 | 1.18 | 1.25 |

**ATTENTION!**

For indication on the nature of load of the driven machine acco--rding to the application.

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 comp--leted in 1, 2, 3 or 4 revolutions of low speed shaft; if precisely a continuous overloads should be assumed;

if a higher degree of reliability is required(particularly difficult maintenance conditions, key importance of gear reducer to pr--oduction, personnel safety, etc.) Multiply*f* by 1.25~ 1.4.

## SELECTION

Make available all necessary data: required output pow-
-er $P_2$ of gear reducer, speeds $n_2$ and $n_1$, running condi-
-tions (nature ofload, running time, frequency of starting
other considerations)

Determine service factor $f_s$ on the basis of running con-
-ditions

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 $P_2 \cdot f_s$.

Calculate power $P_1$ required at input side of gear reduc-
-er using the formula $P_2/\eta$, where $\eta$ is the efficiency of the gear reducer

efficiency

gear reducer with 1 planetary gears (1E): 0.97,
gear reducer with 2 planetary gears (2E): 0.94,
gear reducer with 3 planetary gears (3E) :0.91,
gear reducer with 4 planetary gears (4E): 0.89;
with 1 bevel gear pair and 1 planetary gear (CE): 0.95,
with 1 bevel gear pair and 2 planetary gears (C2E) :0.92,
with 1 bevel gear pair and 3 planetary gears (C3E) :0.9;

## TECHNICAL DATA

**Technical data for in line gear motor**

## TECHNICAL DATA

Reading the rating chart

(1) (2)

**$P_1$ = 0.25 kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.64** | 3320 | 2.65 | 2187 | 6.7 | **MN 4E 280** | | **7114** | 47500 | 53000 | 103 |
| **0.619** | 3430 | 1.14 | 2260 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **0.776** | 2740 | 2.36 | 1804 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **0.914** | 2330 | 2.8 | 1532 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **1.08** | 1970 | 3.15 | 1301 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |

(3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

1 electric motor power

2 electric motor speed

3 output speed

4 output torque

5 service factor

6 gear ratio

7 thermal power

8 gear unit size

9 electric motor frame

10 the maxmium radial load on solid output shaft

11 the maxmium radial load on splined output shaft

12 gear unit weight

## TECHNICAL DATA

### $P_1$ = 0.25 kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.64** | 3320 | 2.65 | 2187 | 6.7 | **MN 4E 280** | | **7114** | 47500 | 53000 | 103 |
| **0.619** | 3430 | 1.14 | 2260 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **0.776** | 2740 | 2.36 | 1804 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **0.914** | 2330 | 2.8 | 1532 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **1.08** | 1970 | 3.15 | 1301 | 5.6 | **MN 4E 241** | | **7114** | 30000 | 35500 | 74 |
| **0.776** | 2740 | 1.32 | 1804 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **0.914** | 2330 | 1.5 | 1532 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **1.08** | 1970 | 1.8 | 1301 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **1.25** | 1700 | 2.36 | 1120 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **1.57** | 1360 | 3 | 894 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **1.89** | 1120 | 3.35 | 740 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **2.29** | 930 | 4 | 613 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **2.65** | 800 | 4.75 | 527 | 5.3 | **MN 4E 240** | | **7114** | 30000 | 35500 | 66 |
| **3.2** | 680 | 2.36 | 437 | 6.3 | **MN 3E 201** | | **7114** | 19000 | 22400 | 42 |
| **3.72** | 580 | 3 | 377 | 6.3 | **MN 3E 201** | | **7114** | 19000 | 22400 | 42 |
| **3.2** | 680 | 1.32 | 437 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |
| **3.72** | 580 | 1.9 | 377 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |
| **4.66** | 467 | 2.8 | 301 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |
| **5.48** | 396 | 3.35 | 255 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |
| **6.46** | 336 | 3.75 | 217 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |
| **7.8** | 278 | 4.5 | 179 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |
| **9.43** | 230 | 5.3 | 149 | 6 | **MN 3E 200** | | **7114** | 15000 | 18000 | 39 |

### $P_1$ = 0.37 kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.87** | 3620 | 2.8 | 1610 | 6.7 | **MN 4E 280** | | **7124** | 47500 | 53000 | 103 |
| **1.02** | 3070 | 3.15 | 1367 | 6.7 | **MN 4E 280** | | **7124** | 47500 | 53000 | 103 |
| **0.914** | 3440 | 1.9 | 1532 | 5.6 | **MN 4E 241** | | **7124** | 30000 | 35500 | 66 |
| **1.08** | 2920 | 2.12 | 1301 | 5.6 | **MN 4E 241** | | **7124** | 30000 | 35500 | 74 |
| **1.25** | 2520 | 2.65 | 1120 | 5.6 | **MN 4E 241** | | **7124** | 30000 | 35500 | 74 |
| **1.57** | 2010 | 3.15 | 894 | 5.6 | **MN 4E 241** | | **7124** | 30000 | 35500 | 74 |
| **1.08** | 2920 | 1.18 | 1301 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **1.25** | 2520 | 1.6 | 1120 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **1.57** | 2010 | 2 | 894 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **1.89** | 1660 | 2.36 | 740 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **2.29** | 1380 | 2.8 | 613 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **2.65** | 1180 | 3.15 | 527 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **3.32** | 950 | 3.75 | 421 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **3.92** | 800 | 4.5 | 357 | 5.3 | **MN 4E 240** | | **7124** | 30000 | 35500 | 66 |
| **3.2** | 1000 | 1.6 | 437 | 6.3 | **MN 3E 201** | | **7124** | 19000 | 22400 | 42 |
| **3.72** | 870 | 2 | 377 | 6.3 | **MN 3E 201** | | **7124** | 19000 | 22400 | 42 |
| **4.66** | 690 | 2.5 | 301 | 6.3 | **MN 3E 201** | | **7124** | 19000 | 22400 | 48 |
| **5.48** | 590 | 3.55 | 255 | 6.3 | **MN 3E 201** | | **7124** | 19000 | 22400 | 48 |

## TECHNICAL DATA

### $P_1$= 0.37 kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| 3.2 | 1000 | 0.9 | 437 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 39 |
| 3.72 | 870 | 1.25 | 377 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 39 |
| 4.66 | 690 | 1.9 | 301 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 5.48 | 590 | 2.24 | 255 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 6.46 | 498 | 2.5 | 217 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 7.8 | 412 | 3 | 179 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 9.43 | 341 | 3.55 | 149 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 10.9 | 294 | 4 | 128 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 13.7 | 234 | 5 | 102 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |
| 16.2 | 199 | 5.6 | 86.6 | 6 | MN 3E 200 | | 7124 | 15000 | 18000 | 46 |

### $P_1$= 0.55 kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.505 | 9270 | 1.7 | 2775 | 8.5 | | MN 4E 354 | 801-4 | 71000 | 80000 | 179 |
| 0.61 | 7670 | 2.36 | 2297 | 8.5 | | MN 4E 354 | 801-4 | 71000 | 80000 | 179 |
| 0.61 | 7670 | 1.7 | 2297 | 8 | MN 4E 353 | | 801-4 | 60000 | 67000 | 163 |
| 0.782 | 5980 | 2.5 | 1789 | 8 | MN 4E 353 | | 801-4 | 60000 | 67000 | 163 |
| 0.921 | 5070 | 3 | 1519 | 8 | MN 4E 353 | | 801-4 | 60000 | 67000 | 163 |
| 1.09 | 4310 | 3.55 | 1290 | 8 | MN 4E 353 | | 801-4 | 60000 | 67000 | 163 |
| 0.87 | 5370 | 1.8 | 1610 | 6.7 | MN 4E 280 | | 801-4 | 47500 | 53000 | 109 |
| 1.19 | 3930 | 2.5 | 1177 | 6.7 | MN 4E 280 | | 801-4 | 47500 | 53000 | 109 |
| 1.44 | 3250 | 3 | 974 | 6.7 | MN 4E 280 | | 801-4 | 47500 | 53000 | 109 |
| 1.25 | 3740 | 1.7 | 1120 | 5.6 | MN 4E 241 | | 801-4 | 30000 | 35500 | 79 |
| 1.57 | 2990 | 2.12 | 894 | 5.6 | MN 4E 241 | | 801-4 | 30000 | 35500 | 79 |
| 1.89 | 2470 | 2.5 | 740 | 5.6 | MN 4E 241 | | 801-4 | 30000 | 35500 | 79 |
| 2.29 | 2050 | 3 | 613 | 5.6 | MN 4E 241 | | 801-4 | 30000 | 35500 | 79 |
| 2.65 | 1760 | 3.35 | 527 | | MN 4E 241 | | 801-4 | 30000 | 35500 | 79 |
| 1.57 | 2990 | 1.32 | 894 | 5.3 | MN 4E 240 | | 801-4 | 30000 | 35500 | 71 |
| 1.89 | 2470 | 1.6 | 740 | 5.3 | MN 4E 240 | | 801-4 | 30000 | 35500 | 71 |
| 2.29 | 2050 | 1.8 | 613 | 5.3 | MN 4E 240 | | 801-4 | 30000 | 35500 | 71 |
| 2.65 | 1760 | 2.12 | 527 | 5.3 | MN 4E 240 | | 801-4 | 30000 | 35500 | 71 |
| 3.32 | 1410 | 2.65 | 421 | 6.3 | MN 4E 240 | | 801-4 | 30000 | 35500 | 71 |
| 3.92 | 1190 | 3 | 357 | 6.3 | MN 4E 240 | | 801-4 | 30000 | 35500 | 71 |
| 3.2 | 1490 | 1.6 | 437 | 5.3 | MN 3E 240 | | 801-4 | 30000 | 35500 | 64 |
| 3.77 | 1270 | 1.9 | 371 | 5.3 | MN 3E 240 | | 801-4 | 30000 | 35500 | 64 |
| 4.38 | 1090 | 2.5 | 320 | 6.3 | MN 3E 240 | | 801-4 | 30000 | 35500 | 64 |
| 3.2 | 1490 | 1.12 | 437 | 5.6 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |
| 3.72 | 1290 | 1.4 | 377 | 7.1 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |
| 4.66 | 1030 | 1.7 | 301 | 6 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |
| 5.48 | 870 | 2.36 | 255 | 6 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |
| 6.46 | 740 | 2.8 | 217 | 6 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |
| 7.8 | 610 | 3.35 | 179 | 6.3 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |
| 9.43 | 510 | 4 | 149 | 6.3 | MN 3E 201 | | 801-4 | 19000 | 22400 | 48 |

## TECHNICAL DATA

### $P_1$ = 0.55kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **4.66** | 1030 | 1.25 | 301 | 7.1 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **5.48** | 870 | 1.5 | 255 | 7.1 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **6.46** | 740 | 1.7 | 217 | 6.3 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **7.8** | 610 | 2 | 179 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **9.43** | 510 | 2.36 | 149 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **10.9** | 437 | 2.8 | 128 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **13.7** | 349 | 3.35 | 102 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **16.2** | 296 | 4 | 86.6 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **19.9** | 240 | 4.75 | 70.2 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |
| **23.5** | 203 | 5.3 | 59.6 | 6 | **MN 3E 200** | | **801-4** | 15000 | 18000 | 45 |

### $P_1$ = 0.75kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.493** | 12930 | 1.4 | 2840 | 9.5 | | **MN 4E 355** | **802-4** | 71000 | 80000 | 196 |
| **0.585** | 10900 | 1.9 | 2393 | 9.5 | | **MN 4E 355** | **802-4** | 71000 | 80000 | 196 |
| **0.718** | 8880 | 2.36 | 1950 | 9.5 | | **MN 4E 355** | **802-4** | 71000 | 80000 | 196 |
| **0.718** | 8880 | 2 | 1950 | 8.5 | | **MN 4E 354** | **802-4** | 71000 | 80000 | 179 |
| **0.834** | 7650 | 2.36 | 1679 | 8.5 | | **MN 4E 354** | **802-4** | 71000 | 80000 | 179 |
| **0.921** | 6920 | 2.12 | 1519 | 8 | **MN 4E 353** | | **802-4** | 60000 | 67000 | 163 |
| **1.09** | 5870 | 2.5 | 1290 | 8 | **MN 4E 353** | | **802-4** | 60000 | 67000 | 163 |
| **1.26** | 5060 | 3 | 1111 | 8 | **MN 4E 353** | | **802-4** | 60000 | 67000 | 163 |
| **1.58** | 4040 | 3.75 | 887 | 8 | **MN 4E 353** | | **802-4** | 60000 | 67000 | 171 |
| **1.8** | 3540 | 2.8 | 778 | 6.7 | **MN 4E 280** | | **802-4** | 47500 | 53000 | 109 |
| **2.09** | 3050 | 3.15 | 670 | 6.7 | **MN 4E 280** | | **802-4** | 47500 | 53000 | 109 |
| **1.57** | 4070 | 1.6 | 894 | 5.6 | **MN 4E 241** | | **802-4** | 30000 | 35500 | 79 |
| **1.89** | 3370 | 1.9 | 740 | 5.6 | **MN 4E 241** | | **802-4** | 30000 | 35500 | 79 |
| **2.29** | 2790 | 2.24 | 613 | 5.6 | **MN 4E 241** | | **802-4** | 30000 | 35500 | 79 |
| **2.65** | 2400 | 2.5 | 527 | 5.6 | **MN 4E 241** | | **802-4** | 30000 | 35500 | 79 |
| **3.32** | 1920 | 3.15 | 421 | 5.6 | **MN 4E 241** | | **802-4** | 30000 | 35500 | 79 |
| **3.2** | 1630 | 3.55 | 357 | 5.6 | **MN 4E 241** | | **802-4** | 30000 | 35500 | 79 |
| **3.92** | 2040 | 1.9 | 437 | 7.1 | **MN 3E 241** | | **802-4** | 30000 | 35500 | 72 |
| **3.77** | 1730 | 2.24 | 371 | 7.5 | **MN 3E 241** | | **802-4** | 30000 | 35500 | 72 |
| **5.29** | 1230 | 3.75 | 265 | 7.5 | **MN 3E 241** | | **802-4** | 30000 | 35500 | 80 |
| **2.29** | 2790 | 1.32 | 613 | 5.3 | **MN 4E 240** | | **802-4** | 30000 | 35500 | 71 |
| **2.65** | 2400 | 1.5 | 527 | 5.3 | **MN 4E 240** | | **802-4** | 30000 | 35500 | 71 |
| **3.32** | 1920 | 1.9 | 421 | 5.3 | **MN 4E 240** | | **802-4** | 30000 | 35500 | 71 |
| **3.92** | 1630 | 2.24 | 357 | 5.3 | **MN 4E 240** | | **802-4** | 30000 | 35500 | 71 |
| **4.84** | 1320 | 2.65 | 290 | 5.3 | **MN 4E 240** | | **802-4** | 30000 | 35500 | 71 |
| **3.2** | 2040 | 1.18 | 437 | 7.1 | **MN 3E 240** | | **802-4** | 30000 | 35500 | 64 |
| **3.77** | 1730 | 1.32 | 371 | 7.1 | **MN 3E 240** | | **802-4** | 30000 | 35500 | 64 |
| **4.38** | 1490 | 1.9 | 320 | 7.1 | **MN 3E 240** | | **802-4** | 30000 | 35500 | 64 |
| **5.29** | 1230 | 2.24 | 265 | 7.1 | **MN 3E 240** | | **802-4** | 30000 | 35500 | 64 |
| **6.62** | 980 | 3.15 | 211 | 7.1 | **MN 3E 240** | | **802-4** | 30000 | 35500 | 64 |

## TECHNICAL DATA

### $P_1$ = 0.75kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.72** | 1750 | 1 | 377 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **4.66** | 1400 | 1.25 | 301 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **5.48** | 1190 | 1.8 | 255 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **6.46** | 1010 | 2.12 | 217 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **7.8** | 840 | 2.5 | 179 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **9.43** | 690 | 3 | 149 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **10.9** | 600 | 3.35 | 128 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **13.7** | 475 | 4 | 102 | 6.3 | **MN 3E 201** | | **802-4** | 19000 | 22400 | 48 |
| **4.66** | 1400 | 0.95 | 301 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **5.48** | 1190 | 1.06 | 255 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **6.46** | 1010 | 1.25 | 217 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **7.8** | 840 | 1.5 | 179 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **9.43** | 690 | 1.8 | 149 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **10.9** | 600 | 2 | 128 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **13.7** | 475 | 2.5 | 102 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **16.2** | 403 | 2.8 | 86.6 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **19.9** | 327 | 3.35 | 70.2 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **23.5** | 277 | 4 | 59.6 | 6 | **MN 3E 200** | | **802-4** | 15000 | 18000 | 45 |
| **27.3** | 246 | 2.8 | 51.2 | 6.7 | **MN 2E 200** | | **802-4** | 15000 | 18000 | 38 |
| **31.7** | 212 | 4 | 44.1 | 6.7 | **MN 2E 200** | | **802-4** | 15000 | 18000 | 38 |
| **112** | 59 | 5.37 | 12.5 | 8.7 | **MN 1E 200** | | **802-4** | 15000 | 18000 | 38 |

### $P_1$ = 1.1kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.718** | 13020 | 2.36 | 1950 | 11.2 | | **MN 4E 428** | **90S-4** | 90000 | 97500 | 268 |
| **0.718** | 13020 | 1.6 | 1950 | 9.5 | | **MN 4E 355** | **90S-4** | 71000 | 80000 | 204 |
| **0.921** | 10150 | 2.36 | 1519 | 9.2 | | **MN 4E 355** | **90S-4** | 71000 | 80000 | 204 |
| **1.11** | 8460 | 2.8 | 1266 | 9.5 | | **MN 4E 355** | **90S-4** | 71000 | 80000 | 204 |
| **1.04** | 8950 | 2 | 1341 | 8.5 | | **MN 4E 354** | **90S-4** | 71000 | 80000 | 204 |
| **1.23** | 7600 | 2.36 | 1138 | 8.5 | | **MN 4E 354** | **90S-4** | 71000 | 80000 | 204 |
| **1.26** | 7420 | 2 | 1111 | 8 | **MN4E 353** | | **90S-4** | 60000 | 67000 | 171 |
| **1.58** | 5920 | 2.5 | 887 | 8 | **MN 4E 353** | | **90S-4** | 60000 | 67000 | 171 |
| **1.91** | 4900 | 0.9 | 734 | 8 | **MN 4E 353** | | **90S-4** | 60000 | 67000 | 171 |
| **2.3** | 4060 | 3.55 | 608 | 8 | **MN 4E 353** | | **90S-4** | 60000 | 67000 | 171 |
| **2.09** | 4470 | 3.55 | 670 | 6.7 | **MN 4E 280** | | **90S-4** | 47500 | 53000 | 117 |
| **3.16** | 2950 | 3.15 | 442 | 6.7 | **MN 4E 280** | | **90S-4** | 47500 | 53000 | 117 |
| **2.29** | 4090 | 2.12 | 613 | 5.6 | **MN 4E 241** | | **90S-4** | 30000 | 35500 | 87 |
| **2.65** | 3520 | 1.7 | 527 | 5.6 | **MN 4E 241** | | **90S-4** | 30000 | 35500 | 87 |
| **3.32** | 2810 | 2.12 | 421 | 5.6 | **MN 4E 241** | | **90S-4** | 30000 | 35500 | 87 |
| **3.92** | 2390 | 2.5 | 357 | 5.6 | **MN 4E 241** | | **90S-4** | 30000 | 35500 | 87 |
| **3.2** | 2990 | 1.32 | 437 | 7.5 | **MN 3E 241** | | **90S-4** | 30000 | 35500 | 80 |
| **3.32** | 2810 | 1.32 | 421 | 5.3 | **MN 4E 240** | | **90S-4** | 30000 | 35500 | 79 |
| **3.92** | 2390 | 1.5 | 357 | 5.3 | **MN 4E 240** | | **90S-4** | 30000 | 35500 | 79 |
| **3.77** | 2540 | 0.95 | 371 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |

## TECHNICAL DATA

### $P_1$ = 1.1kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **4.84** | 1930 | 3 | 290 | 5.6 | **MN 4E 241** | | **90S-4** | 30000 | 35500 | 87 |
| **3.77** | 2540 | 1.5 | 371 | 7.5 | **MN 3E 241** | | **90S-4** | 30000 | 35500 | 80 |
| **4.38** | 2180 | 2.12 | 320 | 7.5 | **MN 3E 241** | | **90S-4** | 30000 | 35500 | 80 |
| **5.29** | 1810 | 2.5 | 265 | 7.5 | **MN 3E 241** | | **90S-4** | 30000 | 35500 | 80 |
| **6.62** | 1440 | 3.55 | 211 | 7.5 | **MN 3E 241** | | **90S-4** | 30000 | 35500 | 80 |
| **7.8** | 1230 | 4 | 179 | 7.5 | **MN 3E 241** | | **90S-4** | 30000 | 35500 | 80 |
| **4.84** | 1930 | 1.8 | 290 | 5.3 | **MN 4E 240** | | **90S-4** | 30000 | 35500 | 79 |
| **4.38** | 2180 | 1.32 | 320 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |
| **5.29** | 1810 | 1.6 | 265 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |
| **6.62** | 1440 | 2.12 | 211 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |
| **7.8** | 1230 | 2.5 | 179 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |
| **9.43** | 1010 | 2.8 | 149 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |
| **10.9** | 870 | 3.75 | 128 | 7.1 | **MN 3E 240** | | **90S-4** | 30000 | 35500 | 72 |
| **5.48** | 1740 | 1.18 | 255 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **6.46** | 1480 | 1.4 | 217 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **7.8** | 1230 | 1.7 | 179 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **10.9** | 870 | 2.24 | 128 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **9.43** | 1010 | 2 | 149 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **13.7** | 700 | 2.8 | 102 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **16.2** | 590 | 3.15 | 86.6 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **19.9** | 479 | 4 | 70.2 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **23.5** | 407 | 4.5 | 59.6 | 6.3 | **MN 3E 201** | | **90S-4** | 19000 | 22400 | 56 |
| **7.8** | 1230 | 1 | 179 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **9.43** | 1010 | 1.18 | 149 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **10.9** | 870 | 1.4 | 128 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **13.7** | 700 | 1.7 | 102 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **16.2** | 590 | 1.9 | 86.6 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **19.9** | 479 | 2.36 | 70.2 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **23.5** | 407 | 2.65 | 59.6 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **27.7** | 345 | 3.15 | 50.5 | 6 | **MN 3E 200** | | **90S-4** | 15000 | 18000 | 53 |
| **27.3** | 361 | 1.9 | 51.2 | 6.7 | **MN 2E 200** | | **90S-4** | 15000 | 18000 | 46 |
| **31.7** | 311 | 2.8 | 44.1 | 6.7 | **MN 2E 200** | | **90S-4** | 15000 | 18000 | 46 |
| **39.7** | 248 | 4.25 | 35.2 | 6.7 | **MN 2E 200** | | **90S-4** | 15000 | 18000 | 46 |
| **46.8** | 211 | 4.75 | 29.9 | 6.7 | **MN 2E 200** | | **90S-4** | 15000 | 18000 | 46 |
| **56.6** | 175 | 5.6 | 24.8 | 6.7 | **MN 2E 200** | | **90S-4** | 15000 | 18000 | 46 |
| **112** | 87 | 3.65 | 12.5 | 8.7 | **MN 1E 200** | | **90S-4** | 15000 | 18000 | 38 |
| **125** | 78 | 4.67 | 11.2 | 8.7 | **MN 1E 200** | | **90S-4** | 15000 | 18000 | 38 |
| **140** | 70 | 5.91 | 10 | 8.7 | **MN 1E 200** | | **90S-4** | 15000 | 18000 | 38 |

### $P_1$ = 1.5kW $n_1$=1400rpm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **0.821** | 15540 | 2.65 | 1706 | 13.2 | **MN 4E 429** | **90L-4** | 100000 | 106000 | 323 |
| **0.862** | 14800 | 2 | 1625 | 11.2 | **MN 4E 428** | **90L-4** | 90000 | 97500 | 268 |

## TECHNICAL DATA

**$P_1$= 1.5kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| 1.11 | 11530 | 2.65 | 1266 | 11.2 | | MN 4E 428 | 90L-4 | 90000 | 97500 | 268 |
| 1.11 | 11530 | 2 | 1266 | 9.5 | | MN 4E 355 | 90L-4 | 71000 | 80000 | 204 |
| 1.3 | 9790 | 2.36 | 1075 | 9.5 | | MN 4E 355 | 90L-4 | 71000 | 80000 | 204 |
| 1.57 | 8100 | 3 | 890 | 9.5 | | MN 4E 355 | 90L-4 | 71000 | 80000 | 204 |
| 1.52 | 8370 | 2.12 | 919 | 8.5 | | MN 4E 354 | 90L-4 | 71000 | 80000 | 187 |
| 1.91 | 6680 | 2.8 | 734 | 8.5 | | MN 4E 354 | 90L-4 | 71000 | 80000 | 187 |
| 1.91 | 6680 | 2.12 | 734 | 8 | MN 4E 353 | | 90L-4 | 60000 | 67000 | 171 |
| 2.3 | 5530 | 2.5 | 608 | 8 | MN 4E 353 | | 90L-4 | 71000 | 80000 | 171 |
| 2.68 | 4760 | 3 | 523 | 8 | MN 4E 353 | | 90L-4 | 71000 | 80000 | 171 |
| 3.35 | 3800 | 3.55 | 418 | 8 | MN 4E 353 | | 90L-4 | 60000 | 67000 | 171 |
| 3.16 | 4030 | 2.24 | 442 | 6.7 | MN 4E 280 | | 90L-4 | 47500 | 53000 | 117 |
| 3.73 | 3420 | 2.65 | 375 | 6.7 | MN 4E 280 | | 90L-4 | 47500 | 53000 | 117 |
| 3.77 | 3460 | 1.8 | 371 | 9.5 | MN 3E 280 | | 90L-4 | 47500 | 53000 | 109 |
| 4.52 | 2880 | 2.5 | 310 | 9.5 | MN 3E 280 | | 90L-4 | 47500 | 53000 | 109 |
| 5.33 | 2450 | 2.8 | 263 | 9.5 | MN 3E 280 | | 90L-4 | 47500 | 53000 | 109 |
| 3.32 | 3840 | 1.5 | 421 | 5.6 | MN 4E 241 | | 90L-4 | 30000 | 35500 | 87 |
| 3.92 | 3250 | 1.8 | 357 | 5.6 | MN 4E 241 | | 90L-4 | 30000 | 35500 | 87 |
| 4.84 | 2640 | 2.12 | 290 | 5.6 | MN 4E 241 | | 90L-4 | 30000 | 35500 | 87 |
| 3.2 | 4070 | 0.95 | 437 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 3.77 | 3460 | 1.12 | 371 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 4.38 | 2980 | 1.6 | 320 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 5.29 | 2460 | 1.9 | 265 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 6.62 | 1970 | 2.5 | 211 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 7.8 | 1670 | 3 | 179 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 9.43 | 1380 | 3.35 | 149 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 10.9 | 1190 | 4.25 | 128 | 7.5 | MN 3E 241 | | 90L-4 | 30000 | 35500 | 80 |
| 3.92 | 3250 | 1.12 | 357 | 5.3 | MN 4E 240 | | 90L-4 | 30000 | 35500 | 79 |
| 4.84 | 2640 | 1.32 | 290 | 5.3 | MN 4E 240 | | 90L-4 | 30000 | 35500 | 79 |
| 4.38 | 2980 | 0.95 | 320 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 5.29 | 2460 | 1.12 | 265 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 6.62 | 1970 | 1.6 | 211 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 7.8 | 1670 | 1.8 | 179 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 9.43 | 1380 | 2.12 | 149 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 10.9 | 1190 | 2.65 | 128 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 13.7 | 950 | 3.35 | 102 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 6.46 | 2020 | 1.06 | 217 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 7.8 | 1670 | 1.25 | 179 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 9.43 | 1380 | 1.5 | 149 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 10.9 | 1190 | 1.7 | 128 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 13.7 | 950 | 2 | 102 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 9.43 | 1380 | 0.9 | 149 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |
| 10.9 | 1190 | 1 | 128 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |
| 13.7 | 950 | 1.25 | 102 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |

## TECHNICAL DATA

### $P_1$ = 1.5kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| 16.2 | 810 | 3.75 | 86.6 | 7.1 | MN 3E 240 | | 90L-4 | 30000 | 35500 | 72 |
| 16.2 | 810 | 2.36 | 86.6 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 19.9 | 650 | 2.8 | 70.2 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 23.5 | 550 | 3.35 | 59.6 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 27.7 | 471 | 3.55 | 50.5 | 6.3 | MN 3E 201 | | 90L-4 | 19000 | 22400 | 56 |
| 27.3 | 493 | 2.5 | 51.2 | 7.1 | MN 2E 201 | | 90L-4 | 19000 | 22400 | 48 |
| 31.7 | 424 | 3.55 | 44.1 | 7.1 | MN 2E 201 | | 90L-4 | 19000 | 22400 | 48 |
| 16.2 | 810 | 1.4 | 86.6 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |
| 19.9 | 650 | 1.7 | 70.2 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |
| 23.5 | 550 | 2 | 59.6 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |
| 27.7 | 471 | 2.36 | 50.5 | 6 | MN 3E 200 | | 90L-4 | 15000 | 18000 | 53 |
| 27.3 | 493 | 1.4 | 51.2 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 31.7 | 424 | 2 | 44.1 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 39.7 | 339 | 3.15 | 35.2 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 46.8 | 288 | 3.55 | 29.9 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 56.6 | 238 | 4 | 24.8 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 65.7 | 205 | 4.5 | 21.3 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 82.3 | 164 | 5.3 | 17 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 97 | 139 | 5.6 | 14.4 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 114 | 118 | 5.3 | 12.3 | 6.7 | MN 2E 200 | | 90L-4 | 15000 | 18000 | 46 |
| 112 | 119 | 2.67 | 12.5 | 8.7 | MN 1E 200 | | 90L-4 | 15000 | 18000 | 40 |
| 125 | 107 | 3.41 | 11.2 | 8.7 | MN 1E 200 | | 90L-4 | 15000 | 18000 | 40 |
| 140 | 95 | 4.31 | 10 | 8.7 | MN 1E 200 | | 90L-4 | 15000 | 18000 | 40 |
| 156 | 86 | 5.82 | 9 | 8.7 | MN 1E 200 | | 90L-4 | 15000 | 18000 | 40 |
| 112 | 116 | 4.5 | 12.5 | 8.7 | MN 1E 200 | | 90L-4 | 15000 | 18000 | 40 |
| 125 | 104 | 5.9 | 11.2 | 8.7 | MN 1E 200 | | 90L-4 | 15000 | 18000 | 40 |

### $P_1$ = 2.2kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.02 | 18260 | 2.8 | 1367 | 14.5 | | MN 4E 445 | 100L1-4 | 112000 | 118000 | 402 |
| 1.24 | 15080 | 2.5 | 1129 | 13.2 | | MN 4E 429 | 100L1-4 | 100000 | 106000 | 342 |
| 1.3 | 14360 | 2.12 | 1075 | 11.2 | | MN 4E 428 | 100L1-4 | 90000 | 97500 | 287 |
| 1.57 | 11880 | 2.5 | 890 | 11.2 | | MN 4E 428 | 100L1-4 | 90000 | 97500 | 280 |
| 1.57 | 11880 | 2.12 | 890 | 9.5 | | MN 4E 355 | 100L1-4 | 71000 | 80000 | 215 |
| 1.82 | 10300 | 2.36 | 771 | 9.5 | | MN 4E 355 | 100L1-4 | 71000 | 80000 | 215 |
| 2.19 | 8520 | 2.8 | 638 | 9.5 | | MN 4E 355 | 100L1-4 | 71000 | 80000 | 215 |
| 1.91 | 9800 | 2 | 734 | 8.5 | | MN 4E 354 | 100L1-4 | 71000 | 80000 | 199 |
| 2.3 | 8110 | 2.24 | 608 | 8.5 | | MN 4E 354 | 100L1-4 | 71000 | 80000 | 199 |
| 2.68 | 6990 | 2.65 | 523 | 8.5 | | MN 4E 354 | 100L1-4 | 71000 | 80000 | 199 |
| 2.68 | 6990 | 2 | 523 | 8 | MN 4E 353 | | 100L1-4 | 60000 | 67000 | 183 |
| 3.35 | 5580 | 2.5 | 418 | 8 | MN 4E 353 | | 100L1-4 | 60000 | 67000 | 199 |
| 3.95 | 4730 | 2.8 | 354 | 8 | MN 4E 353 | | 100L1-4 | 60000 | 67000 | 199 |
| 3.63 | 5270 | 1.7 | 386 | 11.8 | MN 3E 353 | | 100L1-4 | 60000 | 67000 | 176 |

## TECHNICAL DATA

**$P_1$= 2.2kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **4.31** | 4440 | 2.36 | 325 | 11.2 | **MN 3E 353** | | **100L1-4** | 60000 | 67000 | 176 |
| **5.42** | 3450 | 2.5 | 258 | 6.7 | **MN 4E 280** | | **100L1-4** | 47500 | 53000 | 129 |
| **4.6** | 4060 | 2.12 | 304 | 6.7 | **MN 4E 280** | | **100L1-4** | 47500 | 53000 | 129 |
| **4.52** | 4230 | 1.7 | 310 | 9.5 | **MN 3E 280** | | **100L1-4** | 47500 | 53000 | 121 |
| **5.33** | 3590 | 1.9 | 263 | 9.5 | **MN 3E 280** | | **100L1-4** | 47500 | 53000 | 121 |
| **6.31** | 3030 | 2.36 | 222 | 9.5 | **MN 3E 280** | | **100L1-4** | 47500 | 53000 | 121 |
| **8.97** | 2130 | 3.35 | 156 | 9.5 | **MN 3E 280** | | **100L1-4** | 47500 | 53000 | 121 |
| **4.84** | 3870 | 1.5 | 290 | 5.6 | **MN 4E 241** | | **100L1-4** | 30000 | 35500 | 99 |
| **5.29** | 3610 | 1.25 | 265 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **6.62** | 2890 | 1.7 | 211 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **7.8** | 2450 | 2 | 179 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **9.43** | 2030 | 2.36 | 149 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **10.9** | 1750 | 3 | 128 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **13.7** | 1390 | 3.55 | 102 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **16.2** | 1180 | 4.25 | 86.6 | 7.5 | **MN 3E 241** | | **100L1-4** | 30000 | 35500 | 92 |
| **6.62** | 2890 | 16 | 211 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **7.8** | 2450 | 1.25 | 179 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **9.43** | 2030 | 1.4 | 149 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **10.9** | 1750 | 1.8 | 128 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **13.7** | 1390 | 2.24 | 102 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **16.2** | 1180 | 2.5 | 86.6 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **19.9** | 960 | 3.15 | 70.2 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **23.5** | 810 | 3.55 | 59.6 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **27.7** | 690 | 3.55 | 50.5 | 7.1 | **MN 3E 240** | | **100L1-4** | 30000 | 35500 | 84 |
| **27.3** | 720 | 2.36 | 51.2 | 9 | **MN 2E 240** | | **100L1-4** | 30000 | 35500 | 77 |
| **32.2** | 610 | 3 | 43.5 | 9 | **MN 2E 240** | | **100L1-4** | 30000 | 35500 | 77 |
| **37.4** | 530 | 3.55 | 37.5 | 9 | **MN 2E 240** | | **100L1-4** | 30000 | 35500 | 77 |
| **9.43** | 2030 | 1 | 149 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **10.9** | 1750 | 1.12 | 128 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **13.7** | 1390 | 1.4 | 102 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **16.2** | 1180 | 1.6 | 86.6 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **19.9** | 960 | 2 | 70.2 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **23.5** | 810 | 2.24 | 59.6 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **27.7** | 690 | 2.5 | 50.5 | 6.3 | **MN 3E 201** | | **100L1-4** | 19000 | 22400 | 68 |
| **27.3** | 720 | 1.7 | 51.2 | 7.1 | **MN 2E 201** | | **100L1-4** | 19000 | 22400 | 60 |
| **31.7** | 620 | 2.36 | 44.1 | 7.1 | **MN 2E 201** | | **100L1-4** | 19000 | 22400 | 60 |
| **37.4** | 530 | 2.65 | 37.5 | 7.1 | **MN 2E 201** | | **100L1-4** | 19000 | 22400 | 60 |
| **16.2** | 1180 | 0.95 | 86.6 | 6 | **MN 3E 200** | | **100L1-4** | 15000 | 18000 | 65 |
| **19.9** | 960 | 1.18 | 70.2 | 6 | **MN 3E 200** | | **100L1-4** | 15000 | 18000 | 65 |
| **23.5** | 810 | 1.32 | 59.6 | 6 | **MN 3E 200** | | **100L1-4** | 15000 | 18000 | 65 |
| **27.7** | 690 | 1.6 | 50.5 | 6 | **MN 3E 200** | | **100L1-4** | 15000 | 18000 | 65 |
| **27.3** | 720 | 0.95 | 51.2 | 6.7 | **MN 2E 200** | | **100L1-4** | 15000 | 18000 | 57 |
| **31.7** | 620 | 1.4 | 44.1 | 6.7 | **MN 2E 200** | | **100L1-4** | 15000 | 18000 | 57 |
| **39.7** | 497 | 2.12 | 35.2 | 6.7 | **MN 2E 200** | | **100L1-4** | 15000 | 18000 | 57 |

## TECHNICAL DATA

### $P_1$ = 2.2kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| 112 | 170 | 3.89 | 12.5 | 16.4 | MN 1E 280 | | 100L1-4 | 47500 | 53000 | 110 |
| 112 | 170 | 3.07 | 12.5 | 13.5 | MN 1E 240 | | 100L1-4 | 30000 | 35500 | 66 |
| 125 | 152 | 4.02 | 11.2 | 13.5 | MN 1E 240 | | 100L1-4 | 30000 | 35500 | 66 |
| 46.8 | 422 | 3.55 | 29.9 | 7.1 | MN 2E 201 | | 100L1-4 | 19000 | 22400 | 60 |
| 46.8 | 422 | 2.36 | 29.9 | 6.7 | MN 2E 200 | | 100L1-4 | 15000 | 18000 | 57 |
| 56.6 | 349 | 2.8 | 24.8 | 6.7 | MN 2E 200 | | 100L1-4 | 15000 | 18000 | 57 |
| 65.7 | 301 | 3 | 21.3 | 6.7 | MN 2E 200 | | 100L1-4 | 15000 | 18000 | 57 |
| 82.3 | 240 | 3.55 | 17 | 6.7 | MN 2E 200 | | 100L1-4 | 15000 | 18000 | 57 |
| 97 | 204 | 4 | 14.4 | 6.7 | MN 2E 200 | | 100L1-4 | 15000 | 18000 | 57 |
| 114 | 173 | 3.55 | 12.3 | 6.7 | MN 2E 200 | | 100L1-4 | 15000 | 18000 | 57 |
| 112 | 175 | 1.81 | 12.5 | 8.7 | MN 1E 200 | | 100L1-4 | 15000 | 18000 | 44 |
| 125 | 157 | 2.32 | 11.2 | 8.7 | MN 1E 200 | | 100L1-4 | 15000 | 18000 | 44 |
| 140 | 140 | 2.93 | 10 | 8.7 | MN 1E 200 | | 100L1-4 | 15000 | 18000 | 44 |
| 156 | 126 | 3.95 | 9 | 8.7 | MN 1E 200 | | 100L1-4 | 15000 | 18000 | 44 |
| 175 | 112 | 5.05 | 8 | 8.7 | MN 1E 200 | | 100L1-4 | 15000 | 18000 | 44 |

### $P_1$ = 3kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.01 | 25290 | 2.36 | 1388 | 15.6 | | MN 4E 446 | 100L2-4 | 125000 | 132000 | 411 |
| 1.24 | 20600 | 2.36 | 1131 | 14.5 | | MN 4E 445 | 100L2-4 | 112000 | 118000 | 395 |
| 1.5 | 17020 | 2.5 | 934 | 13.2 | | MN 4E 429 | 100L2-4 | 100000 | 106000 | 335 |
| 1.92 | 13260 | 3.55 | 728 | 13.2 | | MN 4E 429 | 100L2-4 | 100000 | 106000 | 335 |
| 1.82 | 14040 | 2.12 | 771 | 11.2 | | MN 4E 428 | 100L2-4 | 90000 | 97500 | 287 |
| 2.19 | 11620 | 2.5 | 638 | 11.2 | | MN 4E 428 | 100L2-4 | 90000 | 97500 | 287 |
| 2.19 | 11620 | 2 | 638 | 9.5 | | MN 4E 355 | 100L2-4 | 71000 | 80000 | 215 |
| 2.55 | 10010 | 2.36 | 550 | 9.5 | | MN 4E 355 | 100L2-4 | 71000 | 80000 | 215 |
| 2.68 | 9530 | 2 | 523 | 8.5 | | MN 4E 354 | 100L2-4 | 71000 | 80000 | 199 |
| 3.8 | 6710 | 2.36 | 368 | 8.5 | | MN 4E 354 | 100L2-4 | 71000 | 80000 | 199 |
| 3.63 | 7180 | 1.8 | 386 | 11.8 | | MN 3E 354 | 100L2-4 | 71000 | 80000 | 192 |
| 4.39 | 5940 | 2.12 | 319 | 11.8 | | MN 3E 354 | 100L2-4 | 71000 | 80000 | 192 |
| 5.17 | 5050 | 2.36 | 271 | 11.8 | | MN 3E 354 | 100L2-4 | 71000 | 80000 | 192 |
| 3.35 | 7610 | 1.8 | 418 | 8.8 | MN 4E 353 | | 100L2-4 | 60000 | 67000 | 183 |
| 3.95 | 6450 | 2.12 | 354 | 8.8 | MN 4E 353 | | 100L2-4 | 60000 | 67000 | 183 |
| 4.66 | 5480 | 2.36 | 301 | 8.8 | MN 4E 353 | | 100L2-4 | 60000 | 67000 | 183 |
| 5.41 | 4720 | 2.8 | 259 | 8.8 | MN 4E 353 | | 100L2-4 | 60000 | 67000 | 183 |
| 3.63 | 7180 | 1.25 | 386 | 11.2 | MN 3E 353 | | 100L2-4 | 60000 | 67000 | 176 |
| 4.31 | 6050 | 1.7 | 325 | 11.2 | MN 3E 353 | | 100L2-4 | 60000 | 67000 | 176 |
| 5.07 | 5140 | 2 | 276 | 11.2 | MN 3E 353 | | 100L2-4 | 60000 | 67000 | 176 |
| 6.13 | 4250 | 2.5 | 228 | 11.2 | MN 3E 353 | | 100L2-4 | 60000 | 67000 | 176 |
| 6.31 | 4130 | 1.8 | 222 | 9.5 | MN 3E 280 | | 100L2-4 | 47500 | 53000 | 121 |
| 6.62 | 3940 | 1.25 | 211 | 7.5 | MN 3E 241 | | 100L2-4 | 30000 | 35500 | 92 |
| 7.8 | 3340 | 1.5 | 179 | 7.5 | MN 3E 241 | | 100L2-4 | 30000 | 35500 | 92 |

## TECHNICAL DATA

**$P_1$= 3kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **7.87** | 3310 | 3.55 | 178 | 9.5 | **MN 3E 353** | | **100L2-4** | 60000 | 67000 | 176 |
| **9.51** | 2740 | 4.25 | 147 | 11.2 | **MN 3E 353** | | **100L2-4** | 60000 | 67000 | 176 |
| **7.43** | 3510 | 2.12 | 189 | 9.5 | **MN 3E 280** | | **100L2-4** | 47500 | 53000 | 121 |
| **8.97** | 2910 | 2.5 | 156 | 9.5 | **MN 3E 280** | | **100L2-4** | 47500 | 53000 | 121 |
| **10.4** | 2500 | 3.15 | 134 | 9.5 | **MN 3E 280** | | **100L2-4** | 47500 | 53000 | 121 |
| **13.1** | 2000 | 4 | 107 | 9.5 | **MN 3E 280** | | **100L2-4** | 47500 | 53000 | 121 |
| **9.43** | 2770 | 1.7 | 149 | 7.5 | **MN 3E 241** | | **100L2-4** | 30000 | 35500 | 92 |
| **10.9** | 2380 | 2.12 | 128 | 7.5 | **MN 3E 241** | | **100L2-4** | 30000 | 35500 | 92 |
| **13.7** | 1900 | 2.65 | 102 | 7.5 | **MN 3E 241** | | **100L2-4** | 30000 | 35500 | 92 |
| **16.2** | 1610 | 3.15 | 86.6 | 7.5 | **MN 3E 241** | | **100L2-4** | 30000 | 35500 | 92 |
| **19.9** | 1310 | 3.75 | 70.2 | 7.5 | **MN 3E 241** | | **100L2-4** | 30000 | 35500 | 92 |
| **23.5** | 1110 | 4.25 | 59.6 | 7.5 | **MN 3E 241** | | **100L2-4** | 30000 | 35500 | 92 |
| **27.3** | 990 | 3.15 | 51.2 | 9.5 | **MN 2E 241** | | **100L2-4** | 30000 | 35500 | 85 |
| **32.2** | 840 | 3.55 | 43.5 | 9.5 | **MN 2E 241** | | **100L2-4** | 30000 | 35500 | 85 |
| **37.4** | 720 | 4.75 | 37.5 | 9.5 | **MN 2E 241** | | **100L2-4** | 30000 | 35500 | 85 |
| **9.43** | 2770 | 1.06 | 149 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **10.9** | 2380 | 1.32 | 128 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **13.7** | 1900 | 1.6 | 102 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **16.2** | 1610 | 1.9 | 86.6 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **19.9** | 1310 | 2.24 | 70.2 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **23.5** | 1110 | 2.65 | 59.6 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **27.7** | 940 | 2.65 | 50.5 | 7.1 | **MN 3E 240** | | **100L2-4** | 30000 | 35500 | 84 |
| **27.3** | 990 | 1.7 | 51.2 | 9 | **MN 2E 240** | | **100L2-4** | 30000 | 35500 | 77 |
| **32.2** | 840 | 2.12 | 43.5 | 9 | **MN 2E 240** | | **100L2-4** | 30000 | 35500 | 77 |
| **37.4** | 720 | 2.65 | 37.5 | 9 | **MN 2E 240** | | **100L2-4** | 30000 | 35500 | 77 |
| **45.2** | 600 | 3.55 | 31 | 9 | **MN 2E 240** | | **100L2-4** | 30000 | 35500 | 77 |
| **13.7** | 1900 | 1 | 102 | 6.3 | **MN 3E 201** | | **100L2-4** | 19000 | 22400 | 68 |
| **16.2** | 1610 | 1.18 | 86.6 | 6.3 | **MN 3E 201** | | **100L2-4** | 19000 | 22400 | 68 |
| **19.9** | 1310 | 1.4 | 70.2 | 6.3 | **MN 3E 201** | | **100L2-4** | 19000 | 22400 | 68 |
| **23.5** | 1110 | 1.7 | 59.6 | 6.3 | **MN 3E 201** | | **100L2-4** | 19000 | 22400 | 68 |
| **27.7** | 940 | 1.8 | 50.5 | 6.3 | **MN 3E 201** | | **100L2-4** | 19000 | 22400 | 68 |
| **27.3** | 990 | 1.25 | 51.2 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **31.7** | 850 | 1.7 | 44.1 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **37.4** | 720 | 1.9 | 37.5 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **46.8** | 580 | 2.65 | 29.9 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **56.6** | 476 | 3.35 | 24.8 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **65.7** | 410 | 3.75 | 21.3 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **23.5** | 1110 | 1 | 59.6 | 6.7 | **MN 3E 200** | | **100L2-4** | 15000 | 18000 | 65 |
| **27.7** | 940 | 1.18 | 50.5 | 6.7 | **MN 3E 200** | | **100L2-4** | 15000 | 18000 | 65 |
| **31.7** | 850 | 1 | 44.1 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **39.7** | 680 | 1.5 | 35.2 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **46.8** | 580 | 1.8 | 29.9 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **56.6** | 476 | | 24.8 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **65.7** | 410 | 2.24 | 21.3 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |

2

## TECHNICAL DATA

### $P_1$ = 3kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **112** | 232 | 4.70 | 12.5 | 22.8 | **MN 1E 353** | | **100L2-4** | 60000 | 67000 | 165 |
| **112** | 232 | 2.85 | 12.5 | 16.4 | **MN 1E 280** | | **100L2-4** | 47500 | 53000 | 114 |
| **125** | 208 | 4.6 | 11.2 | 16.4 | **MN 1E 280** | | **100L2-4** | 47500 | 53000 | 114 |
| **112** | 232 | 2.25 | 12.5 | 16.4 | **MN 1E 280** | | **100L2-4** | 47500 | 53000 | 114 |
| **125** | 208 | 2.95 | 11.2 | 13.5 | **MN 1E 240** | | **100L2-4** | 30000 | 35500 | 70 |
| **140** | 185 | 4.4 | 10 | 13.5 | **MN 1E 240** | | **100L2-4** | 30000 | 35500 | 70 |
| **156** | 167 | 5.2 | 9 | 13.5 | **MN 1E 240** | | **100L2-4** | 30000 | 35500 | 70 |
| **82.3** | 327 | 4.25 | 17 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **97** | 278 | 4.75 | 14.4 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **114** | 236 | 4.75 | 12.3 | 7.1 | **MN 2E 201** | | **100L2-4** | 19000 | 22400 | 60 |
| **82.3** | 327 | 2.65 | 17 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **97** | 278 | 2.8 | 14.4 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **114** | 236 | 2.65 | 12.3 | 6.7 | **MN 2E 200** | | **100L2-4** | 15000 | 18000 | 57 |
| **112** | 239 | 1.33 | 12.5 | 8.7 | **MN 1E 200** | | **100L2-4** | 15000 | 18000 | 70 |
| **125** | 214 | 1.7 | 11.2 | 8.7 | **MN 1E 200** | | **100L2-4** | 15000 | 18000 | 70 |
| **140** | 191 | 2.15 | 10 | 8.7 | **MN 1E 200** | | **100L2-4** | 15000 | 18000 | 70 |
| **156** | 172 | 2.9 | 9 | 8.7 | **MN 1E 200** | | **100L2-4** | 15000 | 18000 | 70 |
| **175** | 153 | 3.7 | 8 | 8.7 | **MN 1E 200** | | **100L2-4** | 15000 | 18000 | 70 |
| **197** | 136 | 5.5 | 7.1 | 8.7 | **MN 1E 200** | | **100L2-4** | 15000 | 18000 | 70 |

### $P_1$ = 4kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.984** | 34560 | 2.36 | 1423 | 19.5 | | **MN 4E 542** | **112M-4** | 150000 | 190000 | 627 |
| **1.26** | 26930 | 3 | 1109 | 19.5 | | **MN 4E 542** | **112M-4** | 150000 | 190000 | 627 |
| **1.47** | 23150 | 2.5 | 953 | 14.5 | | **MN 4E 445** | **112M-4** | 112000 | 118000 | 402 |
| **1.92** | 17680 | 2.65 | 728 | 13.2 | | **MN 4E 429** | **112M-4** | 100000 | 106000 | 342 |
| **2.32** | 14630 | 3 | 602 | 13.2 | | **MN 4E 429** | **112M-4** | 100000 | 106000 | 342 |
| **2.19** | 15500 | 1.9 | 638 | 11.2 | | **MN 4E 428** | **112M-4** | 90000 | 97500 | 287 |
| **2.55** | 13350 | 2.36 | 550 | 11.2 | | **MN 4E 428** | **112M-4** | 90000 | 97500 | 287 |
| **3.19** | 10650 | 3 | 439 | 11.2 | | **MN 4E 428** | **112M-4** | 90000 | 97500 | 287 |
| **2.55** | 13350 | 1.8 | 550 | 9.5 | | **MN 4E 355** | **112M-4** | 71000 | 80000 | 222 |
| **3.19** | 10650 | 2.12 | 439 | 9.5 | | **MN 4E 355** | **112M-4** | 71000 | 80000 | 222 |
| **3.76** | 9040 | 2.36 | 372 | 9.5 | | **MN 4E 355** | **112M-4** | 71000 | 80000 | 222 |
| **4.64** | 7330 | 2.8 | 302 | 9.5 | | **MN 4E 355** | **112M-4** | 71000 | 80000 | 222 |
| **4.21** | 8260 | 1.8 | 333 | 13.2 | | **MN 3E 355** | **112M-4** | 71000 | 80000 | 215 |
| **5** | 6960 | 2.36 | 280 | 13.2 | | **MN 3E 355** | **112M-4** | 71000 | 80000 | 215 |
| **3.8** | 8950 | 1.8 | 368 | 8.5 | | **MN 4E 354** | **112M-4** | 71000 | 80000 | 206 |
| **4.48** | 7590 | 2 | 313 | 8.5 | | **MN 4E 354** | **112M-4** | 71000 | 80000 | 206 |
| **5.28** | 6440 | 2.36 | 265 | 8.5 | | **MN 4E 354** | **112M-4** | 71000 | 80000 | 206 |
| **3.63** | 9580 | 1.32 | 386 | 11.8 | | **MN 3E 354** | **112M-4** | 71000 | 80000 | 199 |
| **4.39** | 7930 | 1.6 | 319 | 11.8 | | **MN 3E 354** | **112M-4** | 71000 | 80000 | 199 |
| **5.17** | 6730 | 1.8 | 271 | 11.8 | | **MN 3E 354** | **112M-4** | 71000 | 80000 | 199 |
| **6.13** | 5670 | 2.5 | 228 | 11.8 | | **MN 3E 354** | **112M-4** | 71000 | 80000 | 199 |
| **7.12** | 4880 | 3 | 197 | 11.8 | | **MN 3E 354** | **112M-4** | 71000 | 80000 | 199 |

## TECHNICAL DATA

**$P_1$= 4kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **5.41** | 6290 | 2 | 259 | 8.8 | **MN 4E 353** | | **112M-4** | 60000 | 67000 | 201 |
| **5.07** | 6850 | 1.5 | 276 | 11.2 | **MN 3E 353** | | **112M-4** | 60000 | 67000 | 183 |
| **6.13** | 5670 | 1.9 | 228 | 11.2 | **MN 3E 353** | | **112M-4** | 60000 | 67000 | 183 |
| **7.87** | 4420 | 2.65 | 178 | 11.2 | **MN 3E 353** | | **112M-4** | 60000 | 67000 | 183 |
| **9.51** | 3660 | 3.15 | 147 | 11.2 | **MN 3E 353** | | **112M-4** | 60000 | 67000 | 183 |
| **11** | 3150 | 3.75 | 127 | 11.2 | **MN 3E 353** | | **112M-4** | 60000 | 67000 | 183 |
| **8.97** | 3870 | 1.9 | 156 | 9.5 | **MN 3E 280** | | **112M-4** | 47500 | 53000 | 128 |
| **10.4** | 3340 | 2.36 | 134 | 9.5 | **MN 3E 280** | | **112M-4** | 47500 | 53000 | 128 |
| **13.1** | 2660 | 3 | 107 | 9.5 | **MN 3E 280** | | **112M-4** | 47500 | 53000 | 128 |
| **15.2** | 2290 | 3.35 | 92.4 | 9.5 | **MN 3E 280** | | **112M-4** | 47500 | 53000 | 128 |
| **9.43** | 3690 | 1.25 | 149 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **10.9** | 3180 | 1.6 | 128 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **13.7** | 2530 | 2 | 102 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **16.2** | 2150 | 2.36 | 86.6 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **19.9** | 1740 | 2.8 | 70.2 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **23.5** | 1480 | 3.15 | 59.6 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **27.7** | 1250 | 3.55 | 50.5 | 7.5 | **MN 3E 241** | | **112M-4** | 30000 | 35500 | 99 |
| **27.3** | 1310 | 2.36 | 51.2 | 7.5 | **MN 2E 241** | | **112M-4** | 30000 | 35500 | 92 |
| **32.2** | 1120 | 2.65 | 43.5 | 9.5 | **MN 2E 241** | | **112M-4** | 30000 | 35500 | 92 |
| **37.4** | 960 | 3.55 | 37.5 | 9.5 | **MN 2E 241** | | **112M-4** | 30000 | 35500 | 92 |
| **45.2** | 800 | 4.5 | 31 | 9.5 | **MN 2E 241** | | **112M-4** | 30000 | 35500 | 92 |
| **13.7** | 2530 | 1.25 | 102 | 9.5 | **MN 3E 240** | | **112M-4** | 30000 | 35500 | 91 |
| **16.2** | 2150 | 1.4 | 86.6 | 7.1 | **MN 3E 240** | | **112M-4** | 30000 | 35500 | 91 |
| **19.9** | 1740 | 1.7 | 70.2 | 7.1 | **MN 3E 240** | | **112M-4** | 30000 | 35500 | 91 |
| **23.5** | 1480 | 2 | 59.6 | 7.1 | **MN 3E 240** | | **112M-4** | 30000 | 35500 | 91 |
| **27.7** | 1250 | 2 | 50.5 | 7.1 | **MN 3E 240** | | **112M-4** | 30000 | 35500 | 91 |
| **27.3** | 1310 | 1.32 | 51.2 | 9 | **MN 2E 240** | | **112M-4** | 30000 | 35500 | 84 |
| **32.2** | 1120 | 1.6 | 43.5 | 9 | **MN 2E 240** | | **112M-4** | 30000 | 35500 | 84 |
| **37.4** | 960 | 2 | 37.5 | 9 | **MN 2E 240** | | **112M-4** | 30000 | 35500 | 84 |
| **45.2** | 800 | 2.65 | 31 | 9 | **MN 2E 240** | | **112M-4** | 30000 | 35500 | 84 |
| **56.6** | 630 | 3.35 | 24.8 | 9 | **MN 2E 240** | | **112M-4** | 30000 | 35500 | 84 |
| **16.2** | 2150 | 0.9 | 86.6 | 6.3 | **MN 3E 201** | | **112M-4** | 19000 | 22400 | 75 |
| **19.9** | 1740 | 1.06 | 70.2 | 6.3 | **MN 3E 201** | | **112M-4** | 19000 | 22400 | 75 |
| **23.5** | 1480 | 1.25 | 59.6 | 6.3 | **MN 3E 201** | | **112M-4** | 19000 | 22400 | 75 |
| **27.7** | 1250 | 1.32 | 50.5 | 6.3 | **MN 3E 201** | | **112M-4** | 19000 | 22400 | 75 |
| **27.3** | 1310 | 0.95 | 51.2 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **31.7** | 1130 | 1.32 | 44.1 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **37.4** | 960 | 1.4 | 37.5 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **46.8** | 770 | 2 | 29.9 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **56.6** | 630 | 2.5 | 24.8 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **39.7** | 900 | 1.18 | 35.2 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 18000 | 64 |
| **46.8** | 770 | 1.32 | 29.9 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 18000 | 64 |
| **56.6** | 630 | 1.5 | 24.8 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 18000 | 64 |

## TECHNICAL DATA

### $P_1$= 4kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **65.7** | 550 | 2.8 | 21.3 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 18000 | 67 |
| **82.3** | 436 | 3.15 | 17 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **97** | 370 | 3.55 | 14.4 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **65.7** | 550 | 1.7 | 21.3 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 18000 | 64 |
| **82.3** | 436 | 1.9 | 17 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 19000 | 64 |
| **97** | 370 | 2.12 | 14.4 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 18000 | 64 |
| **114** | 314 | 2 | 12.3 | 6.7 | **MN 2E 200** | | **112M-4** | 15000 | 18000 | 64 |
| **114** | 314 | 3.55 | 12.3 | 7.1 | **MN 2E 201** | | **112M-4** | 19000 | 22400 | 67 |
| **112** | 309 | 3.53 | 12.5 | 22.8 | **MN 1E 353** | | **112M-4** | 60000 | 67000 | 176 |
| **125** | 277 | 4.50 | 11.2 | 22.8 | **MN 1E 353** | | **112M-4** | 60000 | 67000 | 176 |
| **112** | 309 | 2.14 | 12.5 | 16.4 | **MN 1E 280** | | **112M-4** | 47500 | 53000 | 125 |
| **125** | 277 | 3.45 | 11.2 | 16.4 | **MN 1E 280** | | **112M-4** | 47500 | 53000 | 125 |
| **140** | 247 | 4.80 | 10 | 16.4 | **MN 1E 280** | | **112M-4** | 47500 | 53000 | 125 |
| **156** | 222 | 5.63 | 9 | 16.4 | **MN 1E 280** | | **112M-4** | 47500 | 53000 | 125 |
| **112** | 309 | 1.69 | 12.5 | 13.5 | **MN 1E 240** | | **112M-4** | 30000 | 35500 | 81 |
| **125** | 277 | 2.21 | 11.2 | 13.5 | **MN 1E 240** | | **112M-4** | 30000 | 35500 | 81 |
| **140** | 247 | 3.30 | 10 | 13.5 | **MN 1E 240** | | **112M-4** | 30000 | 35500 | 81 |
| **156** | 222 | 3.90 | 9 | 13.5 | **MN 1E 240** | | **112M-4** | 30000 | 35500 | 81 |
| **175** | 198 | 5.10 | 8 | 13.5 | **MN 1E 240** | | **112M-4** | 30000 | 35500 | 81 |
| **112** | 328 | 1.00 | 12.5 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |
| **125** | 294 | 1.28 | 11.2 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |
| **140** | 263 | 1.61 | 10 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |
| **156** | 236 | 2.18 | 9 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |
| **175** | 210 | 2.78 | 8 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |
| **197** | 186 | 4.13 | 7.1 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |
| **222** | 165 | 5.25 | 6.3 | 8.7 | **MN 1E 200** | | **112M-4** | 15000 | 18000 | 59 |

### $P_1$= 5.5kW $n_1$=1400rpm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **0.935** | 49980 | 2.5 | 1497 | 25.8 | **MN 4E 695** | **132S-4** | 250000 | 265000 | 1121 |
| **1.22** | 38450 | 2.8 | 1151 | 21.2 | **MN 4E 543** | **132S-4** | 180000 | 190000 | 763 |
| **1.26** | 37020 | 2.12 | 1109 | 19.5 | **MN 4E 542** | **132S-4** | 150000 | 160000 | 634 |
| **1.5** | 31200 | 3 | 934 | 19.5 | **MN 4E 542** | **132S-4** | 150000 | 160000 | 634 |
| **1.88** | 24800 | 2.8 | 743 | 15.5 | **MN 4E 446** | **132S-4** | 125000 | 132000 | 451 |
| **2.06** | 22680 | 2.5 | 679 | 14.5 | **MN 4E 445** | **132S-4** | 112000 | 118000 | 435 |
| **3.38** | 13830 | 3.15 | 414 | 13.2 | **MN 4E 429** | **132S-4** | 100000 | 106000 | 374 |
| **3.19** | 14650 | 2.12 | 439 | 11.2 | **MN 4E 428** | **132S-4** | 90000 | 97500 | 320 |
| **3.71** | 12620 | 2.36 | 378 | 11.2 | **MN 4E 428** | **132S-4** | 90000 | 97500 | 320 |
| **3.76** | 12430 | 1.7 | 372 | 9.5 | **MN 4E 355** | **132S-4** | 71000 | 80000 | 255 |

## TECHNICAL DATA

**$P_1$= 5.5kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| 3.93 | 11910 | 3.55 | 357 | 13.2 | | MN 4E 429 | 132S-4 | 100000 | 106000 | 374 |
| 4.64 | 10070 | 3 | 302 | 11.2 | | MN 4E 428 | 132S-4 | 90000 | 97500 | 320 |
| 5.47 | 8550 | 3 | 256 | 11.2 | | MN 4E 428 | 132S-4 | 90000 | 97500 | 320 |
| 4.21 | 11360 | 1.8 | 333 | 16.8 | | MN 3E 428 | 132S-4 | 90000 | 97500 | 312 |
| 5 | 9570 | 2.12 | 280 | 16.8 | | MN 3E 428 | 132S-4 | 90000 | 97500 | 312 |
| 6.13 | 7800 | 3.15 | 228 | 16.8 | | MN 3E 428 | 132S-4 | 90000 | 97500 | 312 |
| 4.64 | 10070 | 2 | 302 | 9.5 | | MN 4E 355 | 132S-4 | 71000 | 80000 | 255 |
| 5.47 | 8550 | 2.24 | 256 | 9.5 | | MN 4E 355 | 132S-4 | 71000 | 80000 | 255 |
| 4.21 | 11360 | 1.32 | 333 | 13.2 | | MN 3E 355 | 132S-4 | 71000 | 80000 | 248 |
| 5 | 9570 | 1.7 | 280 | 13.2 | | MN 3E 355 | 132S-4 | 71000 | 80000 | 248 |
| 7.87 | 6080 | 3.15 | 178 | 13.2 | | MN 3E 355 | 132S-4 | 71000 | 80000 | 248 |
| 6.13 | 7800 | 2.24 | 228 | 13.2 | | MN 3E 355 | 132S-4 | 71000 | 80000 | 248 |
| 9.51 | 5030 | 3.75 | 147 | 13.2 | | MN 3E 355 | 132S-4 | 71000 | 80000 | 248 |
| 5.28 | 8860 | 1.7 | 265 | 8.5 | | MN 4E 354 | 132S-4 | 71000 | 80000 | 239 |
| 4.39 | 10900 | 1.12 | 319 | 11.8 | | MN 3E 354 | 132S-4 | 71000 | 80000 | 232 |
| 5.17 | 9250 | 1.32 | 271 | 11.8 | | MN 3E 354 | 132S-4 | 71000 | 80000 | 232 |
| 6.13 | 7800 | 1.8 | 228 | 11.8 | | MN 3E 354 | 132S-4 | 71000 | 80000 | 232 |
| 7.12 | 6710 | 2.24 | 197 | 11.8 | | MN 3E 354 | 132S-4 | 71000 | 80000 | 232 |
| 8.6 | 5560 | 2.65 | 163 | 11.8 | | MN 3E 354 | 132S-4 | 71000 | 80000 | 232 |
| 7.87 | 6080 | 1.9 | 178 | 11.2 | MN 3E 353 | | 132S-4 | 60000 | 67000 | 215 |
| 9.51 | 5030 | 2.24 | 147 | 11.2 | MN 3E 353 | | 132S-4 | 60000 | 67000 | 215 |
| 11 | 4330 | 2.8 | 127 | 11.2 | MN 3E 353 | | 132S-4 | 60000 | 67000 | 215 |
| 13.8 | 3460 | 3.35 | 101 | 11.2 | MN 3E 353 | | 132S-4 | 60000 | 67000 | 215 |
| 16.1 | 2980 | 3.75 | 87.2 | 11.2 | MN 3E 353 | | 132S-4 | 60000 | 67000 | 215 |
| 13.1 | 3660 | 2.12 | 107 | 9.5 | MN 3E 280 | | 132S-4 | 47500 | 53000 | 161 |
| 15.2 | 3150 | 2.5 | 92.4 | 9.5 | MN 3E 280 | | 132S-4 | 47500 | 53000 | 161 |
| 19 | 2520 | 3 | 73.7 | 9.5 | MN 3E 280 | | 132S-4 | 47500 | 53000 | 161 |
| 22.4 | 2140 | 3.35 | 62.6 | 9.5 | MN 3E 280 | | 132S-4 | 47500 | 53000 | 161 |
| 26.4 | 1810 | 3.35 | 53.1 | 9.5 | MN 3E 280 | | 132S-4 | 47500 | 53000 | 161 |
| 29.6 | 1610 | 3.35 | 47.3 | 11.8 | MN 3E 280 | | 132S-4 | 47500 | 53000 | 161 |
| 13.7 | 3490 | 1.5 | 102 | 7.5 | MN 3E 241 | | 132S-4 | 30000 | 35500 | 132 |
| 16.2 | 2960 | 1.7 | 86.6 | 7.5 | MN 3E 241 | | 132S-4 | 30000 | 35500 | 132 |
| 19.9 | 2400 | 2 | 70.2 | 7.5 | MN 3E 241 | | 132S-4 | 30000 | 35500 | 132 |
| 23.5 | 2030 | 2.36 | 59.6 | 7.5 | MN 3E 241 | | 132S-4 | 30000 | 35500 | 132 |
| 27.7 | 1730 | 2.5 | 50.5 | 9.5 | MN 3E 241 | | 132S-4 | 30000 | 35500 | 132 |
| 27.3 | 1810 | 1.7 | 51.2 | 9 | MN 2E 241 | | 132S-4 | 30000 | 35500 | 124 |
| 32.2 | 1530 | 1.9 | 43.5 | 9.5 | MN 2E 241 | | 132S-4 | 30000 | 35500 | 124 |
| 16.2 | 2960 | 1 | 86.6 | 7.1 | MN 3E 240 | | 132S-4 | 30000 | 35500 | 124 |
| 19.9 | 2400 | 1.25 | 70.2 | 7.1 | MN 3E 240 | | 132S-4 | 30000 | 35500 | 124 |
| 23.5 | 2030 | 1.4 | 59.6 | 7.1 | MN 3E 240 | | 132S-4 | 30000 | 35500 | 124 |
| 27.7 | 1730 | 1.4 | 50.5 | 7.1 | MN 3E 240 | | 132S-4 | 30000 | 35500 | 124 |
| 27.3 | 1810 | 0.95 | 51.2 | 9 | MN 2E 240 | | 132S-4 | 30000 | 35500 | 116 |
| 32.2 | 1530 | 1.18 | 43.5 | 9 | MN 2E 240 | | 132S-4 | 30000 | 35500 | 116 |

## TECHNICAL DATA

**$P_1$= 5.5kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **112** | 425 | 2.56 | 12.5 | 22.8 | **MN 1E 353** | | **132S-4** | 60000 | 67000 | 186 |
| **125** | 380 | 3.27 | 11.2 | 22.8 | **MN 1E 353** | | **132S-4** | 60000 | 67000 | 186 |
| **140** | 340 | 4.96 | 10 | 22.8 | **MN 1E 353** | | **132S-4** | 60000 | 67000 | 186 |
| **32.2** | 1530 | 3.15 | 43.5 | 11.8 | **MN 2E 280** | | **132S-4** | 47500 | 53000 | 154 |
| **38.6** | 1280 | 3.75 | 36.3 | 11.8 | **MN 2E 280** | | **132S-4** | 47500 | 53000 | 154 |
| **112** | 425 | 1.55 | 12.5 | 16.4 | **MN 1E 280** | | **132S-4** | 47500 | 53000 | 135 |
| **125** | 380 | 2.51 | 11.2 | 16.4 | **MN 1E 280** | | **132S-4** | 47500 | 53000 | 135 |
| **140** | 340 | 3.49 | 10 | 16.4 | **MN 1E 280** | | **132S-4** | 47500 | 53000 | 135 |
| **156** | 306 | 4.09 | 9 | 16.4 | **MN 1E 280** | | **132S-4** | 47500 | 53000 | 135 |
| **175** | 272 | 5.78 | 8 | 16.4 | **MN 1E 280** | | **132S-4** | 47500 | 53000 | 135 |
| **37.4** | 1320 | 2.5 | 37.5 | 9.5 | **MN 2E 241** | | **132S-4** | 30000 | 35500 | 124 |
| **45.2** | 1090 | 3.15 | 31 | 9.5 | **MN 2E 241** | | **132S-4** | 30000 | 35500 | 124 |
| **56.6** | 870 | 3.75 | 24.8 | 9.5 | **MN 2E 241** | | **132S-4** | 30000 | 35500 | 124 |
| **37.4** | 1320 | 1.4 | 37.5 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **45.2** | 1090 | 2 | 31 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **56.6** | 870 | 2.36 | 24.8 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **65.7** | 750 | 2.8 | 21.3 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **82.3** | 600 | 3.15 | 17 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **97** | 510 | 3.35 | 14.4 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **114** | 432 | 3.35 | 12.3 | 9 | **MN 2E 240** | | **132S-4** | 30000 | 35500 | 116 |
| **112** | 425 | 1.23 | 12.5 | 13.5 | **MN 1E 240** | | **132S-4** | 30000 | 35500 | 91 |
| **125** | 380 | 1.61 | 11.2 | 13.5 | **MN 1E 240** | | **132S-4** | 30000 | 35500 | 91 |
| **140** | 340 | 2.40 | 10 | 13.5 | **MN 1E 240** | | **132S-4** | 30000 | 35500 | 91 |
| **156** | 306 | 2.84 | 9 | 13.5 | **MN 1E 240** | | **132S-4** | 30000 | 35500 | 91 |
| **175** | 272 | 3.71 | 8 | 13.5 | **MN 1E 240** | | **132S-4** | 30000 | 35500 | 91 |
| **197** | 241 | 5.02 | 7.1 | 13.5 | **MN 1E 240** | | **132S-4** | 30000 | 35500 | 91 |
| **37.4** | 1320 | 1.06 | 37.5 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **46.8** | 1050 | 1.4 | 29.9 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **56.6** | 870 | 1.8 | 24.8 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **65.7** | 750 | 2 | 21.3 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **82.3** | 600 | 2.36 | 17 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **97** | 510 | 2.65 | 14.4 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **114** | 432 | 2.5 | 12.3 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **31.7** | 1560 | 0.95 | 44.1 | 7.1 | **MN 2E 201** | | **132S-4** | 19000 | 22400 | 100 |
| **46.8** | 1050 | 0.95 | 29.9 | 6.7 | **MN 2E 200** | | **132S-4** | 15000 | 18000 | 97 |
| **56.6** | 870 | 1.12 | 24.8 | 6.7 | **MN 2E 200** | | **132S-4** | 15000 | 18000 | 97 |
| **65.7** | 750 | 1.18 | 21.3 | 6.7 | **MN 2E 200** | | **132S-4** | 15000 | 18000 | 97 |
| **82.3** | 600 | 1.4 | 17 | 6.7 | **MN 2E 200** | | **132S-4** | 15000 | 18000 | 97 |
| **97** | 510 | 1.6 | 14.4 | 6.7 | **MN 2E 200** | | **132S-4** | 15000 | 18000 | 97 |
| **114** | 432 | 1.4 | 12.3 | 6.7 | **MN 2E 200** | | **132S-4** | 15000 | 18000 | 97 |
| **125** | 380 | 0.93 | 11.2 | 8.7 | **MN 1E 200** | | **132S-4** | 15000 | 18000 | 69 |
| **140** | 340 | 1.17 | 10 | 8.7 | **MN 1E 200** | | **132S-4** | 15000 | 18000 | 69 |
| **156** | 306 | 1.58 | 9 | 8.7 | **MN 1E 200** | | **132S-4** | 15000 | 18000 | 69 |
| **175** | 272 | 2.02 | 8 | 8.7 | **MN 1E 200** | | **132S-4** | 15000 | 18000 | 69 |
| **197** | 241 | 3.00 | 7.1 | 8.7 | **MN 1E 200** | | **132S-4** | 15000 | 18000 | 69 |

## TECHNICAL DATA

### $P_1$= 5.5kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **222** | 214 | 3.82 | 6.3 | 8.7 | **MN 1E 200** | | **132S-4** | 15000 | 18000 | 69 |
| **250** | 190 | 4.75 | 5.6 | 8.7 | **MN 1E 200** | | **132S-4** | 19000 | 22400 | 69 |

### $P_1$= 7.5kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.788** | 80890 | 1.6 | 1777 | 26.5 | | **MN 4E 696** | **132M-4** | 250000 | 265000 | 1309 |
| **0.935** | 68160 | 2.36 | 1497 | 26.5 | | **MN 4E 696** | **132M-4** | 250000 | 265000 | 1309 |
| **0.788** | 80890 | 1.32 | 1777 | 25.8 | | **MN 4E 695** | **132M-4** | 250000 | 265000 | 1121 |
| **0.935** | 68160 | 1.9 | 1497 | 25.8 | | **MN 4E 695** | **132M-4** | 250000 | 265000 | 1121 |
| **1.2** | 53110 | 2.5 | 1166 | 25.8 | | **MN 4E 695** | **132M-4** | 250000 | 265000 | 1121 |
| **1.44** | 44180 | 2.5 | 970 | 21.2 | | **MN 4E 543** | **132M-4** | 180000 | 190000 | 763 |
| **1.8** | 35450 | 2.8 | 779 | 19.5 | | **MN 4E 542** | **132M-4** | 150000 | 160000 | 634 |
| **2.17** | 29340 | 3.15 | 644 | 19.5 | | **MN 4E 542** | **132M-4** | 150000 | 160000 | 634 |
| **2.28** | 27990 | 2.36 | 615 | 15.5 | | **MN 4E 446** | **132M-4** | 125000 | 132000 | 451 |
| **2.73** | 23320 | 2.8 | 512 | 15.5 | | **MN 4E 446** | **132M-4** | 125000 | 132000 | 451 |
| **3.31** | 19240 | 2.8 | 423 | 14.5 | | **MN 4E 445** | **132M-4** | 112000 | 118000 | 435 |
| **3.93** | 16240 | 2.65 | 357 | 13.2 | | **MN 4E 429** | **132M-4** | 100000 | 106000 | 374 |
| **4.92** | 12970 | 3.15 | 285 | 13.2 | | **MN 4E 429** | **132M-4** | 100000 | 106000 | 374 |
| **4.64** | 13730 | 2.12 | 302 | 11.2 | | **MN 4E 428** | **132M-4** | 90000 | 97500 | 320 |
| **5.47** | 11650 | 2.24 | 256 | 11.2 | | **MN 4E 428** | **132M-4** | 90000 | 97500 | 320 |
| **4.21** | 15490 | 1.32 | 333 | 16.8 | | **MN 3E 428** | **132M-4** | 90000 | 97500 | 312 |
| **5** | 13050 | 1.6 | 280 | 16.8 | | **MN 3E 428** | **132M-4** | 90000 | 97500 | 312 |
| **6.13** | 10630 | 2.24 | 228 | 16.8 | | **MN 3E 428** | **132M-4** | 90000 | 97500 | 312 |
| **7.41** | 8800 | 2.65 | 189 | 16.8 | | **MN 3E 428** | **132M-4** | 90000 | 97500 | 312 |
| **8.89** | 7330 | 3.35 | 158 | 16.8 | | **MN 3E 428** | **132M-4** | 90000 | 97500 | 312 |
| **5.79** | 11000 | 3.75 | 242 | 13.2 | | **MN 4E 429** | **132M-4** | 100000 | 106000 | 374 |
| **4.97** | 13100 | 2.12 | 281 | 19.8 | | **MN 3E 429** | **132M-4** | 100000 | 106000 | 364 |
| **7.01** | 9300 | 3.55 | 200 | 19.8 | | **MN 3E 429** | **132M-4** | 100000 | 106000 | 364 |
| **5.9** | 11040 | 3 | 237 | 19.8 | | **MN 3E 429** | **132M-4** | 100000 | 106000 | 364 |
| **5.47** | 11650 | 1.7 | 256 | 9.5 | | **MN 4E 355** | **132M-4** | 71000 | 80000 | 255 |
| **5** | 13050 | 1.25 | 280 | 13.2 | | **MN 3E 355** | **132M-4** | 71000 | 80000 | 248 |
| **6.13** | 10630 | 1.7 | 228 | 13.2 | | **MN 3E 355** | **132M-4** | 71000 | 80000 | 248 |
| **7.87** | 8280 | 2.24 | 178 | 13.2 | | **MN 3E 355** | **132M-4** | 71000 | 80000 | 248 |
| **9.51** | 6860 | 2.65 | 147 | 13.2 | | **MN 3E 355** | **132M-4** | 71000 | 80000 | 248 |
| **11.4** | 5710 | 3.35 | 123 | 13.2 | | **MN 3E 355** | **132M-4** | 71000 | 80000 | 248 |
| **13.2** | 4950 | 3.75 | 106 | 13.2 | | **MN 3E 355** | **132M-4** | 71000 | 80000 | 248 |
| **7.12** | 9160 | 1.6 | 197 | 11.8 | | **MN 3E 354** | **132M-4** | 71000 | 80000 | 232 |
| **8.6** | 7580 | 1.9 | 163 | 11.8 | | **MN 3E 354** | **132M-4** | 71000 | 80000 | 232 |
| **10.8** | 6050 | 2.36 | 130 | 11.8 | | **MN 3E 354** | **132M-4** | 71000 | 80000 | 232 |
| **12.5** | 5210 | 2.65 | 112 | 11.8 | | **MN 3E 354** | **132M-4** | 71000 | 80000 | 232 |
| **13.8** | 4710 | 2.5 | 101 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 215 |
| **9.51** | 6860 | 1.7 | 147 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 215 |
| **11** | 5900 | 2 | 127 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 215 |

## TECHNICAL DATA

**$P_1$= 7.5kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **16.1** | 4060 | 2.8 | 87.2 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 213 |
| **20.1** | 3240 | 3.55 | 69.6 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 213 |
| **23.7** | 2750 | 4 | 59.1 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 213 |
| **27.9** | 2330 | 4 | 50.1 | 11.2 | **MN 3E 353** | | **132M-4** | 60000 | 67000 | 213 |
| **31** | 2170 | 3.15 | 45.2 | 15 | **MN 2E 353** | | **132M-4** | 60000 | 67000 | 205 |
| **15.2** | 4300 | 1.8 | 92.4 | 9.5 | **MN 3E 280** | | **132M-4** | 47500 | 53000 | 161 |
| **19** | 3430 | 2.24 | 73.7 | 9.5 | **MN 3E 280** | | **132M-4** | 47500 | 53000 | 161 |
| **22.4** | 2910 | 2.5 | 62.6 | 9.5 | **MN 3E 280** | | **132M-4** | 47500 | 53000 | 161 |
| **26.4** | 2470 | 2.5 | 53.1 | 9.5 | **MN 3E 280** | | **132M-4** | 47500 | 53000 | 161 |
| **29.6** | 2200 | 2.5 | 47.3 | 9.5 | **MN 3E 280** | | **132M-4** | 47500 | 53000 | 161 |
| **32.2** | 2090 | 2.24 | 43.5 | 11.8 | **MN 2E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **38.6** | 1740 | 2.8 | 36.3 | 11.8 | **MN 2E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **46.7** | 1440 | 4 | 30 | 11.8 | **MN 2E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **19.9** | 3270 | 1.5 | 70.2 | 7.5 | **MN 3E 241** | | **132M-4** | 30000 | 35500 | 132 |
| **23.5** | 2770 | 1.7 | 59.6 | 7.5 | **MN 3E 241** | | **132M-4** | 30000 | 35500 | 132 |
| **27.7** | 2350 | 1.9 | 50.5 | 7.5 | **MN 3E 241** | | **132M-4** | 30000 | 35500 | 132 |
| **27.3** | 2460 | 1.25 | 51.2 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **32.2** | 2090 | 1.4 | 43.5 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **37.4** | 1800 | 1.9 | 37.5 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **45.2** | 1490 | 2.36 | 31 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **56.6** | 1190 | 2.8 | 24.8 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **65.7** | 1020 | 3.55 | 21.3 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **82.3** | 820 | 4 | 17 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **97** | 690 | 4 | 14.4 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **114** | 590 | 4 | 12.3 | 9.5 | **MN 2E 241** | | **132M-4** | 30000 | 35500 | 124 |
| **19.9** | 3270 | 0.9 | 70.2 | 7.1 | **MN 3E 240** | | **132M-4** | 30000 | 35500 | 124 |
| **23.5** | 2770 | 1.06 | 59.6 | 7.1 | **MN 3E 240** | | **132M-4** | 30000 | 35500 | 124 |
| **27.7** | 2350 | 1.06 | 50.5 | 7.1 | **MN 3E 240** | | **132M-4** | 30000 | 35500 | 124 |
| **37.4** | 1800 | 1.06 | 37.5 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **45.2** | 1490 | 1.4 | 31 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **56.6** | 1190 | 1.8 | 24.8 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **65.7** | 1020 | 2 | 21.3 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **82.3** | 820 | 2.36 | 17 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **97** | 690 | 2.5 | 14.4 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **114** | 590 | 2.5 | 12.3 | 9 | **MN 2E 240** | | **132M-4** | 30000 | 35500 | 116 |
| **46.8** | 1440 | 1.06 | 29.9 | 7.1 | **MN 2E 201** | | **132M-4** | 19000 | 22400 | 100 |
| **56.6** | 1190 | 1.32 | 24.8 | 7.1 | **MN 2E 201** | | **132M-4** | 19000 | 22400 | 100 |
| **65.7** | 1020 | 1.5 | 21.3 | 7.1 | **MN 2E 201** | | **132M-4** | 19000 | 22400 | 100 |
| **82.3** | 820 | 1.7 | 17 | 7.1 | **MN 2E 201** | | **132M-4** | 19000 | 22400 | 100 |
| **97** | 690 | 1.9 | 14.4 | 7.1 | **MN 2E 201** | | **132M-4** | 19000 | 22400 | 100 |
| **114** | 590 | 1.9 | 12.3 | 7.1 | **MN 2E 201** | | **132M-4** | 19000 | 22400 | 100 |
| **65.7** | 1020 | 0.9 | 21.3 | 6.7 | **MN 2E 200** | | **132M-4** | 15000 | 18000 | 97 |
| **82.3** | 820 | 1.06 | 17 | 6.7 | **MN 2E 200** | | **132M-4** | 15000 | 18000 | 97 |
| **97** | 690 | 1.18 | 14.4 | 6.7 | **MN 2E 200** | | **132M-4** | 15000 | 18000 | 97 |
| **114** | 590 | 1.06 | 12.3 | 6.7 | **MN 2E 200** | | **132M-4** | 15000 | 18000 | 97 |

## TECHNICAL DATA

### $P_1$ = 7.5kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **112** | 579 | 1.88 | 12.5 | 22.8 | **MN 1E 353** | | **132M-4** | 60000 | 67000 | 205 |
| **125** | 519 | 2.4 | 11.2 | 22.8 | **MN 1E 353** | | **132M-4** | 60000 | 67000 | 205 |
| **140** | 463 | 3.64 | 10 | 22.8 | **MN 1E 353** | | **132M-4** | 60000 | 67000 | 205 |
| **156** | 417 | 5.08 | 9 | 22.8 | **MN 1E 353** | | **132M-4** | 60000 | 67000 | 205 |
| **112** | 579 | 1.14 | 12.5 | 16.4 | **MN 1E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **125** | 519 | 1.84 | 11.2 | 16.4 | **MN 1E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **140** | 463 | 2.56 | 10 | 16.4 | **MN 1E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **156** | 417 | 3.00 | 9 | 16.4 | **MN 1E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **175** | 371 | 4.24 | 8 | 16.4 | **MN 1E 280** | | **132M-4** | 47500 | 53000 | 154 |
| **112** | 579 | 0.9 | 12.5 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **125** | 519 | 1.18 | 11.2 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **140** | 463 | 1.76 | 10 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **156** | 417 | 2.08 | 9 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **175** | 371 | 2.72 | 8 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **197** | 329 | 3.68 | 7.1 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **222** | 292 | 5.44 | 6.3 | 13.5 | **MN 1E 240** | | **132M-4** | 30000 | 35500 | 110 |
| **140** | 463 | 0.86 | 10 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |
| **156** | 417 | 1.16 | 9 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |
| **175** | 370 | 1.48 | 8 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |
| **197** | 329 | 2.2 | 7.1 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |
| **222** | 292 | 2.8 | 6.3 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |
| **250** | 259 | 3.48 | 5.6 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |
| **280** | 232 | 5.2 | 5 | 8.7 | **MN 1E 200** | | **132M-4** | 15000 | 18000 | 88 |

### $P_1$ = 11kW $n_1$=1400rpm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **0.935** | 99960 | 1.6 | 1497 | 26.5 | **MN 4E 696** | **160M-4** | 250000 | 265000 | 1346 |
| **1.2** | 77890 | 2 | 1166 | 26.5 | **MN 4E 696** | **160M-4** | 250000 | 265000 | 1346 |
| **1.47** | 63470 | 2.5 | 950 | 26.5 | **MN 4E 696** | **160M-4** | 250000 | 265000 | 1346 |
| **1.2** | 77890 | 1.7 | 1166 | 25.8 | **MN 4E 695** | **160M-4** | 250000 | 265000 | 1258 |
| **1.47** | 63470 | 2.24 | 950 | 25.8 | **MN 4E 695** | **160M-4** | 250000 | 265000 | 1258 |
| **1.73** | 54070 | 2.8 | 810 | 25.8 | **MN 4E 695** | **160M-4** | 250000 | 265000 | 1258 |
| **27** | 45180 | 2.65 | 677 | 21.2 | **MN 4E 543** | **160M-4** | 180000 | 190000 | 800 |
| **2.79** | 33530 | 2.8 | 502 | 19.5 | **MN 4E 542** | **160M-4** | 150000 | 160000 | 666 |
| **3.22** | 29060 | 2.8 | 435 | 19.5 | **MN 4E 542** | **160M-4** | 150000 | 160000 | 666 |
| **3.15** | 29650 | 2.12 | 444 | 15.5 | **MN 4E 446** | **160M-4** | 125000 | 132000 | 451 |
| **3.66** | 25530 | 2.5 | 382 | 15.5 | **MN 4E 446** | **160M-4** | 125000 | 132000 | 451 |
| **4.91** | 19470 | 2 | 285 | 21.8 | **MN 3E 446** | **160M-4** | 125000 | 132000 | 474 |
| **4.82** | 19400 | 2.65 | 291 | 14.5 | **MN 4E 445** | **160M-4** | 112000 | 118000 | 462 |
| **4.99** | 19170 | 1.8 | 281 | 20.6 | **MN 3E 445** | **160M-4** | 112000 | 118000 | 462 |
| **5.79** | 16140 | 2.5 | 242 | 13.2 | **MN 4E 429** | **160M-4** | 100000 | 106000 | 412 |

## TECHNICAL DATA

**$P_1$= 11 kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **7.43** | 12870 | 3 | 189 | 20.6 | | **MN 3E 445** | **160M-4** | 112000 | 118000 | 462 |
| **6.83** | 13690 | 2.65 | 205 | 13.2 | | **MN 4E 429** | **160M-4** | 100000 | 106000 | 412 |
| **5.9** | 16190 | 2 | 237 | 19.8 | | **MN 3E 429** | **160M-4** | 100000 | 106000 | 401 |
| **7.1** | 13640 | 2.36 | 200 | 19.8 | | **MN 3E 429** | **160M-4** | 100000 | 106000 | 401 |
| **8.47** | 11290 | 2.8 | 165 | 19.8 | | **MN 3E 429** | **160M-4** | 100000 | 106000 | 401 |
| **6.13** | 15590 | 1.6 | 228 | 16.8 | | **MN 3E 428** | **160M-4** | 90000 | 97500 | 349 |
| **7.41** | 12910 | 1.8 | 189 | 16.8 | | **MN 3E 428** | **160M-4** | 90000 | 97500 | 349 |
| **8.89** | 10750 | 2.24 | 158 | 16.8 | | **MN 3E 428** | **160M-4** | 90000 | 97500 | 349 |
| **11.4** | 8380 | 2.8 | 123 | 16.8 | | **MN 3E 428** | **160M-4** | 90000 | 97500 | 349 |
| **13.2** | 7220 | 3.15 | 106 | 16.8 | | **MN 3E 428** | **160M-4** | 90000 | 97500 | 349 |
| **15.3** | 6250 | 3 | 91.6 | 13.2 | | **MN 3E 355** | **160M-4** | 71000 | 80000 | 285 |
| **7.87** | 12150 | 1.6 | 178 | 13.2 | | **MN 3E 355** | **160M-4** | 71000 | 80000 | 285 |
| **9.51** | 10060 | 1.8 | 147 | 13.2 | | **MN 3E 355** | **160M-4** | 71000 | 80000 | 285 |
| **11.4** | 8380 | 2.24 | 123 | 13.2 | | **MN 3E 355** | **160M-4** | 71000 | 80000 | 285 |
| **13.2** | 7260 | 2.5 | 106 | 13.2 | | **MN 3E 355** | **160M-4** | 71000 | 80000 | 285 |
| **10.8** | 8870 | 1.6 | 130 | 11.8 | | **MN 3E 354** | **160M-4** | 71000 | 80000 | 269 |
| **12.5** | 7640 | 1.8 | 112 | 11.8 | | **MN 3E 354** | **160M-4** | 71000 | 80000 | 269 |
| **15.7** | 6100 | 2.24 | 89.3 | 11.8 | | **MN 3E 354** | **160M-4** | 71000 | 80000 | 269 |
| **20.1** | 4750 | 2.8 | 69.6 | 11.8 | | **MN 3E 354** | **160M-4** | 71000 | 80000 | 269 |
| **23.7** | 4030 | 3 | 59.1 | 11.8 | | **MN 3E 354** | **160M-4** | 71000 | 80000 | 269 |
| **27.9** | 3420 | 3 | 50.1 | 11.8 | | **MN 3E 354** | **160M-4** | 71000 | 80000 | 269 |
| **31** | 3190 | 3 | 45.2 | 16 | | **MN 2E 354** | **160M-4** | 71000 | 80000 | 259 |
| **13.8** | 6910 | 1.7 | 101 | 11.2 | **MN 3E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **16.1** | 5950 | 1.9 | 87.2 | 11.2 | **MN 3E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **20.1** | 4750 | 2.36 | 69.6 | 11.2 | **MN 3E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **23.7** | 4030 | 2.65 | 59.1 | 11.2 | **MN 3E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **27.9** | 3420 | 2.65 | 50.1 | 11.2 | **MN 3E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **33.3** | 2870 | 2.65 | 42 | 11.2 | **MN 3E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **31** | 3190 | 2.12 | 45.2 | 15 | **MN 2E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **36.8** | 2680 | 2.8 | 38.1 | 15 | **MN 2E 353** | | **160M-4** | 60000 | 67000 | 253 |
| **32.2** | 3070 | 1.6 | 43.5 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **38.6** | 2560 | 1.9 | 36.3 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **46.7** | 2120 | 2.8 | 30 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **53.8** | 1830 | 2.8 | 26 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **62.5** | 1580 | 3.75 | 22.4 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **78.3** | 1260 | 4 | 17.9 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **92.3** | 1070 | 4 | 15.2 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **104** | 950 | 4 | 13.5 | 11.8 | **MN 2E 280** | | **160M-4** | 47500 | 53000 | 215 |
| **32.2** | 3070 | 0.95 | 43.5 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **37.4** | 2640 | 1.25 | 37.5 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **45.2** | 2190 | 1.6 | 31 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **56.6** | 1750 | 1.9 | 24.8 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **65.7** | 1500 | 2.5 | 21.3 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **82.3** | 1200 | 2.8 | 17 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **97** | 1020 | 2.65 | 14.4 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |
| **114** | 860 | 2.65 | 12.3 | 9.5 | **MN 2E 241** | | **160M-4** | 30000 | 35500 | 153 |

## TECHNICAL DATA

### $P_1$ = 11kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] C | $Fr_{2MAX}$ [N] S | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **112** | 849 | 1.28 | 12.5 | 22.8 | **MN 1E 353** | | **160M-4** | 60000 | 67000 | 222 |
| **125** | 761 | 1.64 | 11.2 | 22.8 | **MN 1E 353** | | **160M-4** | 60000 | 67000 | 222 |
| **140** | 679 | 2.48 | 10 | 22.8 | **MN 1E 353** | | **160M-4** | 60000 | 67000 | 222 |
| **156** | 611 | 3.46 | 9 | 22.8 | **MN 1E 353** | | **160M-4** | 60000 | 67000 | 222 |
| **175** | 543 | 4.45 | 8 | 22.8 | **MN 1E 353** | | **160M-4** | 60000 | 67000 | 222 |
| **125** | 761 | 1.25 | 11.2 | 16.4 | **MN 1E 280** | | **160M-4** | 47500 | 53000 | 171 |
| **140** | 679 | 1.75 | 10 | 16.4 | **MN 1E 280** | | **160M-4** | 47500 | 53000 | 171 |
| **156** | 611 | 2.05 | 9 | 16.4 | **MN 1E 280** | | **160M-4** | 47500 | 53000 | 171 |
| **175** | 543 | 2.89 | 8 | 16.4 | **MN 1E 280** | | **160M-4** | 47500 | 53000 | 171 |
| **197** | 482 | 4.09 | 7.1 | 16.4 | **MN 1E 280** | | **160M-4** | 47500 | 53000 | 171 |
| **222** | 428 | 5.59 | 6.3 | 16.4 | **MN 1E 280** | | **160M-4** | 47500 | 53000 | 171 |
| **140** | 679 | 0.88 | 10 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |
| **156** | 611 | 1.04 | 9 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |
| **175** | 543 | 1.36 | 8 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |
| **197** | 482 | 1.84 | 7.1 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |
| **222** | 428 | 2.72 | 6.3 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |
| **250** | 380 | 3.5 | 5.6 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |
| **280** | 340 | 5.2 | 5 | 13.5 | **MN 1E 240** | | **160M-4** | 30000 | 35500 | 127 |

### $P_1$ = 15kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.2** | 106200 | 1.5 | 1166 | 26.5 | | **MN 4E 696** | **160L-4** | 250000 | 265000 | 1346 |
| **1.73** | 73730 | 2.5 | 810 | 26.5 | | **MN 4E 696** | **160L-4** | 250000 | 265000 | 1346 |
| **1.47** | 86550 | 1.8 | 950 | 26.5 | | **MN 4E 696** | **160L-4** | 250000 | 265000 | 1346 |
| **1.47** | 86550 | 1.6 | 950 | 25.8 | | **MN 4E 695** | **160L-4** | 250000 | 265000 | 1258 |
| **1.73** | 73730 | 2.12 | 810 | 25.8 | | **MN 4E 695** | **160L-4** | 250000 | 265000 | 1258 |
| **2.19** | 58130 | 2.5 | 638 | 25.8 | | **MN 4E 695** | **160L-4** | 250000 | 265000 | 1258 |
| **2.6** | 48980 | 3 | 538 | 25.8 | | **MN 4E 695** | **160L-4** | 250000 | 265000 | 1258 |
| **3.41** | 37410 | 3 | 411 | 21.2 | | **MN 4E 543** | **160L-4** | 180000 | 190000 | 800 |
| **3.74** | 34120 | 2.5 | 375 | 19.5 | | **MN 4E 542** | **160L-4** | 150000 | 160000 | 666 |
| **4.68** | 27240 | 3.15 | 299 | 19.5 | | **MN 4E 542** | **160L-4** | 150000 | 160000 | 666 |
| **4.9** | 26620 | 2.12 | 286 | 28.8 | | **MN 3E 542** | **160L-4** | 150000 | 160000 | 690 |
| **4.59** | 27790 | 2.24 | 305 | 15.5 | | **MN 4E 446** | **160L-4** | 125000 | 132000 | 488 |
| **5.41** | 23580 | 2.5 | 259 | 15.5 | | **MN 4E 446** | **160L-4** | 125000 | 132000 | 488 |
| **6.07** | 20990 | 2.5 | 231 | 15.5 | | **MN 4E 446** | **160L-4** | 125000 | 132000 | 488 |
| **4.91** | 26550 | 1.5 | 285 | 21.8 | | **MN 3E 446** | **160L-4** | 125000 | 132000 | 474 |
| **4.82** | 26460 | 2 | 291 | 14.5 | | **MN 4E 445** | **160L-4** | 112000 | 118000 | 472 |
| **5.68** | 22450 | 2.24 | 247 | 14.5 | | **MN 4E 445** | **160L-4** | 112000 | 118000 | 472 |
| **6.69** | 19050 | 2.24 | 209 | 14.5 | | **MN 4E 445** | **160L-4** | 112000 | 118000 | 472 |
| **4.99** | 26140 | 1.32 | 281 | 20.6 | | **MN 3E 445** | **160L-4** | 112000 | 118000 | 462 |
| **5.85** | 22270 | 1.8 | 239 | 20.6 | | **MN 3E 445** | **160L-4** | 112000 | 118000 | 462 |
| **4.92** | 25930 | 1.6 | 285 | 13.2 | | **MN 4E 429** | **160L-4** | 100000 | 106000 | 412 |

## TECHNICAL DATA

**$P_1$= 15kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **7.13** | 18280 | 3.55 | 196 | 28 | | **MN 3E 542** | **160L-4** | 150000 | 180000 | 690 |
| **5.76** | 22620 | 2.12 | 243 | 21.8 | | **MN 3E 446** | **160L-4** | 125000 | 132000 | 474 |
| **7.31** | 17830 | 2.65 | 192 | 21.8 | | **MN 3E 446** | **160L-4** | 125000 | 132000 | 474 |
| **8.97** | 14530 | 3.15 | 156 | 21.8 | | **MN 3E 446** | **160L-4** | 125000 | 132000 | 474 |
| **7.43** | 17560 | 2.24 | 189 | 20.6 | | **MN 3E 445** | **160L-4** | 112000 | 118000 | 462 |
| **8.97** | 14530 | 2.65 | 156 | 20.6 | | **MN 3E 445** | **160L-4** | 112000 | 118000 | 462 |
| **7.01** | 18610 | 1.8 | 200 | 19 | | **MN 3E 429** | **160L-4** | 100000 | 106000 | 462 |
| **8.47** | 15400 | 2.12 | 165 | 19 | | **MN 3E 429** | **160L-4** | 100000 | 106000 | 462 |
| **10.9** | 12000 | 2.8 | 129 | 19 | | **MN 3E 429** | **160L-4** | 100000 | 106000 | 462 |
| **13.9** | 9350 | 3.35 | 100 | 19 | | **MN 3E 429** | **160L-4** | 100000 | 106000 | 462 |
| **16.2** | 8050 | 4.25 | 86.5 | 19 | | **MN 3E 429** | **160L-4** | 100000 | 106000 | 462 |
| **7.41** | 17600 | 1.32 | 189 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **8.89** | 14670 | 1.6 | 158 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **11.4** | 11430 | 2.12 | 123 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **13.2** | 9840 | 2.36 | 106 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **15.3** | 8530 | 2.65 | 91.6 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **19.1** | 6810 | 3.35 | 73.1 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **22.6** | 5780 | 3.15 | 62 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **25.3** | 5140 | 3 | 55.2 | 16 | | **MN 3E 428** | **160L-4** | 90000 | 97500 | 349 |
| **30.5** | 4410 | 3.35 | 45.9 | 21.2 | | **MN 2E 428** | **160L-4** | 90000 | 97500 | 336 |
| **11.4** | 11430 | 1.6 | 123 | 13.2 | | **MN 3E 355** | **160L-4** | 71000 | 80000 | 285 |
| **13.2** | 9900 | 1.9 | 106 | 13.2 | | **MN 3E 355** | **160L-4** | 71000 | 80000 | 285 |
| **15.3** | 8530 | 2.12 | 91.6 | 13.2 | | **MN 3E 355** | **160L-4** | 71000 | 80000 | 285 |
| **19.1** | 6810 | 2.65 | 73.1 | 13.2 | | **MN 3E 355** | **160L-4** | 71000 | 80000 | 285 |
| **22.6** | 5780 | 2.5 | 62 | 13.2 | | **MN 3E 355** | **160L-4** | 71000 | 80000 | 285 |
| **25.3** | 5140 | 2.5 | 55.2 | 13.2 | | **MN 3E 355** | **160L-4** | 71000 | 80000 | 285 |
| **30.5** | 4410 | 2.65 | 45.9 | 13.2 | | **MN 2E 355** | **160L-4** | 71000 | 80000 | 285 |
| **15.7** | 8320 | 1.6 | 89.3 | 11.8 | | **MN 3E 354** | **160L-4** | 71000 | 80000 | 269 |
| **20.1** | 6480 | 2.12 | 69.6 | 11.8 | | **MN 3E 354** | **160L-4** | 71000 | 80000 | 269 |
| **23.7** | 5500 | 2.24 | 59.1 | 11.8 | | **MN 3E 354** | **160L-4** | 71000 | 80000 | 269 |
| **27.9** | 4670 | 2.24 | 50.1 | 11.8 | | **MN 3E 354** | **160L-4** | 71000 | 80000 | 269 |
| **31** | 4340 | 2.24 | 45.2 | 16 | | **MN 2E 354** | **160L-4** | 71000 | 80000 | 259 |
| **37.4** | 3600 | 2.8 | 37.4 | 16 | | **MN 2E 354** | **160L-4** | 71000 | 80000 | 259 |
| **20.1** | 6480 | 1.7 | 69.6 | 11.2 | **MN 3E 353** | | **160L-4** | 60000 | 67000 | 253 |
| **23.7** | 5500 | 2 | 59.1 | 11.2 | **MN 3E 353** | | **160L-4** | 60000 | 67000 | 253 |
| **27.9** | 4670 | 2 | 50.1 | 11.2 | **MN 3E 353** | | **160L-4** | 60000 | 67000 | 253 |
| **33.3** | 3910 | 2 | 42 | 11.2 | **MN 3E 353** | | **160L-4** | 60000 | 67000 | 253 |
| **31** | 4340 | 1.6 | 45.2 | 15 | **MN 2E 353** | | **160L-4** | 60000 | 67000 | 242 |
| **36.8** | 3660 | 2.12 | 38.1 | 15 | **MN 2E 353** | | **160L-4** | 60000 | 67000 | 242 |
| **32.2** | 4180 | 1.12 | 43.5 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **38.6** | 3490 | 1.4 | 36.3 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **46.7** | 2890 | 2 | 30 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |

## TECHNICAL DATA

**$P_1$= 15kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **44.4** | 3030 | 2.8 | 31.5 | 15 | **MN 2E 353** | | **160L-4** | 60000 | 67000 | 242 |
| **57** | 2360 | 3.35 | 24.5 | 15 | **MN 2E 353** | | **160L-4** | 60000 | 67000 | 242 |
| **66.2** | 2030 | 4.25 | 21.1 | 15 | **MN 2E 353** | | **160L-4** | 60000 | 67000 | 242 |
| **112** | 1158 | 0.94 | 12.5 | 22.8 | **MN 1E 353** | | **160L-4** | 60000 | 67000 | 287 |
| **125** | 1038 | 1.2 | 11.2 | 22.8 | **MN 1E 353** | | **160L-4** | 60000 | 67000 | 287 |
| **140** | 926 | 1.82 | 10 | 22.8 | **MN 1E 353** | | **160L-4** | 60000 | 67000 | 287 |
| **156** | 834 | 2.54 | 9 | 22.8 | **MN 1E 353** | | **160L-4** | 60000 | 67000 | 287 |
| **175** | 741 | 3.26 | 8 | 22.8 | **MN 1E 353** | | **160L-4** | 60000 | 67000 | 287 |
| **197** | 658 | 5 | 7.1 | 22.8 | **MN 1E 353** | | **160L-4** | 60000 | 67000 | 287 |
| **53.8** | 2500 | 2.12 | 26 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **62.5** | 2150 | 2.65 | 22.4 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **78.3** | 1720 | 3 | 17.9 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **92.3** | 1460 | 3 | 15.2 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **104** | 1300 | 3 | 13.5 | 11.8 | **MN 2E 280** | | **160L-4** | 47500 | 53000 | 191 |
| **125** | 1038 | 0.92 | 11.2 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **140** | 926 | 1.28 | 10 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **156** | 834 | 1.50 | 9 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **175** | 741 | 2.12 | 8 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **197** | 658 | 3.00 | 7.1 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **222** | 584 | 4.10 | 6.3 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **250** | 519 | 5.10 | 5.6 | 16.4 | **MN 1E 280** | | **160L-4** | 47500 | 53000 | 236 |
| **37.4** | 3600 | 0.95 | 37.5 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **45.2** | 2980 | 1.18 | 31 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **56.6** | 2380 | 1.4 | 24.8 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **65.7** | 2050 | 1.8 | 21.3 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **82.3** | 1640 | 2 | 17 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **97** | 1390 | 2 | 14.4 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **114** | 1180 | 2 | 12.3 | 9.5 | **MN 2E 241** | | **160L-4** | 30000 | 35500 | 162 |
| **56.6** | 2380 | 0.9 | 24.8 | 9 | **MN 2E 240** | | **160L-4** | 30000 | 35500 | 153 |
| **65.7** | 2050 | 1 | 21.3 | 9 | **MN 2E 240** | | **160L-4** | 30000 | 35500 | 153 |
| **82.3** | 1640 | 1.18 | 17 | 9 | **MN 2E 240** | | **160L-4** | 30000 | 35500 | 153 |
| **97** | 1390 | 1.25 | 14.4 | 9 | **MN 2E 240** | | **160L-4** | 30000 | 35500 | 153 |
| **114** | 1180 | 1.25 | 12.3 | 9 | **MN 2E 240** | | **160L-4** | 30000 | 35500 | 153 |
| **140** | 926 | 0.88 | 10 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |
| **156** | 834 | 1.04 | 9 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |
| **175** | 741 | 1.36 | 8 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |
| **197** | 658 | 1.84 | 7.1 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |
| **222** | 584 | 2.72 | 6.3 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |
| **250** | 519 | 3.5 | 5.6 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |
| **280** | 463 | 5.2 | 5 | 13.5 | **MN 1E 240** | | **160L-4** | 30000 | 35500 | 190 |

## TECHNICAL DATA

**$P_1$= 18.5kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **1.47** | 106700 | 1.5 | 950 | 26.5 | | **MN 4E 696** | **180M-4** | 250000 | 265000 | 1400 |
| **1.73** | 90940 | 2 | 810 | 26.5 | | **MN 4E 696** | **180M-4** | 250000 | 265000 | 1400 |
| **2.19** | 71700 | 2.5 | 638 | 26.5 | | **MN 4E 696** | **180M-4** | 250000 | 265000 | 1400 |
| **2.19** | 71700 | 2.12 | 638 | 25.8 | | **MN 4E 695** | **180M-4** | 250000 | 265000 | 1312 |
| **2.6** | 60410 | 2.5 | 538 | 25.8 | | **MN 4E 695** | **180M-4** | 250000 | 265000 | 1312 |
| **3.34** | 47070 | 3.15 | 419 | 25.8 | | **MN 4E 695** | **180M-4** | 250000 | 265000 | 1312 |
| **3.41** | 46140 | 2.36 | 411 | 21.2 | | **MN 4E 543** | **180M-4** | 180000 | 190000 | 854 |
| **3.96** | 39730 | 2.8 | 354 | 21.2 | | **MN 4E 543** | **180M-4** | 180000 | 190000 | 854 |
| **4.68** | 33600 | 2.5 | 299 | 19.5 | | **MN 4E 542** | **180M-4** | 150000 | 160000 | 757 |
| **5.52** | 28510 | 2.65 | 254 | 19.5 | | **MN 4E 542** | **180M-4** | 150000 | 160000 | 757 |
| **6.2** | 25380 | 2.65 | 226 | 19.5 | | **MN 4E 542** | **180M-4** | 150000 | 160000 | 757 |
| **4.9** | 32830 | 1.7 | 286 | 28.8 | | **MN 3E 542** | **180M-4** | 150000 | 160000 | 744 |
| **5.81** | 27660 | 2 | 241 | 28.8 | | **MN 3E 542** | **180M-4** | 150000 | 160000 | 744 |
| **7.13** | 22540 | 3 | 196 | 28.8 | | **MN 3E 542** | **180M-4** | 150000 | 160000 | 744 |
| **9.15** | 17560 | 3.55 | 153 | 28.8 | | **MN 3E 542** | **180M-4** | 150000 | 160000 | 744 |
| **5.41** | 29090 | 2.12 | 259 | 15.5 | | **MN 4E 446** | **180M-4** | 125000 | 132000 | 542 |
| **6.07** | 25890 | 2 | 231 | 15.5 | | **MN 4E 446** | **180M-4** | 125000 | 132000 | 542 |
| **4.91** | 32740 | 1.18 | 285 | 21.8 | | **MN 3E 446** | **180M-4** | 125000 | 132000 | 528 |
| **5.76** | 27890 | 1.7 | 243 | 21.8 | | **MN 3E 446** | **180M-4** | 125000 | 132000 | 528 |
| **7.31** | 21990 | 2.12 | 192 | 21.8 | | **MN 3E 446** | **180M-4** | 125000 | 132000 | 528 |
| **8.97** | 17920 | 2.5 | 156 | 21.8 | | **MN 3E 446** | **180M-4** | 125000 | 132000 | 528 |
| **6.69** | 23490 | 1.8 | 209 | 14.5 | | **MN 4E 445** | **180M-4** | 112000 | 118000 | 504 |
| **7.43** | 21650 | 1.8 | 189 | 20.6 | | **MN 3E 445** | **180M-4** | 112000 | 118000 | 504 |
| **8.97** | 17920 | 2.12 | 156 | 20.6 | | **MN 3E 445** | **180M-4** | 112000 | 118000 | 504 |
| **10.6** | 15100 | 2.8 | 131 | 20.6 | | **MN 3E 445** | **180M-4** | 112000 | 118000 | 504 |
| **10.9** | 14800 | 2.24 | 129 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **13.9** | 11530 | 2.8 | 100 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **16.2** | 9930 | 3.35 | 86.5 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **20.3** | 7930 | 4 | 69 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **23.9** | 6730 | 4 | 58.6 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **11.4** | 14090 | 1.7 | 123 | 16.8 | | **MN 3E 428** | **180M-4** | 90000 | 97500 | 403 |
| **13.2** | 12140 | 1.9 | 106 | 16.8 | | **MN 3E 428** | **180M-4** | 90000 | 97500 | 403 |
| **15.3** | 10520 | 2.12 | 91.6 | 16.8 | | **MN 3E 428** | **180M-4** | 90000 | 97500 | 403 |
| **19.1** | 8400 | 2.65 | 73.1 | 16.8 | | **MN 3E 428** | **180M-4** | 90000 | 97500 | 403 |
| **22.6** | 7130 | 2.5 | 62 | 16.8 | | **MN 3E 428** | **180M-4** | 90000 | 97500 | 403 |
| **13.2** | 12210 | 1.5 | 106 | 13.2 | | **MN 3E 355** | **180M-4** | 71000 | 80000 | 339 |
| **15.3** | 10520 | 1.7 | 91.6 | 13.2 | | **MN 3E 355** | **180M-4** | 71000 | 80000 | 339 |
| **19.1** | 8400 | 2.12 | 73.1 | 13.2 | | **MN 3E 355** | **180M-4** | 71000 | 80000 | 339 |
| **22.6** | 7130 | 2 | 62 | 13.2 | | **MN 3E 355** | **180M-4** | 71000 | 80000 | 339 |
| **25.3** | 6340 | 2 | 55.2 | 13.2 | | **MN 3E 355** | **180M-4** | 71000 | 80000 | 339 |
| **20.1** | 7990 | 1.7 | 69.6 | 11.8 | | **MN 3E 354** | **180M-4** | 71000 | 80000 | 301 |
| **23.7** | 6780 | 1.8 | 59.1 | 11.8 | | **MN 3E 354** | **180M-4** | 71000 | 80000 | 301 |
| **27.9** | 5750 | 1.8 | 50.1 | 11.8 | | **MN 3E 354** | **180M-4** | 71000 | 80000 | 301 |

## TECHNICAL DATA

**$P_1$= 18.5kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **28.5** | 5640 | 4 | 49.1 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **34** | 4720 | 4 | 41.1 | 19.8 | | **MN 3E 429** | **180M-4** | 100000 | 106000 | 455 |
| **25.3** | 6340 | 2.36 | 55.2 | 19.8 | | **MN 3E 428** | **180M-4** | 90000 | 97500 | 403 |
| **30.5** | 5440 | 2.8 | 45.9 | 21.2 | | **MN 2E 428** | **180M-4** | 90000 | 97500 | 390 |
| **30.5** | 5440 | 2.12 | 45.9 | 18 | | **MN 2E 355** | **180M-4** | 71000 | 80000 | 325 |
| **36.2** | 4590 | 3 | 38.7 | 18 | | **MN 2E 355** | **180M-4** | 71000 | 80000 | 325 |
| **31** | 5360 | 1.8 | 45.2 | 16 | | **MN 2E 354** | **180M-4** | 71000 | 80000 | 313 |
| **37.4** | 4430 | 2.24 | 37.4 | 16 | | **MN 2E 354** | **180M-4** | 71000 | 80000 | 313 |
| **44.4** | 3740 | 2.8 | 31.5 | 16 | | **MN 2E 354** | **180M-4** | 71000 | 80000 | 313 |
| **31** | 5360 | 1.25 | 45.2 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **36.8** | 4520 | 1.7 | 38.1 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **44.4** | 3740 | 2.24 | 31.5 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **57** | 2910 | 2.8 | 24.5 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **66.2** | 2510 | 3.55 | 21.1 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **83** | 2000 | 3.75 | 16.9 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **97.8** | 1700 | 4 | 14.3 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **117** | 1420 | 4 | 12 | 15 | **MN 2E 353** | | **180M-4** | 60000 | 67000 | 296 |
| **38.6** | 4300 | 1.12 | 36.3 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **46.7** | 3560 | 1.6 | 30 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **53.8** | 3080 | 1.7 | 26 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **62.5** | 2660 | 2.12 | 22.4 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **78.3** | 2120 | 2.36 | 17.9 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **92.3** | 1800 | 2.36 | 15.2 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **104** | 1600 | 2.36 | 13.5 | 11.8 | **MN 2E 280** | | **180M-4** | 47500 | 53000 | 245 |
| **45.2** | 3680 | 0.95 | 31 | 9.5 | **MN 2E 241** | | **180M-4** | 30000 | 35500 | 194 |
| **56.6** | 2940 | 1.12 | 24.8 | 9.5 | **MN 2E 241** | | **180M-4** | 30000 | 35500 | 194 |
| **65.7** | 2530 | 1.5 | 21.3 | 9.5 | **MN 2E 241** | | **180M-4** | 30000 | 35500 | 194 |
| **82.3** | 2020 | 1.6 | 17 | 9.5 | **MN 2E 241** | | **180M-4** | 30000 | 35500 | 194 |
| **97** | 1710 | 1.6 | 14.4 | 9.5 | **MN 2E 241** | | **180M-4** | 30000 | 35500 | 194 |
| **114** | 1450 | 1.6 | 12.3 | 9.5 | **MN 2E 241** | | **180M-4** | 30000 | 35500 | 194 |
| **125** | 1280 | 0.97 | 11.2 | 22.8 | **MN 1E 353** | | **180M-4** | 60000 | 67000 | 314 |
| **140** | 1143 | 1.48 | 10 | 22.8 | **MN 1E 353** | | **180M-4** | 60000 | 67000 | 314 |
| **156** | 1028 | 2.06 | 9 | 22.8 | **MN 1E 353** | | **180M-4** | 60000 | 67000 | 314 |
| **175** | 914 | 2.64 | 8 | 22.8 | **MN 1E 353** | | **180M-4** | 60000 | 67000 | 314 |
| **197** | 811 | 4.05 | 7.1 | 22.8 | **MN 1E 353** | | **180M-4** | 60000 | 67000 | 314 |
| **222** | 720 | 5.68 | 6.3 | 22.8 | **MN 1E 353** | | **180M-4** | 60000 | 67000 | 314 |
| **140** | 1143 | 1.04 | 10 | 16.4 | **MN 1E 280** | | **180M-4** | 47500 | 53000 | 263 |
| **156** | 1028 | 1.22 | 9 | 16.4 | **MN 1E 280** | | **180M-4** | 47500 | 53000 | 263 |
| **175** | 914 | 1.72 | 8 | 16.4 | **MN 1E 280** | | **180M-4** | 47500 | 53000 | 263 |
| **197** | 811 | 2.43 | 7.1 | 16.4 | **MN 1E 280** | | **180M-4** | 47500 | 53000 | 263 |
| **222** | 720 | 3.32 | 6.3 | 16.4 | **MN 1E 280** | | **180M-4** | 47500 | 53000 | 263 |
| **250** | 640 | 4.14 | 5.6 | 16.4 | **MN 1E 280** | | **180M-4** | 47500 | 53000 | 263 |

## TECHNICAL DATA

### $P_1$ = 18.5kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **156** | 1028 | 0.84 | 9 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **175** | 914 | 1.10 | 8 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **197** | 811 | 1.49 | 7.1 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **222** | 720 | 2.21 | 6.3 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **250** | 640 | 2.84 | 5.6 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **280** | 571 | 4.22 | 5 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **311** | 514 | 4.86 | 4.5 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |
| **350** | 457 | 5.68 | 4 | 13.5 | **MN 1E 240** | | **180M-4** | 30000 | 35500 | 219 |

### $P_1$ = 22kW $n_1$=1400rpm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1.73** | 108100 | 1.7 | 810 | 26.5 | **MN 4E 696** | **180L-4** | 250000 | 265000 | 1400 |
| **2.19** | 85260 | 2.12 | 638 | 26.5 | **MN 4E 696** | **180L-4** | 250000 | 265000 | 1400 |
| **2.6** | 71840 | 2.65 | 538 | 26.5 | **MN 4E 696** | **180L-4** | 250000 | 265000 | 1400 |
| **2.19** | 85260 | 1.7 | 638 | 25.8 | **MN 4E 695** | **180L-4** | 250000 | 265000 | 1312 |
| **2.6** | 71840 | 2.12 | 538 | 25.8 | **MN 4E 695** | **180L-4** | 250000 | 265000 | 1312 |
| **3.34** | 55980 | 2.65 | 419 | 25.8 | **MN 4E 695** | **180L-4** | 250000 | 265000 | 1312 |
| **4.01** | 46650 | 3 | 349 | 25.8 | **MN 4E 695** | **180L-4** | 250000 | 265000 | 1312 |
| **4.96** | 37720 | 2.8 | 282 | 21.2 | **MN 4E 543** | **180L-4** | 180000 | 190000 | 854 |
| **5.84** | 32000 | 3.15 | 240 | 21.2 | **MN 4E 543** | **180L-4** | 180000 | 190000 | 854 |
| **5.79** | 33030 | 2 | 242 | 30.8 | **MN 3E 543** | **180L-4** | 180000 | 190000 | 835 |
| **6.87** | 27830 | 2.8 | 204 | 30.8 | **MN 3E 543** | **180L-4** | 180000 | 190000 | 835 |
| **5.52** | 33900 | 2.24 | 254 | 19.5 | **MN 4E 542** | **180L-4** | 150000 | 160000 | 757 |
| **6.2** | 30180 | 2.24 | 226 | 19.5 | **MN 4E 542** | **180L-4** | 150000 | 160000 | 757 |
| **5.81** | 32900 | 1.7 | 241 | 28.8 | **MN 3E 542** | **180L-4** | 150000 | 160000 | 744 |
| **7.13** | 26800 | 2.5 | 196 | 28.8 | **MN 3E 542** | **180L-4** | 150000 | 160000 | 744 |
| **9.15** | 20890 | 3 | 153 | 28.8 | **MN 3E 542** | **180L-4** | 150000 | 160000 | 744 |
| **7.31** | 26150 | 1.8 | 192 | 21.8 | **MN 3E 446** | **180L-4** | 125000 | 132000 | 528 |
| **8.97** | 21310 | 2.12 | 156 | 21.8 | **MN 3E 446** | **180L-4** | 125000 | 132000 | 528 |
| **10.6** | 17960 | 3 | 131 | 21.8 | **MN 3E 446** | **180L-4** | 125000 | 132000 | 528 |
| **8.97** | 21310 | 1.8 | 156 | 20.6 | **MN 3E 445** | **180L-4** | 112000 | 118000 | 516 |
| **10.6** | 17960 | 2.36 | 131 | 20.6 | **MN 3E 445** | **180L-4** | 112000 | 118000 | 516 |
| **12.4** | 15460 | 2.8 | 113 | 20.6 | **MN 3E 445** | **180L-4** | 112000 | 118000 | 516 |
| **10.9** | 17600 | 1.9 | 129 | 19.8 | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **13.9** | 13710 | 2.36 | 100 | 19.8 | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **16.2** | 11810 | 2.8 | 86.5 | 19.8 | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **20.3** | 9430 | 3.35 | 69 | 19.8 | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **13.2** | 14430 | 1.6 | 106 | 16.8 | **MN 3E 428** | **180L-4** | 90000 | 97500 | 403 |
| **15.3** | 12510 | 1.8 | 91.6 | 16.8 | **MN 3E 428** | **180L-4** | 90000 | 97500 | 403 |
| **19.1** | 9990 | 2.24 | 73.1 | 16.8 | **MN 3E 428** | **180L-4** | 90000 | 97500 | 403 |
| **22.6** | 8470 | 2.12 | 62 | 16.8 | **MN 3E 428** | **180L-4** | 90000 | 97500 | 403 |
| **15.3** | 12510 | 1.5 | 91.6 | 13.2 | **MN 3E 355** | **180L-4** | 71000 | 80000 | 339 |
| **19.1** | 9990 | 1.8 | 73.1 | 13.2 | **MN 3E 355** | **180L-4** | 71000 | 80000 | 339 |
| **22.6** | 8470 | 1.7 | 62 | 13.2 | **MN 3E 355** | **180L-4** | 71000 | 80000 | 339 |

## TECHNICAL DATA

**$P_1$= 22kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **23.9** | 8000 | 3.35 | 58.6 | 19.8 | | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **28.5** | 6700 | 3.35 | 49.1 | 19.8 | | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **34** | 5620 | 3.35 | 41.1 | 19.8 | | **MN 3E 429** | **180L-4** | 100000 | 106000 | 455 |
| **25.3** | 7540 | 2 | 55.2 | 16.8 | | **MN 3E 428** | **180L-4** | 90000 | 97500 | 403 |
| **30.5** | 6470 | 2.36 | 45.9 | 21.2 | | **MN 2E 428** | **180L-4** | 90000 | 97500 | 390 |
| **37.4** | 5270 | 3 | 37.4 | 21.2 | | **MN 2E 428** | **180L-4** | 90000 | 97500 | 390 |
| **25.3** | 7540 | 1.7 | 55.2 | 13.2 | | **MN 3E 355** | **180L-4** | 71000 | 80000 | 339 |
| **30.5** | 6470 | 1.8 | 45.9 | 18 | | **MN 2E 355** | **180L-4** | 71000 | 80000 | 325 |
| **36.2** | 5450 | 2.5 | 38.7 | 18 | | **MN 2E 355** | **180L-4** | 71000 | 80000 | 325 |
| **44.4** | 4440 | 3.15 | 31.5 | 18 | | **MN 2E 355** | **180L-4** | 71000 | 80000 | 325 |
| **31** | 6370 | 1.5 | 45.2 | 16 | | **MN 2E 354** | **180L-4** | 71000 | 80000 | 313 |
| **37.4** | 5270 | 1.9 | 37.4 | 16 | | **MN 2E 354** | **180L-4** | 71000 | 80000 | 313 |
| **44.4** | 4440 | 2.36 | 31.5 | 16 | | **MN 2E 354** | **180L-4** | 71000 | 80000 | 313 |
| **51.6** | 3830 | 3 | 27.1 | 16 | | **MN 2E 354** | **180L-4** | 71000 | 80000 | 313 |
| **31** | 6370 | 1.06 | 45.2 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **36.8** | 5370 | 1.4 | 38.1 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **44.4** | 4440 | 1.9 | 31.5 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **57** | 3460 | 2.36 | 24.5 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **66.2** | 2980 | 3 | 21.1 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **83** | 2380 | 3.15 | 16.9 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **97.8** | 2020 | 3.35 | 14.3 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **117** | 1690 | 3.35 | 12 | 15 | **MN 2E 353** | | **180L-4** | 60000 | 67000 | 296 |
| **125** | 1522 | 0.82 | 11.2 | 22.8 | **MN 1E 353** | | **180L-4** | 60000 | 67000 | 325 |
| **140** | 1359 | 1.24 | 10 | 22.8 | **MN 1E 353** | | **180L-4** | 60000 | 67000 | 325 |
| **156** | 1223 | 1.73 | 9 | 22.8 | **MN 1E 353** | | **180L-4** | 60000 | 67000 | 325 |
| **175** | 1087 | 2.22 | 8 | 22.8 | **MN 1E 353** | | **180L-4** | 60000 | 67000 | 325 |
| **197** | 965 | 3.41 | 7.1 | 22.8 | **MN 1E 353** | | **180L-4** | 60000 | 67000 | 325 |
| **222** | 856 | 4.77 | 6.3 | 22.8 | **MN 1E 353** | | **180L-4** | 60000 | 67000 | 325 |
| **38.6** | 5110 | 0.95 | 36.3 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **46.7** | 4230 | 1.4 | 30 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **53.8** | 3670 | 1.4 | 26 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **62.5** | 3160 | 1.8 | 22.4 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **78.3** | 2520 | 2 | 17.9 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **92.3** | 2140 | 2 | 15.2 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **104** | 1900 | 2 | 13.5 | 11.8 | **MN 2E 280** | | **180L-4** | 47500 | 53000 | 296 |
| **140** | 1359 | 0.87 | 10 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |
| **156** | 1223 | 1.02 | 9 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |
| **175** | 1087 | 1.45 | 8 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |
| **197** | 965 | 2.05 | 7.1 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |
| **222** | 856 | 2.80 | 6.3 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |
| **250** | 761 | 3.48 | 5.6 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |
| **280** | 679 | 5.11 | 5 | 16.4 | **MN 1E 280** | | **180L-4** | 47500 | 53000 | 274 |

## TECHNICAL DATA

**$P_1$ = 30kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **2.6** | 97960 | 1.9 | 538 | 26.5 | | **MN 4E 696** | **200L-4** | 250000 | 265000 | 1433 |
| **3.34** | 76330 | 2.36 | 419 | 26.5 | | **MN 4E 696** | **200L-4** | 250000 | 265000 | 1433 |
| **4.01** | 63610 | 2.8 | 349 | 26.5 | | **MN 4E 696** | **200L-4** | 250000 | 265000 | 1433 |
| **3.34** | 76330 | 1.9 | 419 | 25 | | **MN 4E 695** | **200L-4** | 250000 | 265000 | 1345 |
| **4.01** | 63610 | 2.24 | 349 | 25 | | **MN 4E 695** | **200L-4** | 250000 | 265000 | 1345 |
| **4.63** | 55130 | 2.5 | 303 | 25 | | **MN 4E 695** | **200L-4** | 250000 | 265000 | 1345 |
| **5.2** | 49070 | 2.65 | 269 | 25 | | **MN 4E 695** | **200L-4** | 250000 | 265000 | 1345 |
| **6.2** | 41130 | 2.8 | 226 | 25 | | **MN 4E 695** | **200L-4** | 250000 | 265000 | 1345 |
| **5.84** | 43640 | 2.24 | 240 | 21.2 | | **MN 4E 543** | **200L-4** | 180000 | 190000 | 887 |
| **6.97** | 36580 | 2.36 | 201 | 21.2 | | **MN 4E 543** | **200L-4** | 180000 | 190000 | 887 |
| **5.79** | 45050 | 1.5 | 242 | 30 | | **MN 3E 543** | **200L-4** | 180000 | 190000 | 868 |
| **6.87** | 37960 | 2.12 | 204 | 30 | | **MN 3E 543** | **200L-4** | 180000 | 190000 | 868 |
| **8.82** | 29580 | 2.8 | 159 | 30 | | **MN 3E 543** | **200L-4** | 180000 | 190000 | 868 |
| **7.13** | 36550 | 1.8 | 196 | 28 | | **MN 3E 542** | **200L-4** | 150000 | 160000 | 777 |
| **9.15** | 28480 | 2.12 | 153 | 28 | | **MN 3E 542** | **200L-4** | 150000 | 160000 | 777 |
| **10.9** | 24000 | 2.8 | 129 | 28 | | **MN 3E 542** | **200L-4** | 150000 | 160000 | 777 |
| **8.97** | 29060 | 1.5 | 156 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **10.6** | 24480 | 2.12 | 131 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **13.7** | 19080 | 2.8 | 102 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **16.4** | 15900 | 3.15 | 85.4 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **18.9** | 13780 | 3.55 | 74 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **21.3** | 12260 | 3.15 | 65.9 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **25.4** | 10280 | 3.15 | 55.2 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **32.3** | 8080 | 3.15 | 43.4 | 21.8 | | **MN 3E 446** | **200L-4** | 125000 | 132000 | 561 |
| **12.4** | 21080 | 2.12 | 113 | 20.6 | | **MN 3E 445** | **200L-4** | 112000 | 118000 | 548 |
| **15.5** | 16830 | 2.5 | 90.4 | 20.6 | | **MN 3E 445** | **200L-4** | 112000 | 118000 | 548 |
| **19.9** | 13120 | 2.8 | 70.4 | 20.6 | | **MN 3E 445** | **200L-4** | 112000 | 118000 | 548 |
| **23.4** | 11130 | 2.65 | 59.8 | 20.6 | | **MN 3E 445** | **200L-4** | 112000 | 118000 | 548 |
| **28** | 9330 | 2.65 | 50.1 | 20.6 | | **MN 3E 445** | **200L-4** | 112000 | 118000 | 548 |
| **35.6** | 7330 | 2.65 | 39.4 | 20.6 | | **MN 3E 445** | **200L-4** | 112000 | 118000 | 548 |
| **36.2** | 7450 | 3.35 | 38.7 | 20.6 | | **MN 2E 445** | **200L-4** | 112000 | 118000 | 530 |
| **13.9** | 18700 | 1.7 | 100 | 19 | | **MN 3E 429** | **200L-4** | 100000 | 106000 | 488 |
| **16.2** | 16100 | 2.12 | 86.5 | 19 | | **MN 3E 429** | **200L-4** | 100000 | 106000 | 488 |
| **20.3** | 12860 | 2.5 | 69 | 19 | | **MN 3E 429** | **200L-4** | 100000 | 106000 | 488 |
| **23.9** | 10910 | 2.36 | 58.6 | 19 | | **MN 3E 429** | **200L-4** | 100000 | 106000 | 488 |
| **28.5** | 9140 | 2.36 | 49.1 | 19 | | **MN 3E 429** | **200L-4** | 100000 | 106000 | 488 |
| **34** | 7660 | 2.36 | 41.1 | 19 | | **MN 3E 429** | **200L-4** | 100000 | 106000 | 488 |
| **30.5** | 8830 | 1.7 | 45.9 | 21.2 | | **MN 2E 428** | **200L-4** | 90000 | 97500 | 423 |
| **30.5** | 8830 | 1.32 | 45.9 | 18 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **36.2** | 7440 | 1.8 | 38.7 | 18 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **31** | 8690 | 1.12 | 45.2 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **37.4** | 7190 | 1.4 | 37.4 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |

## TECHNICAL DATA

### $P_1$ = 30kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW | | | | $Fr_{2MAX}$ [N] | | Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **36.1** | 7470 | 2.8 | 38.8 | 25 | | **MN 2E 429** | **200L-4** | 100000 | 106000 | 469 |
| **42.8** | 6290 | 3.75 | 32.7 | 25 | | **MN 2E 429** | **200L-4** | 100000 | 106000 | 469 |
| **37.4** | 7190 | 2.12 | 37.4 | 21.2 | | **MN 2E 428** | **200L-4** | 90000 | 97500 | 423 |
| **44.4** | 6060 | 2.8 | 31.5 | 21.2 | | **MN 2E 428** | **200L-4** | 90000 | 97500 | 423 |
| **44.4** | 6060 | 2.24 | 31.5 | 15 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **57** | 4720 | 3 | 24.5 | 15 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **68.4** | 3930 | 3.35 | 20.5 | 15 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **79** | 3410 | 3.55 | 17.7 | 15 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **88.7** | 3040 | 3 | 15.8 | 15 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **106** | 2540 | 3 | 13.2 | 15 | | **MN 2E 355** | **200L-4** | 71000 | 80000 | 358 |
| **44.4** | 6060 | 1.7 | 31.5 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **51.6** | 5220 | 2.12 | 27.1 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **64.6** | 4170 | 2.5 | 21.7 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **83** | 3250 | 2.8 | 16.9 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **97.8** | 2750 | 2.65 | 14.3 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **117** | 2310 | 2.65 | 12 | 16 | | **MN 2E 354** | **200L-4** | 71000 | 80000 | 345 |
| **44.4** | 6060 | 1.4 | 31.5 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **57** | 4720 | 1.7 | 24.5 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **66.2** | 4070 | 2.24 | 21.1 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **83** | 3250 | 2.36 | 16.9 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **97.8** | 2750 | 2.36 | 14.3 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **117** | 2310 | 2.36 | 12 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **36.8** | 7320 | 1.06 | 38.1 | 15 | **MN 2E 353** | | **200L-4** | 60000 | 67000 | 329 |
| **140** | 1853 | 0.91 | 10 | 22.8 | **MN 1E 353** | | **200L-4** | 60000 | 67000 | 408 |
| **156** | 1667 | 1.27 | 9 | 22.8 | **MN 1E 353** | | **200L-4** | 60000 | 67000 | 408 |
| **175** | 1482 | 1.63 | 8 | 22.8 | **MN 1E 353** | | **200L-4** | 60000 | 67000 | 408 |
| **197** | 1315 | 2.5 | 7.1 | 22.8 | **MN 1E 353** | | **200L-4** | 60000 | 67000 | 408 |
| **222** | 1167 | 3.5 | 6.3 | 22.8 | **MN 1E 353** | | **200L-4** | 60000 | 67000 | 408 |
| **250** | 1038 | 4.47 | 5.6 | 22.8 | **MN 1E 353** | | **200L-4** | 60000 | 67000 | 408 |
| **175** | 1482 | 1.06 | 8 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |
| **197** | 1315 | 1.50 | 7.1 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |
| **222** | 1167 | 2.05 | 6.3 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |
| **250** | 1038 | 2.55 | 5.6 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |
| **280** | 926 | 3.75 | 5 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |
| **311** | 834 | 4.80 | 4.5 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |
| **350** | 741 | 5.00 | 4 | 16.4 | **MN 1E 280** | | **200L-4** | 47500 | 53000 | 408 |

### $P_1$ = 37kW $n_1$=1400rpm

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.34** | 94150 | 1.9 | 419 | | | **MN 4E 696** | **225S-4** | 250000 | 265000 | 1503 |
| **41** | 78450 | 1.8 | 349 | | | **MN 4E 695** | **225S-4** | 250000 | 265000 | 1415 |

## TECHNICAL DATA

**$P_1$ = 37 kW $n_1$=1400rpm**

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | |
| **41** | 78450 | 2.24 | 349 | 26.5 | | **MN 4E 696** | **225S-4** | 250000 | 265000 | 1503 |
| **4.63** | 67990 | 2.65 | 303 | 26.5 | | **MN 4E 696** | **225S-4** | 250000 | 265000 | 1503 |
| **5.2** | 60520 | 2.65 | 269 | 26.5 | | **MN 4E 696** | **225S-4** | 250000 | 265000 | 1503 |
| **6.2** | 50720 | 2.8 | 226 | 26.5 | | **MN 4E 696** | **225S-4** | 250000 | 265000 | 1503 |
| **4.63** | 67990 | 2.12 | 303 | 25.8 | | **MN 4E 695** | **225S-4** | 250000 | 265000 | 1415 |
| **5.2** | 60520 | 2.12 | 269 | 25.8 | | **MN 4E 695** | **225S-4** | 250000 | 265000 | 1415 |
| **6.2** | 50720 | 2.36 | 226 | 25.8 | | **MN 4E 695** | **225S-4** | 250000 | 265000 | 1415 |
| **6.87** | 46810 | 1.7 | 204 | 30 | | **MN 3E 543** | **225S-4** | 180000 | 190000 | 938 |
| **8.82** | 36480 | 2.24 | 159 | 30 | | **MN 3E 543** | **225S-4** | 180000 | 190000 | 938 |
| **10.5** | 30740 | 3 | 134 | 30 | | **MN 3E 543** | **225S-4** | 180000 | 190000 | 938 |
| **12.4** | 25900 | 3.35 | 113 | 30 | | **MN 3E 543** | **225S-4** | 180000 | 190000 | 938 |
| **9.15** | 35130 | 1.7 | 153 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **10.9** | 29600 | 2.24 | 129 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **13** | 24660 | 2.65 | 107 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **16.7** | 19220 | 3.15 | 83.7 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **19.3** | 16660 | 3.55 | 72.5 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **21.7** | 14830 | 3.35 | 64.6 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **25.9** | 12430 | 3.35 | 54.1 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **30.9** | 10401 | 3.35 | 45.3 | 28 | | **MN 3E 542** | **225S-4** | 150000 | 180000 | 847 |
| **10.6** | 30200 | 1.7 | 131 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **13.7** | 23530 | 2.24 | 102 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **16.4** | 19610 | 2.5 | 85.4 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **18.9** | 16990 | 2.8 | 74 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **21.3** | 15130 | 2.65 | 65.9 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **25.4** | 12680 | 2.65 | 55.2 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **32.3** | 9970 | 2.65 | 43.4 | 21.8 | | **MN 3E 446** | **225S-4** | 125000 | 132000 | 632 |
| **36.2** | 9190 | 2.8 | 38.7 | 29 | | **MN 2E 445** | **225S-4** | 112000 | 118000 | 600 |
| **42.4** | 7830 | 3.75 | 33 | 29 | | **MN 2E 445** | **225S-4** | 112000 | 118000 | 600 |
| **36.1** | 9210 | 2.24 | 38.8 | 25 | | **MN 2E 429** | **225S-4** | 100000 | 106000 | 540 |
| **42.8** | 7760 | 3.15 | 32.7 | 25 | | **MN 2E 429** | **225S-4** | 100000 | 106000 | 540 |
| **30.5** | 10890 | 1.4 | 45.9 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **37.4** | 8870 | 1.7 | 37.4 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **44.4** | 7470 | 2.24 | 31.5 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **53.3** | 6230 | 3 | 26.3 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **68.4** | 4850 | 3.15 | 20.5 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **79** | 4210 | 3.35 | 17.7 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **88.7** | 3740 | 2.8 | 15.8 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **106** | 3140 | 2.8 | 13.2 | 21.2 | | **MN 2E 428** | **225S-4** | 90000 | 97500 | 493 |
| **30.5** | 10890 | 1.06 | 45.9 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **36.2** | 9170 | 1.5 | 38.7 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **44.4** | 7470 | 1.8 | 31.5 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **57** | 5820 | 2.36 | 24.5 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **68.4** | 4850 | 2.65 | 20.5 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **79** | 4210 | 2.8 | 17.7 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **88.7** | 3740 | 2.36 | 15.8 | 18 | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |

## TECHNICAL DATA

### $P_1$ = 37kW $n_1$=1400rpm

| $n_2$ rpm | $M_2$ Nm | $f_s$ | i | Pt KW |  |  |  | $Fr_{2MAX}$ [N] | |  |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C | S | Kg |
| **106** | 3140 | 2.36 | 13.2 | | | **MN 2E 355** | **225S-4** | 71000 | 80000 | 429 |
| **156** | 2057 | 1.03 | 9 | 22.8 | **MN 1E 353** | | **225S-4** | 60000 | 67000 | 546 |
| **175** | 1828 | 1.32 | 8 | 22.8 | **MN 1E 353** | | **225S-4** | 60000 | 67000 | 546 |
| **197** | 1622 | 2.03 | 7.1 | 22.8 | **MN 1E 353** | | **225S-4** | 60000 | 67000 | 546 |
| **222** | 1440 | 2.84 | 6.3 | 22.8 | **MN 1E 353** | | **225S-4** | 60000 | 67000 | 546 |
| **250** | 1280 | 3.62 | 5.6 | 22.8 | **MN 1E 353** | | **225S-4** | 60000 | 67000 | 546 |
| **280** | 1143 | 5.35 | 5 | 22.8 | **MN 1E 353** | | **225S-4** | 60000 | 67000 | 546 |

### $P_1$ = 45kW $n_1$=1400rpm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **5.79** | 67570 | 0.95 | 242 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **6.87** | 56930 | 1.4 | 204 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **8.82** | 44360 | 1.9 | 159 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **10.5** | 37380 | 2.5 | 134 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **12.4** | 31500 | 2.8 | 113 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **15.9** | 24540 | 3.35 | 87.9 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **20.4** | 19120 | 4.25 | 68.5 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **24.4** | 16030 | 3.75 | 57.4 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **29.1** | 13430 | 3.75 | 48.1 | 30 | **MN 3E 543** | **225M-4** | 180000 | 190000 | 938 |
| **36.2** | 11170 | 2.24 | 38.7 | 29 | **MN 2E 445** | **225M-4** | 112000 | 118000 | 600 |
| **42.4** | 9520 | 3.15 | 33 | 29 | **MN 2E 445** | **225M-4** | 112000 | 118000 | 600 |
| **53.8** | 7500 | 3.55 | 26 | 29 | **MN 2E 445** | **225M-4** | 112000 | 118000 | 600 |
| **36.1** | 11200 | 1.9 | 38.8 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |
| **42.8** | 9440 | 2.5 | 32.7 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |
| **50.8** | 7950 | 2.8 | 27.6 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |
| **65.2** | 6200 | 3.35 | 21.5 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |
| **83.7** | 4830 | 4 | 16.7 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |
| **99.8** | 4050 | 3.75 | 14 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |
| **119** | 3390 | 3.75 | 11.8 | 25 | **MN 2E 429** | **225M-4** | 100000 | 106000 | 493 |

### $P_1$ = 55kW $n_1$=1400rpm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **36.2** | 13660 | 1.9 | 38.7 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |
| **42.4** | 11630 | 2.65 | 33 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |
| **53.8** | 9170 | 3 | 26 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |
| **63.9** | 7730 | 3.75 | 21.9 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |
| **82** | 6020 | 4.75 | 17.1 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |
| **97.8** | 5050 | 4.5 | 14.3 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |
| **124** | 3970 | 4.5 | 11.3 | 29 | **MN 2E 445** | **250M-4** | 112000 | 118000 | 661 |

## Mounting dimensions

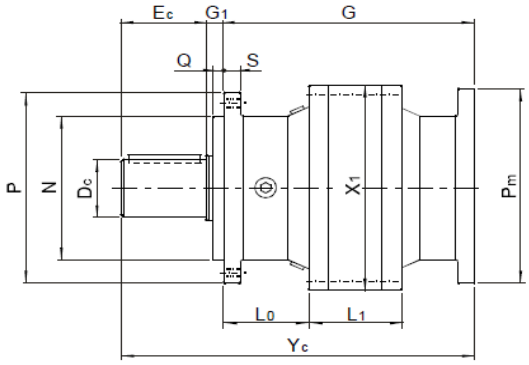
planetary gear motor

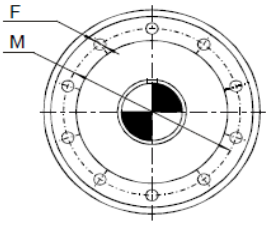
1 stage planetary gear

in line transmission with motor

size 200~353

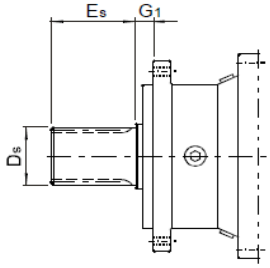
**MN 1E200~353...C1C**



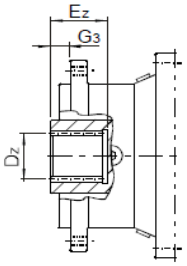




**Other shaft ends**

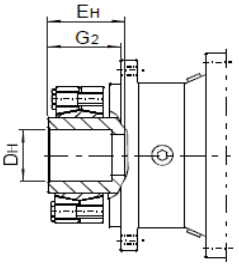
**MN 1E200~353...C1S**




**MN 1E200~353...C1Z**




**MN 1E200~353...C1H**




1) for cylindrical shaft details,see page 152;

2) for splined shaft details,see page 152;

2) for splined hollow shaft details,see page 153;

3) for hollow shaft with shrink disk details,see page 153;

4) for output flange details,see page 151;

5) can add foot on output flange,the details on page 154;

6) for motor dimensions,see page 155.

## Mounting dimensions

planetary gear motor

1 stage planetary gear

in line transmission with motor

size 200~353

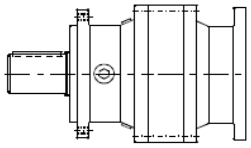
| size | $X_1$ Ø | $L_1$ | $D_C$ Ø | $E_C$ | $D_S$ | $E_S$ | $D_H$ Ø | $E_H$ | $D_Z$ |
|---|---|---|---|---|---|---|---|---|---|
| **200** | 200 | 49 | 42 | 82 | EXT 24zx2mx30 | 55 | 50 | 72 | INT 24zx2mx30 |
| **201** | 200 | 61 | 50 | 82 | EXT 24zx2mx30 | 55 | 50 | 72 | INT 24zx2mx30 |
| **240** | 240 | 63 | 65 | 105 | EXT 28zx2mx30 | 68 | 75 | 100 | INT 28zx2mx30 |
| **241** | 240 | 78 | 65 | 105 | EXT 28zx2mx30 | 68 | 75 | 100 | INT 28zx2mx30 |
| **280** | 280 | 82 | 80 | 130 | EXT 34zx2mx30 | 90 | 85 | 145 | INT 34zx2mx30 |
| **353** | 353 | 92 | 90 | 130 | EXT 40zx2mx30 | 90 | 100 | 140 | INT 40zx2mx30 |

| size | $E_Z$ | $G_1$ | $G_2$ | $G_3$ | $L_0$ | M Ø | N Øf7 | Q | P Ø | S | weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **200** | 42.5 | 6 | 50 | 6 | 62.5 | 165 | 110 | 5 | 185 | 12 | 21 |
| **201** | 42.5 | 6 | 56 | 6 | 62.5 | 165 | 110 | 5 | 185 | 12 | 24 |
| **240** | 54 | 15 | 85 | 15 | 89 | 195 | 150 | 14 | 220 | 18 | 43 |
| **241** | 54 | 15 | 85 | 15 | 89 | 195 | 150 | 14 | 220 | 18 | 48 |
| **280** | 82 | 40 | 115 | 40 | 142 | 250 | 200 | 15 | 280 | 22 | 87 |
| **353** | 85 | 36 | 120 | 36 | 124 | 295 | 230 | 10 | 325 | 25 | 138 |

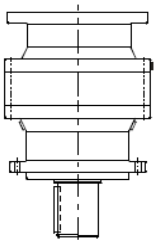
| size | G | | | | | | | | $P_m$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | motor frame | | | | | | | | motor frame | | | | | | | |
| | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 |
| **200** | 158 | 158 | 176 | 176 | 189 | | | | 200 | 200 | 250 | 250 | 300 | | | |
| **201** | | 170 | 188 | 188 | 201 | | | | | 200 | 250 | 250 | 300 | | | |
| **240** | | | 208 | 208 | 221 | 221 | | | | | 250 | 250 | 300 | 350 | | |
| **241** | | | 250 | 250 | 263 | 229 | 229 | | | | 250 | 250 | 300 | 350 | 350 | |
| **280** | | | | | 354 | 408 | 408 | | | | | | 300 | 350 | 350 | |
| **353** | | | | | 350 | 404 | 404 | 434 | | | | | 300 | 350 | 350 | 400 |

### Mounting positions and oil quantity(L)

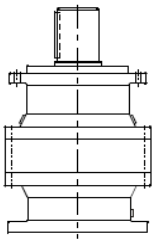
B5



V1



V3



| size | B5 | V1,V3 |
|---|---|---|
| **200** | 0.45 | 0.8 |
| **201** | 0.65 | 1.1 |
| **240** | 0.95 | 1.7 |
| **241** | 1.25 | 2.2 |
| **280** | 2.0 | 3.2 |
| **353** | 3.0 | 5.5 |

## Mounting dimensions

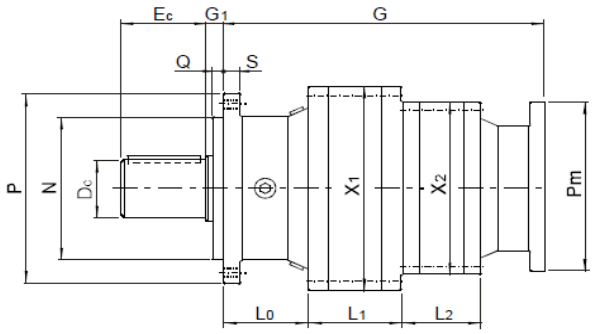
planetary gear motor

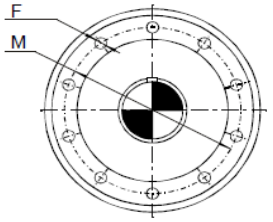
2 stage planetary gear

in line transmission with motor

size 200~353

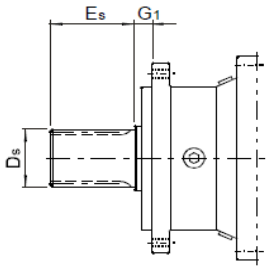
**MN 2E200~353...C1C**



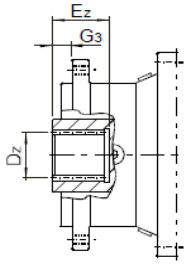




**Other shaft ends**

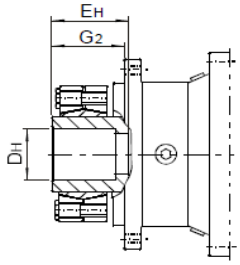
**MN 2E200~353...C1S**




**MN 2E200~353...C1Z**




**MN 2E200~353...C1H**




1) for cylindrical shaft details, see page 152;

2) for splined shaft details, see page 152;

2) for splined hollow shaft details, see page 153;

3) for hollow shaft with shrink disk details, see page 153;

4) for output flange details, see page 151;

5) can add foot on output flange, the details on page 154;

6) for motor dimensions, see page 155.

## Mounting dimensions

planetary gear motor

2 stage planetary gear

in line transmission with motor

size 200~353

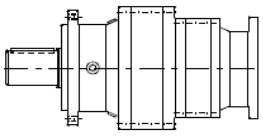
| size | $X_1$ Ø | $L_1$ | $X_2$ Ø | $L_2$ | $D_C$ Ø | $E_C$ | $D_S$ | $E_S$ | $D_H$ Ø | $E_H$ | $D_Z$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **200** | 200 | 49 | 200 | 48 | 42 | 82 | EXT 24zx2mx30 | 55 | 50 | 72 | INT 24zx2mx30 |
| **201** | 200 | 61 | 200 | 48 | 50 | 82 | EXT 24zx2mx30 | 55 | 50 | 72 | INT 24zx2mx30 |
| **240** | 240 | 63 | 200 | 48 | 65 | 105 | EXT 28zx2mx30 | 68 | 75 | 100 | INT 28zx2mx30 |
| **241** | 240 | 78 | 200 | 60 | 65 | 105 | EXT 28zx2mx30 | 68 | 75 | 100 | INT 28zx2mx30 |
| **280** | 280 | 72 | 240 | 70 | 80 | 130 | EXT 34zx2mx30 | 90 | 85 | 145 | INT 34zx2mx30 |
| **353** | 353 | 92 | 240 | 76 | 90 | 130 | EXT 40zx2mx30 | 90 | 100 | 140 | INT 40zx2mx30 |

| size | $E_Z$ | $G_1$ | $G_2$ | $G_3$ | $L_0$ | M Ø | N Øf7 | Q | P Ø | S | weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **200** | 42.5 | 6 | 50 | 6 | 62.5 | 165 | 110 | 5 | 185 | 12 | 29 |
| **201** | 42.5 | 6 | 56 | 6 | 62.5 | 165 | 110 | 5 | 185 | 12 | 32 |
| **240** | 54 | 15 | 85 | 15 | 89 | 195 | 150 | 14 | 220 | 18 | 51 |
| **241** | 54 | 15 | 85 | 15 | 89 | 195 | 150 | 14 | 220 | 18 | 59 |
| **280** | 82 | 40 | 115 | 40 | 142 | 250 | 200 | 15 | 280 | 22 | 102 |
| **353** | 85 | 36 | 120 | 36 | 124 | 295 | 230 | 10 | 325 | 25 | 153 |

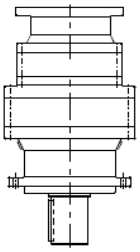
| size | G | | | | | | | | $P_m$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | motor frame | | | | | | | | motor frame | | | | | | | |
| | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 |
| **200** | 206 | 206 | 224 | 224 | 237 | | | | 200 | 200 | 250 | 250 | 300 | | | |
| **201** | | 218 | 236 | 236 | 249 | | | | | 200 | 250 | 250 | 300 | | | |
| **240** | | | 263 | 263 | 276 | 276 | | | | | 250 | 250 | 300 | 350 | | |
| **241** | | | 290 | 290 | 303 | 369 | 369 | | | | 250 | 250 | 300 | 350 | 350 | |
| **280** | | | | | 368 | 422 | 422 | | | | | | 300 | 350 | 350 | |
| **353** | | | | | 365 | 419 | 419 | 449 | | | | | 300 | 350 | 350 | 400 |

### Mounting positions and oil quantity(L)

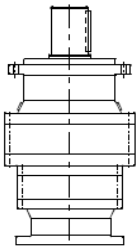
**B5**



**V1**



**V3**



| size | B5 | V1,V3 |
|---|---|---|
| **200** | 0.9 | 1.6 |
| **201** | 1.1 | 1.9 |
| **240** | 1.4 | 2.5 |
| **241** | 1.9 | 3.3 |
| **280** | 2.8 | 4.9 |
| **353** | 4.1 | 7.2 |

## Mounting dimensions

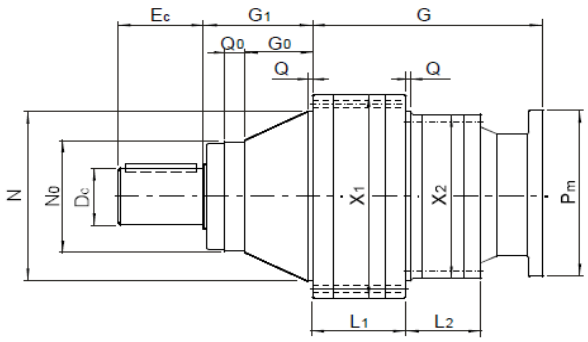
planetary gear motor

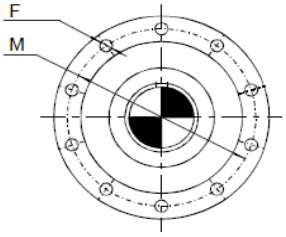
2 stage planetary gear

in line transmission with motor

size 354~445

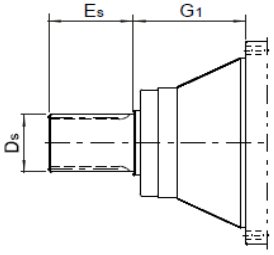
**MN 2E354~445...C2C**



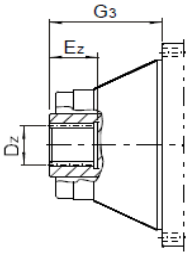




**Other shaft ends**

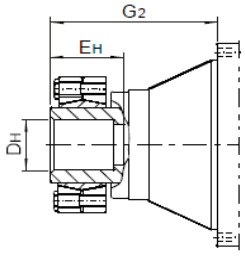
**MN 2E354~445...C2S**




**MN 2E354~445...C2Z**




**MN 2E354~445...C2H**




1) for cylindrical shaft details, see page 152;

2) for splined shaft details, see page 152;

2) for splined hollow shaft details, see page 153;

3) for hollow shaft with shrink disk details, see page 153;

4) for output flange details, see page 151;

5) can add foot on output flange, the details on page 154;

6) for motor dimensions, see page 155.

## Mounting dimensions

planetary gear motor

2 stage planetary gear

in line transmission with motor

size 354~445

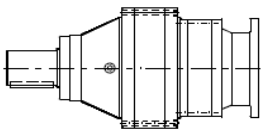
| size | $X_1$ Ø | $L_1$ | $X_2$ Ø | $L_2$ | $D_C$ Ø | $E_C$ | $D_S$ | $E_S$ | $D_H$ Ø | $E_H$ | $D_Z$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **354** | 353 | 138 | 240 | 79 | 100 | 130 | EXT 29zx3mx30 | 90 | 110 | 160 | INT 29zx3mx30 |
| **355** | 353 | 139 | 280 | 104 | 100 | 130 | EXT 29zx3mx30 | 90 | 110 | 160 | INT 29zx3mx30 |
| **428** | 428 | 140 | 280 | 113 | 110 | 165 | EXT 39zx3mx30 | 130 | 130 | 180 | INT 39zx3mx30 |
| **429** | 428 | 184 | 353 | 82 | 120 | 165 | EXT 39zx3mx30 | 130 | 130 | 180 | INT39zx3mx30 |
| **445** | 445 | 175 | 353 | 129 | 130 | 170 | EXT 42zx3mx30 | 130 | 140 | 205 | INT 42zx3mx30 |

| size | $E_Z$ | $G_0$ | $G_1$ | $G_2$ | $G_3$ | M Ø | N Øf7 | $N_0$ Ø | Q | $Q_0$ | weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **354** | 75 | 72 | 141 | 235 | 141 | 314 | 278 | 225 | 8.5 | 25 | 170 |
| **355** | 75 | 72 | 141 | 235 | 141 | 314 | 278 | 225 | 8.5 | 25 | 183 |
| **428** | 107 | 135 | 210 | 320 | 210 | 390 | 358 | 230 | 10 | 40 | 255 |
| **429** | 107 | 135 | 210 | 320 | 210 | 390 | 358 | 230 | 10 | 40 | 301 |
| **445** | 110 | 152 | 227 | 362 | 227 | 415 | 385 | 260 | 13 | 40 | 369 |

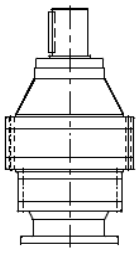
| size | G | | | | | | | | $P_m$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | motor frame | | | | | | | | motor frame | | | | | | | |
| | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 |
| **354** | | | | 344 | 344 | 344 | | | | | | 350 | 350 | 400 | | |
| **355** | | | | 437 | 437 | 437 | 467 | | | | | 350 | 350 | 400 | 450 | |
| **428** | | | | 448 | 448 | 448 | 478 | | | | | 350 | 350 | 400 | 450 | |
| **429** | | | | | | 454 | 484 | | | | | | | 400 | 450 | |
| **445** | | | | | | 494 | 524 | 524 | | | | | | 400 | 450 | 550 |

### Mounting positions and oil quantity(L)

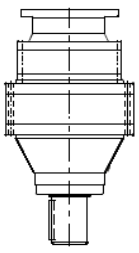
**B5**



**V1**



**V3**



| size | B5 | V1,V3 |
|---|---|---|
| **354** | 5.1 | 8.9 |
| **355** | 5.6 | 9.8 |
| **428** | 6.6 | 11.6 |
| **429** | 8.6 | 15.1 |
| **445** | 10.7 | 18.7 |

## Mounting dimensions

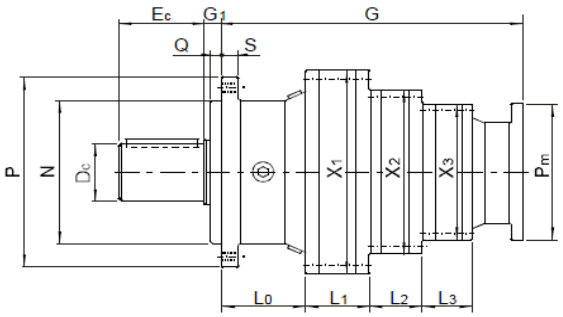
planetary gear motor

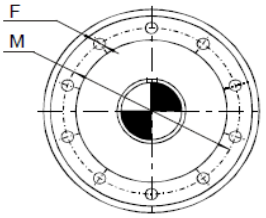
3 stage planetary gear

in line transmission with motor

size 200~353

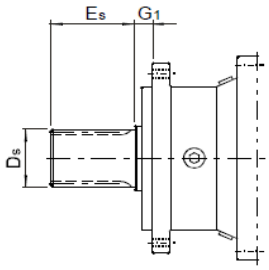
**MN 3E200~353...C1C**



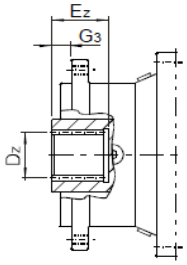




**Other shaft ends**

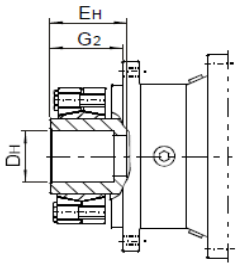
**MN 3E200~353...C1S**




**MN 3E200~353...C1Z**




**MN 3E200~353...C1H**




1) for cylindrical shaft details,see page 152;

2) for splined shaft details,see page 152;

2) for splined hollow shaft details,see page 153;

3) for hollow shaft with shrink disk details,see page 153;

4) for output flange details,see page 151;

5) can add foot on output flange,the details on page 154;

6) for motor dimensions,see page 155.

## Mounting dimensions

planetary gear motor

3 stage planetary gear

in line transmission with motor

size 200~353

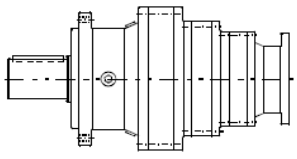
| size | $X_1$ Ø | $L_1$ | $X_2$ Ø | $L_2$ | $X_3$ Ø | $L_3$ | $D_C$ Ø | $E_C$ | $D_S$ | $E_S$ | $D_H$ Ø | $E_H$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **200** | 200 | 49 | 200 | 50 | 200 | 48 | 42 | 82 | EXT 24zx2mx30 | 55 | 50 | 72 |
| **201** | 200 | 61 | 200 | 50 | 200 | 48 | 50 | 82 | EXT 24zx2mx30 | 55 | 50 | 72 |
| **240** | 240 | 63 | 200 | 50 | 200 | 48 | 65 | 105 | EXT 28zx2mx30 | 68 | 75 | 100 |
| **241** | 240 | 78 | 200 | 62 | 200 | 48 | 65 | 105 | EXT 28zx2mx30 | 68 | 75 | 100 |
| **280** | 280 | 82 | 240 | 62 | 200 | 48 | 80 | 130 | EXT 34zx2mx30 | 90 | 85 | 145 |
| **353** | 353 | 92 | 240 | 67 | 200 | 60 | 90 | 130 | EXT 40zx2mx30 | 90 | 100 | 140 |

| size | $D_Z$ | $E_Z$ | $G_1$ | $G_2$ | $G_3$ | $L_0$ | M Ø | N Øf7 | Q | S | weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **200** | INT 24zx2mx30 | 42.5 | 6 | 50 | 6 | 62.5 | 165 | 110 | 5 | 12 | 37 |
| **201** | INT24zx2mx30 | 42.5 | 6 | 56 | 6 | 62.5 | 165 | 110 | 5 | 12 | 39 |
| **240** | INT 28zx2mx30 | 54 | 15 | 85 | 15 | 89 | 195 | 150 | 14 | 18 | 56 |
| **241** | INT 28zx2mx30 | 54 | 15 | 85 | 15 | 89 | 195 | 150 | 14 | 18 | 64 |
| **280** | INT 34zx2mx30 | 82 | 40 | 115 | 40 | 142 | 250 | 200 | 15 | 22 | 95 |
| **353** | INT 40zx2mx30 | 85 | 36 | 120 | 36 | 124 | 295 | 230 | 10 | 25 | 150 |

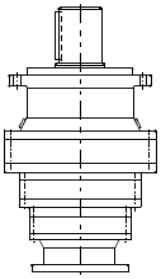
| size | G | | | | | | | $P_m$ | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 71 | 80 | 90 | 100 | 112 | 132 | 160 |
| | motor frame | | | | | | | motor frame | | | | | | |
| **200** | 246 | 256 | 256 | 274 | | | | 160 | 200 | 200 | 250 | | | |
| **201** | 258 | 268 | 268 | 286 | 286 | | | 160 | 200 | 200 | 250 | 250 | | |
| **240** | 295 | 295 | 313 | 313 | 326 | | | | 200 | 200 | 250 | 250 | 300 | |
| **241** | | 322 | 322 | 340 | 340 | 353 | | | 200 | 200 | 250 | 250 | 300 | |
| **280** | | | 379 | 397 | 397 | 410 | | | | 200 | 250 | 250 | 300 | |
| **353** | | | | 407 | 407 | 420 | 486 | | | | 250 | 250 | **300** | 350 |

## Mounting positions and oil quantity(L)

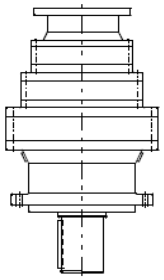
**B5**



**V1**



**V3**



| size | B5 | V1,V3 |
|---|---|---|
| **200** | 1.3 | 2.3 |
| **201** | 1.5 | 2.6 |
| **240** | 1.8 | 3.2 |
| **241** | 2.3 | 4.0 |
| **280** | 3.2 | 5.6 |
| **353** | 4.7 | 8.2 |

## Mounting dimensions

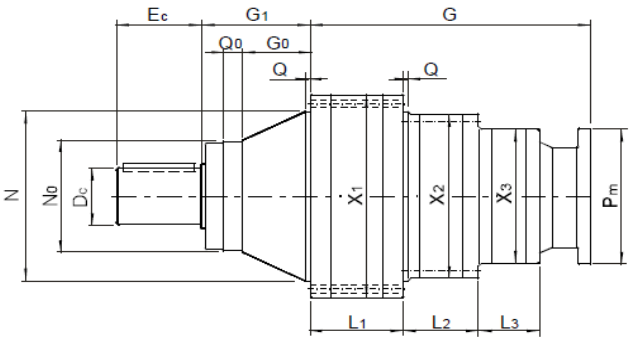
planetary gear motor

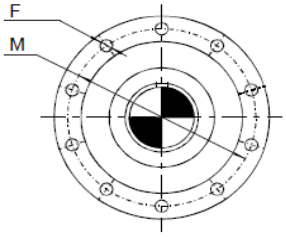
3 stage planetary gear

in line transmission with motor

size 354~543

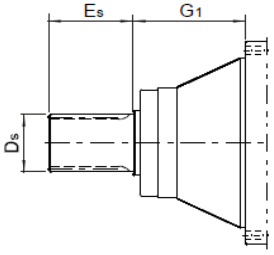
**MN 3E354~543...C2C**



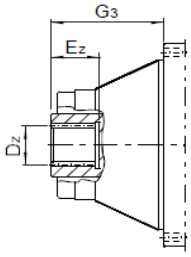




**Other shaft ends**

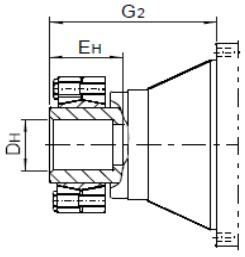
**MN 3E354~543...C2S**




**MN 3E354~543...C2Z**




**MN 3E354~543...C2H**




1) for cylindrical shaft details, see page 152;

2) for splined shaft details, see page 152;

2) for splined hollow shaft details, see page 153;

3) for hollow shaft with shrink disk details, see page 153;

4) for output flange details, see page 151;

5) can add foot on output flange, the details on page 154;

6) for motor dimensions, see page 155.