


# Section 9:

## Gearboxes - Series M

The innovative Fenner® Series M coaxial gearbox combines high load carrying capacity with high efficiency and reliability suitable for a wide variety of applications.



- Drives up to 90kW
- Dimensionally interchangeable with the market leaders
- High ratio combinations available in multi-stage units
- Oil tight gearhead enables motor removal without oil spillage
- Accepts standard IEC motors
- ATEX Certification available 

| Geared Drives: Design Data Required                          |   |
|--|---|
| Motorised (with integral motor) or non-motorised?            | <ul style="list-style-type: none"> <li>&gt; If motorised: electrical supply available any special motor features required (brake, thermistors, flameproof etc.)</li> <li>&gt; If non-motorised: type of prime mover rotational speed of prime mover power rating of prime mover is an input shaft coupling required? if so, prime mover shaft dia.</li> </ul> |
| Foot mounted or flange mounted?                              | <ul style="list-style-type: none"> <li>&gt; If flange mounted, flange diameter required</li> <li>&gt; if foot mounted, is an output shaft coupling required?</li> </ul>   |
| Type of driven machine                                       |   |
| Rotational speed of driven machine                           | > Constant or variable over what range?   |
| Power absorbed by driven machine (or required output torque) |   |
| Hours/day duty & start/stop frequency                        |   |

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## SERIES M

Flexible and Efficient

The Cost Effective Alternative

- > Dimensionally interchangeable with market leaders
- > Versatile mounting
- > Modular design backstops easily fitted
- > Oil tight gearhead enables motor removal without oil spillage
- > Accepts standard IEC motors
- > Ratios from 1.5:1 to 11,000:1

# Fenner<sup>®</sup>

THE MARK OF ENGINEERING EXCELLENCE

# Series M Gearboxes : Motorised section

## MOTORISED UNITS SELECTION PROCEDURE

### (a) Service Factor

From Table 1 select the Mechanical Service Factor (Fm) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor Fm by Factor Fs from table 2.

### (b) Motor Power

Refer to the selection tables on pages 182 to 198 and choose a motor power equal to or in excess of that required, if the motor power is not known then from the formula below determine the power requirements of the driven machine and select a motor power in excess of the calculated machine absorbed power.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

$P_2$  = Machine absorbed power (kW)

$M_2$  = Machine absorbed torque (Nm)

$n_2$  = Machine speed (Rev/Min)

### (c) Unit Selection

Refer to the selection tables on pages 182 to 198 and choose a motor power equal to or closest above that calculated in step (b). Then read down the column headed "Nominal Output" until a speed equal to or near to the required speed is found. On this line read across to the service factor column and check that the service factor exceeds the value from step (a). If the service factor is either lower or much higher than that required check the speeds at each side of the required speed to see if a more suitable unit and service factor can be found.

### (d) Overhung and Thrust Loading

If an indirect drive is used between the gearmotor and the driven machine, then the overhung load should be calculated using one of the formula on page 216. This value should be compared with the maximum allowable value given in column 5 of the selection tables. If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

### EXAMPLE 1

A Series M foot mounted gearmotor is required to drive a uniformly loaded mixer using a 4 kW electric motor at 88 rev/min. The mixer operates 8 hours a day and stops and starts every hour

A coupling is to be used to connect the gearmotor to the mixer.

### (a) Service Factor

From table 1 below the service factor for a Uniformly Loaded Mixer is 1.0. The mixer stops and starts every hour therefore the stop/start factor is 1.0

### (b) Motor Power

Series M gearmotor units fitted with 4 kW motors are described on page 191.

### (c) Unit Selection

Reading down the column headed "Nominal Output", it is found that there are two unit selections at 88 rev/min, at the first one of these read across to the maximum service factor column, it can be seen that the unit size 862A2046 has a service factor of 1.07. This exceeds the 1.00 service factor required and therefore is suitable for the application. The fourth digit (letter A) signifies a foot mounted unit, therefore the code is correct for the unit required. If another mounting style is required a different letter is used in place of the A, for details see page 218.

TABLE 1 – SERVICE FACTORS (Fm)

| Types of Driven Machine   | Operational Hours |         |         |
|---|-------------------|---------|---------|
|   | Under 3           | 3 to 10 | Over 10 |
| <b>Light Duty</b><br>Agitators (uniform density),<br>Belt conveyors (uniformly loaded).   | 1.0               | 1.1     | 1.2     |
| <b>Medium Duty</b><br>Agitators and mixers (variable density). Belt conveyors (not uniformly loaded), Kilns,<br>Laundry machinery,<br>Lineshafts, Machine tools,<br>Printing machinery, Sawmill and woodworking machinery,<br>Screens (rotary). | 1.1               | 1.2     | 1.3     |
| <b>Heavy Duty</b><br>Brick machinery, Bucket elevators, Conveyors (heavy duty), Hoists, Quarry plant,<br>Rubber machinery, Screens (vibrating), Textile machinery.  | 1.3               | 1.4     | 1.5     |

TABLE 2 - STARTING SERVICE FACTOR (Fs)

| Factor Fs | Start/stops per hour |      |      |      |      |      |
|-----------|----------------------|------|------|------|------|------|
|           | Up to 1              | 5    | 10   | 40   | 60   | >200 |
| Factor Fs | 1.00                 | 1.03 | 1.06 | 1.10 | 1.15 | 1.20 |

For ATEX certified gear units please consult your local Authorised Distributor.

### (d) Overhung and Thrust Loading

As no external loads are present, no further checks are necessary.

### EXAMPLE 2

A non-uniformly loaded conveyor absorbs 1600 Nm at the head shaft which has to rotate at 52 rev/min. A 2:1 chain-drive utilising a triplex chain drive with 19T + 38T sprockets connects the head shaft drum to a foot mounted gearmotor.

The conveyor stops and starts 4 times a day. Select a suitable size Series M gearmotor for over 16 hours a day operation.

### (a) Service Factor

From table 1 below the Service Factor is 1.50 From table 2 the starting factor is 1.00.

### (b) Motor Power

As the motor power is not known, it is necessary to calculate the power requirements of the driven machine with the following formula:

$$\begin{aligned} \text{Machined absorbed power} &= \frac{1600 \times 52}{9550} \\ &= 8.71 \text{ kW} \end{aligned}$$

The nearest motor is an 11.0kW motor and is found on page 194.

### (c) Unit Selection

Reading down the column headed "Nominal Output" it is found that 100 rev/min is nearest to the required output speed of 104 rev/min and by referring to the column headed 'Service Factor' the only gearmotor selection at

this speed has a service factor of 2.46 which is more than adequate for the application. The code for this selection is seen to be 865A1966. As the service factors for the two units at speeds above and below 100 rev/min are inadequate for the application the 865A1966 is selected.

### (d) Overhung and Thrust Loading

As the 19-T sprocket will impose a radial load on the gearmotor output shaft, it is necessary to calculate its value by using the formula below. See page 216 for further explanation.

$$\begin{aligned} \text{Overhung load} &= \frac{\text{Torque} \times 1000 \times K}{r} \\ &= \frac{800 \times 1000 \times 1.0}{77.16} \\ &= 10368 \text{ N.} \end{aligned}$$

The maximum overhung load value for 865A1966 unit selected is 21675N which exceeds the value calculated above and is therefore suitable for the application.

## Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

## 0.12 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 368                    | 3                | 19.75          | 860A0948        | 1690            |
| 273                    | 4.1              | 16.58          | 860A1048        | 1790            |
| 242                    | 4.6              | 14.85          | <b>860A0913</b> | 1810            |
| 240                    | 4.6              | 15.47          | 860A1148        | 1840            |
| 212                    | 5.3              | 14.28          | 860A1248        | 1880            |
| 179                    | 6.2              | 12.18          | <b>860A1013</b> | 1900            |
| 166                    | 6.7              | 11.82          | 860A1448        | 1900            |
| 158                    | 7                | 11.08          | <b>860A1113</b> | 1900            |
| 154                    | 7.2              | 11.11          | 860A1548        | 1900            |
| 139                    | 8                | 9.98           | <b>860A1213</b> | 1900            |
| 122                    | 9.1              | 9.20           | 860A1748        | 1900            |
| 109                    | 10               | 8.33           | <b>860A1413</b> | 1900            |
| 108                    | 10               | 8.41           | 860A1848        | 1900            |
| 101                    | 11               | 7.86           | <b>860A1513</b> | 1900            |
| 93.8                   | 12               | 7.62           | 860A1948        | 1900            |
| 84.4                   | 13               | 6.83           | 860A2048        | 1900            |
| 79.7                   | 14               | 6.45           | <b>860A1713</b> | 1900            |
| 76.5                   | 15               | 6.19           | 860A2148        | 1900            |
| 70.3                   | 16               | 5.66           | <b>860A1813</b> | 1900            |
| 69.5                   | 16               | 5.64           | 860A2248        | 1900            |
| 61.6                   | 18               | 4.95           | <b>860A1913</b> | 1900            |
| 59.4                   | 19               | 4.84           | 860A2348        | 1900            |
| 55.3                   | 20               | 4.48           | <b>860A2013</b> | 1900            |
| 50.2                   | 22               | 4.09           | <b>860A2113</b> | 1900            |
| 49.5                   | 22               | 4.05           | 860A2548        | 1900            |
| 45.6                   | 24               | 3.70           | <b>860A2213</b> | 1900            |
| 42.5                   | 26               | 3.49           | 860A2648        | 1900            |
| 38.9                   | 29               | 3.15           | <b>860A2313</b> | 1900            |
| 38.2                   | 29               | 3.10           | 860A2748        | 1900            |
| 32.5                   | 34               | 2.68           | <b>860A2513</b> | 1900            |
| 31.7                   | 35               | 2.38           | 860A2948        | 1900            |
| 27.9                   | 40               | 2.28           | <b>860A2613</b> | 1900            |
| 27.7                   | 39               | 1.83           | 860A3048        | 1900            |
| 25.8                   | 43               | 3.73           | 801A3148        | 4000            |
| 25.1                   | 44               | 2.05           | <b>860A2713</b> | 1900            |
| 24.4                   | 45               | 1.59           | 860A3148        | 1900            |
| 24.2                   | 45               | 3.57           | 801A4448        | 4000            |
| 23.7                   | 45               | 1.99           | 860A4448        | 1900            |
| 22.0                   | 49               | 3.26           | 801A4548        | 4000            |
| 21.9                   | 51               | 3.15           | <b>801A2913</b> | 4000            |
| 21.5                   | 52               | 1.75           | 860A4548        | 1900            |
| 20.8                   | 53               | 1.58           | <b>860A2913</b> | 1900            |
| 20.0                   | 55               | 2.94           | 801A4648        | 4000            |
| 20.0                   | 55               | 3.81           | 861A4648        | 4000            |
| 19.5                   | 57               | 1.59           | 860A4648        | 1900            |
| 19.3                   | 58               | 2.75           | <b>801A3013</b> | 4000            |
| 18.2                   | 61               | 1.18           | <b>860A3013</b> | 1900            |
| 17.1                   | 65               | 2.46           | 801A4748        | 4000            |
| 17.1                   | 64               | 3.26           | 861A4748        | 4000            |
| 17.0                   | 66               | 2.44           | <b>801A3113</b> | 4000            |
| 16.7                   | 67               | 1.35           | 860A4748        | 1900            |
| 16.0                   | 70               | 1.03           | <b>860A3113</b> | 1900            |
| 15.9                   | 68               | 2.36           | <b>801A4413</b> | 4000            |
| 15.5                   | 72               | 1.26           | <b>860A4413</b> | 1900            |
| 14.4                   | 75               | 2.13           | <b>801A4513</b> | 4000            |
| 14.2                   | 78               | 2.07           | 801A4948        | 4000            |
| 14.2                   | 78               | 2.70           | 861A4948        | 4000            |
| 14.1                   | 76               | 1.18           | <b>860A4513</b> | 1900            |
| 13.9                   | 78               | 1.15           | 860A4948        | 1830            |
| 13.1                   | 85               | 1.89           | <b>801A4613</b> | 4000            |
| 13.1                   | 83               | 2.52           | <b>861A4613</b> | 4000            |
| 12.8                   | 88               | 1.03           | <b>860A4613</b> | 1900            |
| 12.2                   | 88               | 1.83           | 801A5048        | 4000            |
| 12.2                   | 91               | 2.30           | 861A5048        | 4000            |
| 12.0                   | 91               | 3.73           | 802A5048        | 7200            |
| 11.9                   | 95               | 0.96           | 860A5048        | 1650            |
| 11.2                   | 97               | 1.65           | <b>801A4713</b> | 4000            |
| 11.2                   | 99               | 2.13           | <b>861A4713</b> | 4000            |
| 11.0                   | 101              | 1.59           | 801A5148        | 4000            |
| 11.0                   | 98               | 2.15           | 861A5148        | 4000            |
| 10.9                   | 95               | 0.95           | <b>860A4713</b> | 1360            |
| 10.7                   | 103              | 0.88           | 860A5148        | 1360            |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 10.6                   | 104              | 3.26           | 802A5148        | 7200            |
| 9.31                   | 120              | 1.34           | <b>801A4913</b> | 4000            |
| 9.31                   | 116              | 1.81           | <b>861A4913</b> | 4000            |
| 9.10                   | 119              | 1.35           | 801A5348        | 4000            |
| 9.10                   | 120              | 1.75           | 861A5348        | 4000            |
| 9.10                   | 118              | 2.86           | 802A5348        | 7200            |
| 9.10                   | 121              | 3.73           | 862A5348        | 7200            |
| 8.02                   | 137              | 2.46           | 802A5448        | 7200            |
| 8.02                   | 135              | 3.34           | 862A5448        | 7200            |
| 7.99                   | 136              | 1.18           | <b>801A5013</b> | 4000            |
| 7.99                   | 140              | 1.50           | <b>861A5013</b> | 4000            |
| 7.94                   | 134              | 1.19           | 801A5448        | 4000            |
| 7.94                   | 139              | 1.51           | 861A5448        | 4000            |
| 7.82                   | 139              | 2.44           | <b>802A5013</b> | 7200            |
| 7.19                   | 145              | 1.10           | <b>801A5113</b> | 4000            |
| 7.19                   | 148              | 1.42           | <b>861A5113</b> | 4000            |
| 7.05                   | 152              | 2.23           | 802A5548        | 7200            |
| 7.05                   | 153              | 2.94           | 862A5548        | 7200            |
| 6.99                   | 155              | 1.04           | 801A5548        | 4000            |
| 6.99                   | 155              | 1.35           | 861A5548        | 4000            |
| 6.94                   | 159              | 2.13           | <b>802A5113</b> | 7200            |
| 6.48                   | 168              | 3.73           | 803A5548        | 7200            |
| 5.97                   | 185              | 0.87           | <b>801A5313</b> | 3200            |
| 5.97                   | 177              | 1.18           | <b>861A5313</b> | 3500            |
| 5.97                   | 187              | 1.81           | <b>802A5313</b> | 7200            |
| 5.97                   | 185              | 2.44           | <b>862A5313</b> | 7200            |
| 5.88                   | 185              | 1.14           | 861A6048        | 3026            |
| 5.28                   | 207              | 1.02           | 861A6148        | 3026            |
| 5.26                   | 205              | 1.65           | <b>802A5413</b> | 7200            |
| 5.26                   | 205              | 2.20           | <b>862A5413</b> | 7200            |
| 5.21                   | 205              | 1.03           | <b>861A5413</b> | 3000            |
| 4.80                   | 226              | 0.93           | 861A6248        | 3026            |
| 4.63                   | 239              | 1.42           | <b>802A5513</b> | 7200            |
| 4.63                   | 239              | 1.89           | <b>862A5513</b> | 7200            |
| 4.58                   | 242              | 0.87           | <b>861A5513</b> | 2400            |
| 4.35                   | 250              | 0.85           | 861A6348        | 3026            |
| 4.25                   | 257              | 2.44           | <b>803A5513</b> | 7200            |

## 0.18 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 368                    | 4.5              | 13.17          | 860A0902        | 1681            |
| 273                    | 6.2              | 11.06          | 860A1002        | 1778            |
| 240                    | 6.9              | 10.32          | 860A1102        | 1826            |
| 238                    | 7                | 9.74           | <b>860A0905</b> | 1791            |
| 212                    | 7.9              | 9.52           | 860A1202        | 1856            |
| 176                    | 9.5              | 7.99           | <b>860A1005</b> | 1874            |
| 166                    | 10               | 7.88           | 860A1402        | 1873            |
| 155                    | 11               | 7.27           | <b>860A1105</b> | 1874            |
| 154                    | 11               | 7.41           | 860A1502        | 1872            |
| 137                    | 12               | 6.55           | <b>860A1205</b> | 1874            |
| 122                    | 14               | 6.14           | 860A1702        | 1874            |
| 108                    | 16               | 5.61           | 860A1802        | 1874            |
| 107                    | 16               | 5.46           | <b>860A1405</b> | 1874            |
| 99.0                   | 17               | 5.16           | <b>860A1505</b> | 1868            |
| 93.8                   | 18               | 5.08           | 860A1902        | 1854            |
| 84.4                   | 20               | 4.55           | 860A2002        | 1890            |
| 78.4                   | 21               | 4.23           | <b>860A1705</b> | 1822            |
| 76.5                   | 22               | 4.13           | 860A2102        | 1877            |
| 69.5                   | 24               | 3.76           | 860A2202        | 1852            |
| 69.2                   | 24               | 3.71           | <b>860A1805</b> | 1792            |
| 60.5                   | 28               | 3.25           | <b>860A1905</b> | 1783            |
| 59.4                   | 28               | 3.23           | 860A2302        | 1881            |
| 54.4                   | 31               | 2.94           | <b>860A2005</b> | 1786            |
| 49.5                   | 33               | 2.70           | 860A2502        | 1819            |
| 49.4                   | 34               | 2.68           | <b>860A2105</b> | 1750            |
| 44.9                   | 37               | 2.43           | <b>860A2205</b> | 1719            |
| 42.5                   | 39               | 2.33           | 860A2602        | 1878            |
| 38.7                   | 43               | 3.76           | 801A2702        | 4000            |
| 38.3                   | 44               | 2.07           | <b>860A2305</b> | 1712            |
| 38.2                   | 44               | 2.07           | 860A2702        | 1854            |
| 33.8                   | 49               | 3.25           | <b>801A2505</b> | 4000            |
| 33.3                   | 50               | 3.23           | 801A2902        | 4000            |
| 33.3                   | 50               | 3.97           | 861A2902        | 4000            |
| 31.9                   | 51               | 1.76           | <b>860A2505</b> | 1634            |
| 31.7                   | 53               | 1.59           | 860A2902        | 1890            |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 29.4                   | 56               | 2.86           | 801A3002        | 4000            |
| 29.4                   | 56               | 3.60           | 861A3002        | 4000            |
| 28.1                   | 59               | 2.73           | <b>801A2605</b> | 4000            |
| 28.1                   | 59               | 3.56           | <b>861A2605</b> | 4000            |
| 27.7                   | 59               | 1.22           | 860A3002        | 1849            |
| 27.4                   | 60               | 1.50           | <b>860A2605</b> | 1631            |
| 25.8                   | 64               | 2.49           | 801A3102        | 3956            |
| 25.8                   | 64               | 3.23           | 861A3102        | 4000            |
| 25.0                   | 66               | 2.43           | <b>801A2705</b> | 4000            |
| 25.0                   | 67               | 3.15           | <b>861A2705</b> | 4000            |
| 24.7                   | 67               | 1.34           | <b>860A2705</b> | 1540            |
| 24.4                   | 67               | 1.06           | 860A3102        | 1900            |
| 24.2                   | 67               | 2.38           | 801A4402        | 4000            |
| 24.2                   | 68               | 3.07           | 861A4402        | 4000            |
| 23.7                   | 68               | 1.33           | 860A4402        | 1724            |
| 22.0                   | 74               | 2.17           | 801A4502        | 4000            |
| 22.0                   | 75               | 2.81           | 861A4502        | 4000            |
| 21.5                   | 77               | 1.17           | 860A4502        | 1590            |
| 21.5                   | 78               | 2.07           | <b>801A2905</b> | 3824            |
| 21.5                   | 77               | 2.68           | <b>861A2905</b> | 4000            |
| 20.5                   | 82               | 1.04           | <b>860A2905</b> | 1496            |
| 20.0                   | 82               | 1.96           | 801A4602        | 4000            |
| 20.0                   | 82               | 2.54           | 861A4602        | 3743            |
| 19.5                   | 85               | 1.06           | 860A4602        | 1780            |
| 18.9                   | 89               | 1.81           | <b>801A3005</b> | 3706            |
| 18.9                   | 88               | 2.37           | <b>861A3005</b> | 4000            |
| 18.7                   | 88               | 3.86           | 802A4602        | 7200            |
| 17.2                   | 95               | 3.55           | 802A4702        | 7200            |
| 17.1                   | 98               | 1.64           | 801A4702        | 3913            |
| 17.1                   | 96               | 2.17           | 861A4702        | 3913            |
| 16.7                   | 100              | 0.90           | 860A4702        | 1450            |
| 16.7                   | 100              | 1.60           | <b>801A3105</b> | 3571            |
| 16.7                   | 100              | 2.07           | <b>861A3105</b> | 4000            |
| 15.7                   | 104              | 1.55           | <b>801A4405</b> | 3829            |
| 15.7                   | 104              | 2.01           | <b>861A4405</b> | 4000            |
| 15.3                   | 109              | 0.83           | <b>860A4405</b> | 730             |
| 15.3                   | 108              | 3.15           | <b>802A4405</b> | 7200            |
| 14.3                   | 114              | 2.97           | 802A4902        | 7200            |
| 14.3                   | 115              | 3.92           | 862A4902        | 7200            |
| 14.2                   | 116              | 1.38           | 801A4902        | 4000            |
| 14.2                   | 115              | 1.40           | <b>801A4505</b> | 3685            |
| 14.2                   | 116              | 1.80           | 861A4902        | 3654            |
| 14.2                   | 116              | 1.81           | <b>861A4505</b> | 4000            |
| 13.9                   | 119              | 2.84           | <b>802A4505</b> | 7200            |
| 12.9                   | 129              | 1.24           | <b>801A4605</b> | 3532            |
| 12.9                   | 127              | 1.65           | <b>861A4605</b> | 3441            |
| 12.2                   | 132              | 1.22           | 801A5002        | 3976            |
| 12.2                   | 136              | 1.54           | 861A5002        | 3976            |
| 12.1                   | 137              | 2.48           | <b>802A4605</b> | 7200            |
| 12.1                   | 137              | 3.30           | <b>862A4605</b> | 7200            |
| 12.0                   | 136              | 2.49           | 802A5002        | 7102            |
| 12.0                   | 137              | 3.28           | 862A5002        | 7200            |
| 11.1                   | 149              | 2.27           | <b>802A4705</b> | 7200            |
| 11.1                   | 148              | 3.04           | <b>862A4705</b> | 7200            |
| 11.0                   | 151              | 1.06           | 801A5102        | 4000            |
| 11.0                   | 148              | 1.09           | <b>801A4705</b> | 3243            |
| 11.0                   | 150              | 1.40           | <b>861A4705</b> | 3243            |
| 11.0                   | 146              | 1.43           | 861A5102        | 3718            |
| 10.6                   | 156              | 2.17           | 802A5102        | 7200            |
| 10.6                   | 155              | 2.91           | 862A5102        | 7200            |
| 9.23                   | 177              | 1.91           | <b>802A4905</b> | 7200            |
| 9.23                   | 178              | 2.53           | <b>862A4905</b> | 7200            |
| 9.16                   | 183              | 0.88           | <b>801A4905</b> | 3270            |
| 9.16                   | 176              | 1.19           | <b>861A4905</b> | 3039            |
| 9.10                   | 178              | 0.90           | 801A5302        | 4000            |
| 9.10                   | 180              | 1.17           | 861A5302        | 3173            |
| 9.10                   | 178              | 1.91           | 802A5302        | 7178            |
| 9.10                   | 181              | 2.49           | 862A5302        | 6660            |
| 8.55                   | 191              | 3.28           | 803A5302        | 7200            |
| 8.02                   | 206              | 1.64           | 802A5402        | 7034            |
|                        |                  |                |                 |                 |



Series M Gearboxes : Motorised selection

Table with 5 columns: Nominal Output Rev/Min, Output Torque Nm, Service Factor, Unit Selection, Overhung Load N. Lists various gear specifications.

0.25 KW MOTOR

Table with 5 columns: Nominal Output Rev/Min, Output Torque Nm, Service Factor, Unit Selection, Overhung Load N. Lists gear specifications for a 0.25 KW motor.

Table with 5 columns: Nominal Output Rev/Min, Output Torque Nm, Service Factor, Unit Selection, Overhung Load N. Lists gear specifications for a motor (likely 0.25 KW based on context).







## Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

## 0.75 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 376                    | 18               | 3.23           | 860A0918        | 1596            |
| 279                    | 25               | 2.71           | 860A1018        | 1665            |
| 247                    | 28               | 2.43           | <b>860A0923</b> | 1610            |
| 245                    | 28               | 2.53           | 860A1118        | 1694            |
| 216                    | 32               | 2.34           | 860A1218        | 1633            |
| 184                    | 38               | 3.47           | <b>801A1023</b> | 4000            |
| 183                    | 38               | 2.00           | <b>860A1023</b> | 1636            |
| 177                    | 39               | 3.47           | 801A1418        | 4000            |
| 169                    | 41               | 1.94           | 860A1418        | 1616            |
| 167                    | 42               | 3.22           | <b>801A1123</b> | 4000            |
| 167                    | 42               | 3.82           | <b>861A1123</b> | 4000            |
| 161                    | 43               | 1.82           | <b>860A1123</b> | 1630            |
| 157                    | 44               | 1.82           | 860A1518        | 1612            |
| 156                    | 45               | 3.13           | 801A1518        | 4000            |
| 156                    | 45               | 3.75           | 861A1518        | 4000            |
| 147                    | 47               | 2.92           | <b>801A1223</b> | 4000            |
| 147                    | 47               | 3.53           | <b>861A1223</b> | 4000            |
| 142                    | 49               | 1.64           | <b>860A1223</b> | 1636            |
| 127                    | 55               | 2.65           | 801A1718        | 4000            |
| 127                    | 55               | 3.27           | 861A1718        | 4000            |
| 125                    | 56               | 1.51           | 860A1718        | 1636            |
| 116                    | 60               | 2.42           | <b>801A1423</b> | 4000            |
| 116                    | 60               | 3.04           | <b>861A1423</b> | 4000            |
| 114                    | 61               | 2.44           | 801A1818        | 4000            |
| 114                    | 61               | 3.06           | 861A1818        | 4000            |
| 111                    | 62               | 1.37           | <b>860A1423</b> | 1636            |
| 110                    | 63               | 1.38           | 860A1818        | 1636            |
| 103                    | 68               | 1.29           | <b>860A1523</b> | 1565            |
| 102                    | 68               | 2.20           | <b>801A1523</b> | 4000            |
| 102                    | 68               | 2.79           | <b>861A1523</b> | 4000            |
| 101                    | 69               | 2.22           | 801A1918        | 4000            |
| 101                    | 69               | 2.81           | 861A1918        | 4000            |
| 95.9                   | 72               | 1.25           | 860A1918        | 1417            |
| 88.4                   | 79               | 2.04           | 801A2018        | 3968            |
| 88.4                   | 78               | 2.62           | 861A2018        | 3957            |
| 86.2                   | 81               | 1.12           | 860A2018        | 1800            |
| 83.0                   | 84               | 1.88           | <b>801A1723</b> | 4000            |
| 83.0                   | 84               | 2.43           | <b>861A1723</b> | 4000            |
| 81.5                   | 85               | 1.06           | <b>860A1723</b> | 1081            |
| 81.1                   | 86               | 3.95           | 802A2118        | 6430            |
| 80.2                   | 86               | 1.86           | 801A2118        | 3878            |
| 80.2                   | 86               | 2.42           | 861A2118        | 3898            |
| 78.2                   | 89               | 1.02           | 860A2118        | 1660            |
| 74.8                   | 93               | 1.73           | <b>801A1823</b> | 4000            |
| 74.8                   | 93               | 2.25           | <b>861A1823</b> | 4000            |
| 73.8                   | 94               | 3.59           | <b>802A1823</b> | 6590            |
| 71.9                   | 97               | 0.93           | <b>860A1823</b> | 770             |
| 71.0                   | 98               | 0.93           | 860A2218        | 1400            |
| 69.8                   | 100              | 1.61           | 801A2218        | 3757            |
| 69.8                   | 100              | 2.11           | 861A2218        | 3689            |
| 68.5                   | 101              | 3.34           | 802A2218        | 6750            |
| 65.9                   | 106              | 1.52           | <b>801A1923</b> | 4000            |
| 65.9                   | 106              | 1.98           | <b>861A1923</b> | 4000            |
| 64.2                   | 108              | 1.48           | 801A2318        | 4000            |
| 64.2                   | 108              | 1.94           | 861A2318        | 3568            |
| 64.1                   | 108              | 3.13           | 802A2318        | 6880            |
| 63.5                   | 110              | 3.09           | <b>802A1923</b> | 6880            |
| 62.9                   | 111              | 0.81           | <b>860A1923</b> | 678             |
| 58.0                   | 120              | 1.34           | <b>801A2023</b> | 4000            |
| 58.0                   | 120              | 1.75           | <b>861A2023</b> | 4000            |
| 56.8                   | 122              | 2.77           | <b>802A2023</b> | 7100            |
| 56.8                   | 122              | 3.68           | <b>862A2023</b> | 6381            |
| 53.5                   | 130              | 1.24           | 801A2518        | 3847            |
| 53.5                   | 129              | 1.63           | 861A2518        | 3045            |
| 53.3                   | 131              | 2.59           | <b>802A2123</b> | 7050            |
| 53.3                   | 131              | 3.45           | <b>862A2123</b> | 6708            |
| 52.7                   | 132              | 1.21           | <b>801A2123</b> | 3833            |
| 52.7                   | 132              | 1.59           | <b>861A2123</b> | 3801            |
| 51.7                   | 134              | 2.52           | 802A2518        | 7052            |
| 51.7                   | 135              | 3.35           | 862A2518        | 6723            |
| 45.8                   | 152              | 1.06           | <b>801A2223</b> | 3341            |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 45.8                   | 152              | 1.38           | <b>861A2223</b> | 3306            |
| 44.9                   | 155              | 2.19           | <b>802A2223</b> | 6996            |
| 44.9                   | 155              | 2.91           | <b>862A2223</b> | 6755            |
| 44.6                   | 154              | 1.04           | 801A2618        | 4000            |
| 44.6                   | 155              | 1.35           | 861A2618        | 3182            |
| 43.8                   | 158              | 2.14           | 802A2618        | 7124            |
| 43.8                   | 158              | 2.84           | 862A2618        | 6875            |
| 42.1                   | 164              | 0.98           | <b>801A2323</b> | 3023            |
| 42.1                   | 164              | 1.28           | <b>861A2323</b> | 2971            |
| 42.1                   | 165              | 2.05           | <b>802A2323</b> | 6915            |
| 42.1                   | 165              | 2.73           | <b>862A2323</b> | 6628            |
| 41.8                   | 166              | 3.76           | 803A2618        | 7200            |
| 40.0                   | 173              | 1.96           | 802A2718        | 7147            |
| 40.0                   | 173              | 2.61           | 862A2718        | 6769            |
| 39.6                   | 174              | 0.93           | 801A2718        | 4000            |
| 39.6                   | 175              | 1.20           | 861A2718        | 2680            |
| 36.3                   | 192              | 3.27           | <b>803A2323</b> | 7200            |
| 35.4                   | 195              | 3.21           | 803A2718        | 7200            |
| 35.1                   | 198              | 0.81           | <b>801A2523</b> | 2141            |
| 35.1                   | 198              | 1.06           | <b>861A2523</b> | 2141            |
| 34.0                   | 205              | 0.98           | 861A2918        | 3360            |
| 34.0                   | 205              | 3.06           | <b>803A2523</b> | 7200            |
| 33.9                   | 204              | 1.66           | <b>802A2523</b> | 6186            |
| 33.9                   | 205              | 2.20           | <b>862A2523</b> | 6145            |
| 32.7                   | 212              | 1.60           | 802A2918        | 6970            |
| 32.7                   | 211              | 2.01           | 862A2918        | 6865            |
| 32.4                   | 215              | 2.92           | 803A2918        | 7200            |
| 30.0                   | 230              | 0.89           | 861A3018        | 2600            |
| 29.3                   | 236              | 0.89           | <b>861A2623</b> | 1521            |
| 29.3                   | 235              | 1.44           | 802A3018        | 7178            |
| 29.3                   | 236              | 1.61           | 862A3018        | 6658            |
| 29.1                   | 237              | 2.96           | 863A3018        | 10000           |
| 28.9                   | 240              | 3.62           | <b>863A2623</b> | 9420            |
| 28.8                   | 241              | 1.41           | <b>802A2623</b> | 6429            |
| 28.8                   | 242              | 1.87           | <b>862A2623</b> | 5704            |
| 27.4                   | 254              | 2.47           | <b>803A2623</b> | 7200            |
| 26.4                   | 262              | 2.01           | 803A3018        | 7200            |
| 26.3                   | 263              | 1.29           | <b>802A2723</b> | 6093            |
| 26.3                   | 263              | 1.71           | <b>862A2723</b> | 5704            |
| 26.3                   | 263              | 3.31           | <b>863A2723</b> | 9420            |
| 26.2                   | 264              | 1.03           | 802A3118        | 7200            |
| 26.2                   | 264              | 1.03           | 862A3118        | 7200            |
| 26.2                   | 263              | 2.27           | 863A3118        | 10000           |
| 24.2                   | 283              | 1.20           | 802A4418        | 6729            |
| 24.2                   | 284              | 1.59           | 862A4418        | 6502            |
| 24.0                   | 286              | 2.64           | 863A4418        | 9458            |
| 23.7                   | 292              | 1.61           | 803A3118        | 7200            |
| 23.3                   | 299              | 2.10           | <b>803A2723</b> | 7010            |
| 22.5                   | 305              | 2.53           | 863A4518        | 9349            |
| 22.0                   | 310              | 1.09           | 802A4518        | 7200            |
| 22.0                   | 313              | 1.44           | 862A4518        | 6044            |
| 22.0                   | 314              | 2.77           | <b>863A2923</b> | 9183            |
| 21.5                   | 321              | 1.06           | <b>802A2923</b> | 5229            |
| 21.5                   | 322              | 1.37           | <b>862A2923</b> | 5192            |
| 21.2                   | 327              | 1.92           | <b>803A2923</b> | 6813            |
| 19.6                   | 350              | 1.79           | 803A4518        | 7200            |
| 19.3                   | 360              | 0.94           | <b>802A3023</b> | 5497            |
| 19.3                   | 360              | 1.06           | <b>862A3023</b> | 4778            |
| 19.1                   | 357              | 0.95           | 802A4618        | 7130            |
| 19.1                   | 358              | 1.26           | 862A4618        | 5064            |
| 19.1                   | 361              | 1.94           | <b>863A3023</b> | 9043            |
| 19.0                   | 361              | 2.26           | 863A4618        | 9454            |
| 17.8                   | 388              | 1.61           | 803A4618        | 7200            |
| 17.8                   | 385              | 2.17           | 863A4718        | 9288            |
| 17.6                   | 389              | 0.87           | 802A4718        | 6970            |
| 17.6                   | 390              | 1.16           | 862A4718        | 6390            |
| 17.3                   | 399              | 1.37           | <b>803A3023</b> | 7193            |
| 17.2                   | 400              | 1.50           | <b>863A3123</b> | 9208            |
| 16.6                   | 415              | 3.74           | <b>864A3123</b> | 20000           |
| 15.9                   | 432              | 1.05           | <b>862A4423</b> | 3829            |
| 15.7                   | 437              | 1.98           | <b>863A4423</b> | 8355            |
| 15.6                   | 446              | 1.06           | <b>803A3123</b> | 6584            |
| 15.5                   | 443              | 1.42           | 803A4718        | 7200            |
| 14.8                   | 466              | 1.87           | <b>863A4523</b> | 8042            |
| 14.7                   | 469              | 0.96           | 862A4918        | 4780            |
| 14.4                   | 473              | 0.96           | <b>862A4523</b> | 3050            |
| 14.3                   | 478              | 1.82           | 863A4918        | 8661            |
| 14.2                   | 483              | 1.30           | 803A4918        | 7200            |
| 14.1                   | 488              | 3.49           | <b>864A4523</b> | 20000           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 13.8                   | 495              | 3.44           | 864A4918        | 20000           |
| 12.8                   | 535              | 1.17           | <b>803A4523</b> | 7200            |
| 12.6                   | 547              | 0.83           | <b>862A4623</b> | 2739            |
| 12.5                   | 554              | 1.57           | <b>863A4623</b> | 7121            |
| 12.4                   | 554              | 3.08           | <b>864A4623</b> | 20000           |
| 12.2                   | 563              | 1.55           | 863A5018        | 8450            |
| 11.9                   | 578              | 2.95           | 864A5018        | 19337           |
| 11.8                   | 582              | 1.08           | 803A5018        | 7200            |
| 11.7                   | 594              | 1.06           | <b>803A4623</b> | 6400            |
| 11.7                   | 588              | 1.48           | <b>863A4723</b> | 6721            |
| 11.1                   | 614              | 1.42           | 863A5118        | 7996            |
| 11.0                   | 624              | 2.73           | <b>864A4723</b> | 20000           |
| 10.8                   | 633              | 2.69           | 864A5118        | 19051           |
| 10.2                   | 677              | 0.93           | <b>803A4723</b> | 4888            |
| 9.84                   | 690              | 0.91           | 803A5118        | 7200            |
| 9.72                   | 703              | 3.52           | 865A5218        | 29600           |
| 9.38                   | 726              | 1.20           | <b>863A4923</b> | 6637            |
| 9.30                   | 738              | 0.85           | <b>803A4923</b> | 3882            |
| 9.06                   | 756              | 2.25           | <b>864A4923</b> | 18367           |
| 9.04                   | 752              | 1.16           | 863A5318        | 6910            |
| 8.80                   | 774              | 3.19           | 865A5318        | 29600           |
| 8.79                   | 776              | 2.20           | 864A5318        | 19410           |
| 8.11                   | 837              | 1.04           | 863A5418        | 5530            |
| 8.05                   | 846              | 2.01           | 864A5418        | 18989           |
| 7.96                   | 855              | 1.02           | <b>863A5023</b> | 4794            |
| 7.94                   | 866              | 3.31           | <b>865A5023</b> | 29500           |
| 7.77                   | 882              | 1.93           | <b>864A5023</b> | 17935           |
| 7.27                   | 938              | 0.93           | <b>863A5123</b> | 4794            |
| 7.23                   | 943              | 0.93           | 863A5518        | 3899            |
| 7.19                   | 955              | 3.00           | <b>865A5123</b> | 29500           |
| 7.07                   | 966              | 1.77           | <b>864A5123</b> | 17545           |
| 6.99                   | 971              | 1.76           | 864A5518        | 18252           |
| 6.38                   | 1017             | 2.43           | <b>865A5223</b> | 29442           |
| 6.16                   | 1105             | 0.79           | 863A6018        | 4677            |
| 6.16                   | 1105             | 1.27           | 864A6018        | 18916           |
| 6.11                   | 1115             | 2.37           | 865A6018        | 25710           |
| 5.83                   | 1169             | 3.78           | 866A6118        | 41580           |
| 5.78                   | 1187             | 2.09           | <b>865A5323</b> | 29330           |
| 5.77                   | 1181             | 1.44           | <b>864A5323</b> | 17044           |
| 5.47                   | 1246             | 2.30           | 865A6118        | 24951           |
| 5.45                   | 1249             | 1.21           | 864A6118        | 17870           |
| 5.28                   | 1302             | 1.31           | <b>864A5423</b> | 16406           |
| 5.07                   | 1344             | 3.29           | 866A6218        | 41580           |
| 4.70                   | 1448             | 1.98           | 865A6218        | 24951           |
| 4.69                   | 1453             | 1.04           | 864A6218        | 17870           |
| 4.59                   | 1479             | 1.16           | <b>864A5523</b> | 15789           |
| 4.47                   | 1523             | 2.90           | 866A6318        | 41580           |
| 4.21                   | 1620             | 2.73           | <b>866A6023</b> | 41580           |
| 4.20                   | 1621             | 1.77           | 865A6318        | 24951           |
| 4.19                   | 1627             | 0.93           | 864A6318        | 17870           |
| 4.08                   | 1670             | 3.81           | <b>867A6023</b> | 64632           |
| 4.05                   | 1684             | 0.84           | <b>864A6023</b> | 18916           |
| 4.05                   | 1680             | 2.63           | 866A6418        | 41580           |
| 4.01                   | 1699             | 1.56           | <b>865A6023</b> | 25710           |
| 3.94                   | 1727             | 1.66           | 865A6418        | 24951           |
| 3.93                   | 1735             | 0.87           | 864A6418        | 17870           |
| 3.93                   | 1731             | 3.67           | 867A6418        | 64632           |
| 3.82                   | 1783             | 2.48           | <b>866A6123</b> | 41580           |
| 3.71                   | 1837             | 3.46           | <b>867A6123</b> | 64632           |
| 3.59                   | 1899             | 1.51           | <b>865A6123</b> | 24951           |
| 3.54                   | 1924             | 2.30           | 866A6518        | 41580           |
| 3.44                   | 1984             | 3.21           | 867A6518        | 64632           |
| 3.33                   | 2047             | 1.40           | 865A6518        | 24951           |
| 3.33                   | 2047             | 2.16           | <b>866A6223</b> | 4               |



# Series M Gearboxes : Motorised selection

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection | Overhung Load N |
|------------------------|------------------|----------------|----------------|-----------------|
| 2.38                   | 2869             | 3.70           | 868A6423       | 80613           |
| 2.33                   | 2931             | 2.17           | 867A6818       | 64632           |
| 2.32                   | 2934             | 1.51           | 866A6523       | 41580           |
| 2.26                   | 3013             | 0.95           | 865A6818       | 24951           |
| 2.26                   | 3022             | 2.11           | 867A6523       | 64632           |
| 2.19                   | 3121             | 0.92           | 865A6523       | 24951           |
| 2.19                   | 3109             | 3.48           | 868A6818       | 80613           |
| 2.09                   | 3260             | 1.36           | 866A6623       | 41580           |
| 2.08                   | 3286             | 3.23           | 868A6523       | 80613           |
| 2.04                   | 3344             | 1.32           | 866A6918       | 41580           |
| 2.00                   | 3407             | 1.87           | 867A6623       | 64632           |
| 1.97                   | 3467             | 0.83           | 865A6623       | 24951           |
| 1.95                   | 3496             | 1.82           | 867A6918       | 64632           |
| 1.92                   | 3552             | 0.81           | 865A6918       | 24951           |
| 1.88                   | 3623             | 2.99           | 868A6623       | 80613           |
| 1.85                   | 3686             | 1.20           | 866A6723       | 41580           |
| 1.84                   | 3716             | 2.91           | 868A6918       | 80613           |
| 1.77                   | 3852             | 1.65           | 867A6723       | 64632           |
| 1.76                   | 3868             | 2.77           | 868A7018       | 80613           |
| 1.71                   | 3996             | 1.11           | 866A7018       | 41580           |
| 1.67                   | 4097             | 2.64           | 868A6723       | 80613           |
| 1.65                   | 4143             | 1.54           | 867A7018       | 64632           |
| 1.60                   | 4274             | 1.04           | 866A6823       | 41580           |
| 1.53                   | 4468             | 1.43           | 867A6823       | 64632           |
| 1.52                   | 4485             | 2.39           | 868A7118       | 80613           |
| 1.44                   | 4750             | 2.28           | 868A6823       | 80613           |
| 1.43                   | 4770             | 0.93           | 866A7118       | 41580           |
| 1.38                   | 4943             | 1.29           | 867A7118       | 64632           |
| 1.34                   | 5092             | 0.87           | 866A6923       | 41580           |
| 1.28                   | 5326             | 1.20           | 867A6923       | 64632           |
| 1.28                   | 5350             | 2.00           | 868A7218       | 80613           |
| 1.24                   | 5496             | 0.81           | 866A7218       | 41580           |
| 1.24                   | 5501             | 1.16           | 867A7218       | 64632           |
| 1.21                   | 5666             | 1.91           | 868A6923       | 80613           |
| 1.17                   | 5856             | 1.83           | 868A7318       | 80613           |
| 1.16                   | 5897             | 1.82           | 868A7023       | 80613           |
| 1.13                   | 6032             | 1.06           | 867A7318       | 64632           |
| 1.08                   | 6320             | 1.01           | 867A7023       | 64632           |
| 1.00                   | 6837             | 1.57           | 868A7123       | 80613           |
| 0.94                   | 7247             | 1.40           | 868A7418       | 80711           |
| 0.93                   | 7376             | 0.87           | 867A7418       | 64690           |
| 0.91                   | 7536             | 0.85           | 867A7123       | 64632           |
| 0.84                   | 8160             | 1.32           | 868A7223       | 80613           |
| 0.79                   | 8702             | 1.17           | 868A7518       | 80711           |
| 0.77                   | 8925             | 1.20           | 868A7323       | 80613           |
| 0.68                   | 10013            | 1.01           | 868A7618       | 80711           |
| 0.62                   | 11126            | 0.91           | 868A7718       | 80711           |
| 0.62                   | 11059            | 0.92           | 868A7423       | 80711           |
| 0.52                   | 13098            | 0.82           | 868A8018       | 80613           |

## 1.1 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection | Overhung Load N |
|------------------------|------------------|----------------|----------------|-----------------|
| 402                    | 25               | 3.97           | 801A0924       | 3750            |
| 384                    | 26               | 2.25           | 860A0924       | 1543            |
| 287                    | 36               | 3.26           | 801A1024       | 3950            |
| 287                    | 35               | 3.81           | 861A1024       | 3920            |
| 285                    | 36               | 1.89           | 860A1024       | 1596            |
| 260                    | 39               | 3.08           | 801A1124       | 4000            |
| 260                    | 39               | 3.59           | 861A1124       | 3970            |
| 258                    | 39               | 2.92           | 801A0927       | 39              |
| 258                    | 39               | 3.40           | 861A0927       | 39              |
| 250                    | 40               | 1.77           | 860A1124       | 1613            |
| 247                    | 41               | 1.66           | 860A0927       | 41              |
| 229                    | 45               | 2.86           | 801A1224       | 3992            |
| 229                    | 44               | 3.32           | 861A1224       | 3990            |
| 221                    | 46               | 1.63           | 860A1224       | 1496            |
| 184                    | 55               | 2.37           | 801A1027       | 55              |
| 184                    | 55               | 2.77           | 861A1027       | 55              |
| 183                    | 56               | 1.36           | 860A1027       | 55              |
| 180                    | 56               | 2.42           | 801A1424       | 4000            |
| 180                    | 57               | 2.85           | 861A1424       | 4000            |
| 173                    | 59               | 1.35           | 860A1424       | 1459            |
| 167                    | 61               | 2.19           | 801A1127       | 61              |
| 167                    | 61               | 2.61           | 861A1127       | 61              |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection | Overhung Load N |
|------------------------|------------------|----------------|----------------|-----------------|
| 161                    | 63               | 1.24           | 860A1127       | 63              |
| 161                    | 63               | 1.27           | 860A1524       | 1452            |
| 159                    | 64               | 2.18           | 801A1524       | 4000            |
| 159                    | 64               | 2.61           | 861A1524       | 4000            |
| 147                    | 69               | 1.99           | 801A1227       | 69              |
| 147                    | 70               | 2.41           | 861A1227       | 69              |
| 142                    | 72               | 1.12           | 860A1227       | 72              |
| 130                    | 79               | 1.85           | 801A1724       | 4000            |
| 130                    | 79               | 2.28           | 861A1724       | 4000            |
| 127                    | 80               | 1.05           | 860A1724       | 1490            |
| 117                    | 87               | 1.70           | 801A1824       | 4000            |
| 117                    | 87               | 2.14           | 861A1824       | 4000            |
| 116                    | 88               | 1.65           | 801A1427       | 88              |
| 116                    | 88               | 2.07           | 861A1427       | 88              |
| 115                    | 89               | 3.61           | 802A1824       | 5720            |
| 112                    | 91               | 0.96           | 860A1824       | 1490            |
| 111                    | 92               | 0.93           | 860A1427       | 91              |
| 103                    | 99               | 0.88           | 860A1527       | 98              |
| 103                    | 99               | 1.55           | 801A1924       | 4000            |
| 103                    | 99               | 1.96           | 861A1924       | 4000            |
| 102                    | 100              | 1.50           | 801A1527       | 100             |
| 102                    | 100              | 1.91           | 861A1527       | 99              |
| 98.8                   | 103              | 3.19           | 802A1924       | 5940            |
| 97.9                   | 104              | 0.87           | 860A1924       | 1150            |
| 90.2                   | 113              | 1.42           | 801A2024       | 3913            |
| 90.2                   | 112              | 1.83           | 861A2024       | 3931            |
| 88.3                   | 115              | 2.94           | 802A2024       | 6130            |
| 88.3                   | 115              | 3.91           | 862A2024       | 5743            |
| 83.0                   | 124              | 1.28           | 801A1727       | 123             |
| 83.0                   | 123              | 1.66           | 861A1727       | 122             |
| 82.9                   | 123              | 2.75           | 802A2124       | 6229            |
| 82.9                   | 123              | 3.66           | 862A2124       | 5832            |
| 81.9                   | 124              | 1.30           | 801A2124       | 3767            |
| 81.9                   | 124              | 1.68           | 861A2124       | 3836            |
| 74.8                   | 136              | 1.18           | 801A1827       | 136             |
| 74.8                   | 136              | 1.54           | 861A1827       | 136             |
| 73.8                   | 138              | 2.45           | 802A1827       | 137             |
| 73.8                   | 138              | 3.09           | 862A1827       | 138             |
| 71.2                   | 143              | 1.12           | 801A2224       | 3534            |
| 71.2                   | 143              | 1.47           | 861A2224       | 3498            |
| 69.9                   | 146              | 2.33           | 802A2224       | 6512            |
| 69.9                   | 146              | 3.09           | 862A2224       | 6042            |
| 65.9                   | 155              | 1.04           | 801A1927       | 154             |
| 65.9                   | 155              | 1.35           | 861A1927       | 154             |
| 65.5                   | 155              | 1.03           | 801A2324       | 4000            |
| 65.5                   | 155              | 1.35           | 861A2324       | 3303            |
| 65.5                   | 155              | 2.18           | 802A2324       | 6624            |
| 65.5                   | 156              | 2.89           | 862A2324       | 5957            |
| 63.5                   | 161              | 2.11           | 802A1927       | 160             |
| 63.5                   | 161              | 2.80           | 862A1927       | 161             |
| 58.0                   | 176              | 0.92           | 801A2027       | 175             |
| 58.0                   | 175              | 1.20           | 861A2027       | 175             |
| 56.8                   | 179              | 1.89           | 802A2027       | 179             |
| 56.8                   | 180              | 2.51           | 862A2027       | 179             |
| 56.5                   | 181              | 3.47           | 803A2324       | 7200            |
| 54.6                   | 187              | 0.86           | 801A2524       | 3740            |
| 54.6                   | 185              | 1.13           | 861A2524       | 2459            |
| 53.3                   | 192              | 1.77           | 802A2127       | 191             |
| 53.3                   | 192              | 2.35           | 862A2127       | 191             |
| 52.9                   | 193              | 3.26           | 803A2524       | 7200            |
| 52.8                   | 193              | 1.76           | 802A2524       | 6794            |
| 52.8                   | 193              | 2.33           | 862A2524       | 6188            |
| 52.7                   | 194              | 0.83           | 801A2127       | 193             |
| 52.7                   | 194              | 1.08           | 861A2127       | 193             |
| 51.3                   | 199              | 3.00           | 803A2027       | 199             |
| 45.9                   | 223              | 2.82           | 803A2127       | 222             |
| 45.8                   | 223              | 0.94           | 861A2227       | 222             |
| 45.5                   | 223              | 0.94           | 861A2624       | 2680            |
| 45.1                   | 226              | 3.71           | 863A2227       | 8987            |
| 44.9                   | 227              | 1.49           | 802A2227       | 226             |
| 44.9                   | 227              | 1.98           | 862A2227       | 227             |
| 44.9                   | 226              | 3.72           | 863A2624       | 231             |
| 44.8                   | 227              | 1.49           | 802A2624       | 6991            |
| 44.8                   | 228              | 1.98           | 862A2624       | 6307            |
| 43.0                   | 237              | 2.64           | 803A2227       | 237             |
| 42.7                   | 239              | 2.62           | 803A2624       | 7200            |
| 42.1                   | 241              | 0.87           | 861A2327       | 241             |
| 42.1                   | 243              | 1.40           | 802A2327       | 242             |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection | Overhung Load N |
|------------------------|------------------|----------------|----------------|-----------------|
| 42.1                   | 242              | 1.86           | 862A2327       | 242             |
| 41.0                   | 248              | 3.43           | 863A2724       | 252             |
| 40.9                   | 248              | 1.37           | 802A2724       | 7055            |
| 40.9                   | 248              | 1.82           | 862A2724       | 6015            |
| 40.4                   | 252              | 0.84           | 861A2724       | 1870            |
| 39.9                   | 255              | 3.32           | 863A2327       | 8888            |
| 36.3                   | 281              | 2.23           | 803A2327       | 281             |
| 36.2                   | 281              | 2.23           | 803A2724       | 7200            |
| 34.4                   | 296              | 2.91           | 863A2527       | 8888            |
| 34.2                   | 296              | 2.92           | 863A2924       | 302             |
| 34.0                   | 300              | 2.09           | 803A2527       | 300             |
| 33.9                   | 299              | 1.13           | 802A2527       | 299             |
| 33.9                   | 300              | 1.50           | 862A2527       | 300             |
| 33.4                   | 304              | 1.12           | 802A2924       | 6568            |
| 33.4                   | 303              | 1.40           | 862A2924       | 6279            |
| 33.0                   | 308              | 2.04           | 803A2924       | 7200            |
| 30.0                   | 337              | 1.01           | 802A3024       | 7140            |
| 30.0                   | 339              | 1.12           | 862A3024       | 5712            |
| 29.7                   | 340              | 2.06           | 863A3024       | 347             |
| 28.9                   | 352              | 2.47           | 863A2627       | 8405            |
| 28.8                   | 354              | 0.96           | 802A2627       | 354             |
| 28.8                   | 354              | 1.28           | 862A2627       | 354             |
| 27.4                   | 372              | 1.69           | 803A2627       | 372             |
| 27.0                   | 376              | 1.40           | 803A3024       | 7200            |
| 26.7                   | 377              | 1.58           | 863A3124       | 385             |
| 26.3                   | 386              | 0.88           | 802A2727       | 386             |
| 26.3                   | 386              | 1.17           | 862A2727       | 386             |
| 26.3                   | 385              | 2.26           | 863A2727       | 8405            |
| 25.9                   | 391              | 3.94           | 864A3124       | 399             |
| 24.7                   | 407              | 0.84           | 802A4424       | 6400            |
| 24.7                   | 409              | 1.11           | 862A4424       | 5860            |
| 24.5                   | 411              | 1.84           | 863A4424       | 420             |
| 24.2                   | 420              | 1.12           | 803A3124       | 7200            |
| 23.9                   | 419              | 3.82           | 864A4424       | 427             |
| 23.3                   | 438              | 1.43           | 803A2727       | 438             |
| 23.0                   | 437              | 1.77           | 863A4524       | 446             |
| 22.4                   | 449              | 1.01           | 862A4524       | 4980            |
| 22.0                   | 461              | 1.89           | 863A2927       | 7755            |
| 21.9                   | 460              | 3.59           | 864A4524       | 470             |
| 21.5                   | 473              | 0.93           | 862A2927       | 473             |
| 21.2                   | 480              | 1.31           | 803A2927       | 479             |
| 20.9                   | 488              | 3.49           | 864A2927       | 20000           |
| 20.0                   | 502              | 1.25           | 803A4524       | 513             |
| 19.5                   | 514              | 0.88           | 862A4624       | 3570            |
| 19.4                   | 519              | 1.58           | 863A4624       | 529             |
| 19.3                   | 520              | 3.27           | 864A4624       | 530             |
| 19.1                   | 530              | 1.33           | 863A3027       | 7370            |
| 19.1                   | 532              | 3.20           | 864A3027       | 20000           |
| 18.2                   | 552              | 1.51           | 863A4724       | 564             |
| 18.1                   | 556              | 1.12           | 803A4624       | 568             |
| 17.3                   | 586              | 0.93           | 803A3027       | 585             |
| 17.2                   | 587              | 1.02           | 863A3127       | 7823            |
| 17.1                   | 587              | 2.90           | 864A4724       | 598             |
| 16.6                   | 608              | 2.55           | 864A3127       | 18720           |
| 15.8                   | 636              | 0.99           | 803A4724       | 649             |
| 15.7                   | 641              | 1.35           | 863A4427       | 6840            |
| 15.4                   | 656              | 2.60           | 864A4427       | 20000           |
| 15.4                   | 656              | 4.03           | 865A4824       | 669             |
| 15.2                   | 670              | 3.69           | 865A3227       | 29600           |
| 14.8                   | 683              | 1.28           | 863A4527       | 6240            |
| 14.6                   | 687              | 1.27           | 863A4924       | 701             |
| 14.5                   | 693              | 0.91           | 803A4924       | 708             |
| 14.1                   | 716              | 2.38           | 864A4527       | 18126           |
| 14.1                   | 711              | 2.40           | 864A4924       | 726             |
| 13.9                   | 724              | 3.65           | 865A4924       | 739             |
| 13.5                   | 753              | 3.22           | 865A3327       | 29600           |
| 12.5                   | 812              | 1.07           | 863A4627       | 4470            |
| 12.4                   | 808              | 1.08           | 863A5024       | 825             |
| 12.4                   | 812              | 2.10           | 864A4627       | 17846           |
| 12.4                   | 814              | 3.52           | 865A5024       | 831             |
| 12.1                   | 830              | 2.05           | 864A5024       | 844             |
| 11.7                   | 862              | 1.01           | 863A4727       | 3701            |
| 11.4                   | 882              | 0.99           | 863A5124       | 900             |
| 11.3                   | 899              | 3.18           | 865A4727       | 29500           |
| 11.2                   | 900              | 3.18           | 865A5124</     |                 |

# Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 9.38                   | 1066             | 0.82           | <b>863A4927</b> | 3539            |
| 9.20                   | 1087             | 3.84           | 866A5324        | 1109            |
| 9.06                   | 1109             | 1.54           | <b>864A4927</b> | 15510           |
| 8.99                   | 1112             | 2.23           | 865A5324        | 1135            |
| 8.98                   | 1114             | 1.53           | 864A5324        | 1138            |
| 8.93                   | 1129             | 2.34           | <b>865A4927</b> | 29300           |
| 8.22                   | 1215             | 1.40           | 864A5424        | 1244            |
| 7.94                   | 1270             | 2.26           | <b>865A5027</b> | 29282           |
| 7.77                   | 1294             | 1.32           | <b>864A5027</b> | 14323           |
| 7.19                   | 1401             | 2.05           | <b>865A5127</b> | 29258           |
| 7.14                   | 1395             | 1.22           | 864A5524        | 1424            |
| 7.12                   | 1410             | 3.13           | <b>866A5127</b> | 49100           |
| 7.07                   | 1417             | 1.21           | <b>864A5127</b> | 13333           |
| 6.81                   | 1474             | 2.83           | <b>866A5227</b> | 49100           |
| 6.54                   | 1526             | 2.89           | 866A6024        | 1536            |
| 6.38                   | 1492             | 1.66           | <b>865A5227</b> | 29166           |
| 6.30                   | 1587             | 0.89           | 864A6024        | 1588            |
| 6.24                   | 1601             | 1.65           | 865A6024        | 1621            |
| 5.95                   | 1679             | 2.63           | 866A6124        | 1689            |
| 5.91                   | 1694             | 2.47           | <b>866A5327</b> | 48700           |
| 5.78                   | 1741             | 1.42           | <b>865A5327</b> | 29033           |
| 5.77                   | 1733             | 0.99           | <b>864A5327</b> | 11871           |
| 5.77                   | 1730             | 3.67           | 867A6124        | 1737            |
| 5.58                   | 1789             | 1.60           | 865A6124        | 1808            |
| 5.57                   | 1794             | 0.84           | 864A6124        | 1795            |
| 5.28                   | 1910             | 0.89           | <b>864A5427</b> | 10117           |
| 5.18                   | 1930             | 2.29           | 866A6224        | 1940            |
| 5.02                   | 1988             | 3.20           | 867A6224        | 1995            |
| 4.80                   | 2080             | 1.38           | 865A6224        | 2103            |
| 4.57                   | 2188             | 2.02           | 866A6324        | 2198            |
| 4.43                   | 2255             | 2.82           | 867A6324        | 2260            |
| 4.29                   | 2328             | 1.23           | 865A6324        | 2349            |
| 4.21                   | 2376             | 1.86           | <b>866A6027</b> | 41580           |
| 4.14                   | 2413             | 1.83           | 866A6424        | 2426            |
| 4.08                   | 2449             | 2.60           | <b>867A6027</b> | 64632           |
| 4.03                   | 2480             | 1.16           | 865A6424        | 2506            |
| 4.02                   | 2486             | 2.56           | 867A6424        | 2494            |
| 4.01                   | 2492             | 1.06           | <b>865A6027</b> | 25710           |
| 3.82                   | 2614             | 1.69           | <b>866A6127</b> | 41580           |
| 3.71                   | 2694             | 2.36           | <b>867A6127</b> | 64632           |
| 3.70                   | 2703             | 3.93           | 868A6424        | 2713            |
| 3.62                   | 2763             | 1.60           | 866A6524        | 2776            |
| 3.59                   | 2785             | 1.03           | <b>865A6127</b> | 24951           |
| 3.51                   | 2849             | 2.23           | 867A6524        | 2854            |
| 3.41                   | 2929             | 3.62           | <b>868A6127</b> | 80613           |
| 3.40                   | 2940             | 0.98           | 865A6524        | 2968            |
| 3.33                   | 3003             | 1.47           | <b>866A6227</b> | 41580           |
| 3.26                   | 3071             | 1.44           | 866A6624        | 3081            |
| 3.23                   | 3095             | 2.06           | <b>867A6227</b> | 64632           |
| 3.23                   | 3096             | 3.43           | 868A6524        | 3105            |
| 3.11                   | 3210             | 1.98           | 867A6624        | 3216            |
| 3.09                   | 3239             | 0.89           | <b>865A6227</b> | 24951           |
| 3.06                   | 3265             | 0.88           | 865A6624        | 3293            |
| 2.97                   | 3365             | 3.16           | <b>868A6227</b> | 80613           |
| 2.94                   | 3405             | 1.30           | <b>866A6327</b> | 41580           |
| 2.93                   | 3413             | 3.17           | 868A6624        | 3420            |
| 2.88                   | 3471             | 1.28           | 866A6724        | 3481            |
| 2.87                   | 3490             | 0.82           | 865A6724        | 3514            |
| 2.85                   | 3510             | 1.81           | <b>867A6327</b> | 64632           |
| 2.75                   | 3631             | 1.75           | 867A6724        | 3633            |
| 2.66                   | 3757             | 1.18           | <b>866A6427</b> | 41580           |
| 2.62                   | 3814             | 2.78           | <b>868A6327</b> | 80613           |
| 2.59                   | 3859             | 2.80           | 868A6724        | 3864            |
| 2.58                   | 3871             | 1.65           | <b>867A6427</b> | 64632           |
| 2.48                   | 4026             | 1.10           | 866A6824        | 4033            |
| 2.38                   | 4209             | 1.51           | 867A6824        | 4209            |
| 2.38                   | 4208             | 2.52           | <b>868A6427</b> | 80613           |
| 2.32                   | 4303             | 1.03           | <b>866A6527</b> | 41580           |
| 2.26                   | 4433             | 1.44           | <b>867A6527</b> | 64632           |
| 2.24                   | 4464             | 2.42           | 868A6824        | 4475            |
| 2.09                   | 4782             | 0.93           | <b>866A6627</b> | 41580           |
| 2.08                   | 4802             | 0.92           | 866A6924        | 4804            |
| 2.08                   | 4819             | 2.20           | <b>868A6527</b> | 80613           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 2.00                   | 4997             | 1.28           | <b>867A6627</b> | 64632           |
| 1.99                   | 5020             | 1.27           | 867A6924        | 5013            |
| 1.88                   | 5336             | 2.03           | 868A6924        | 5330            |
| 1.88                   | 5314             | 2.04           | <b>868A6627</b> | 80613           |
| 1.85                   | 5406             | 0.82           | <b>866A6727</b> | 41580           |
| 1.80                   | 5555             | 1.93           | 868A7024        | 5534            |
| 1.77                   | 5650             | 1.13           | <b>867A6727</b> | 64632           |
| 1.68                   | 5950             | 1.07           | 867A7024        | 5911            |
| 1.67                   | 6009             | 1.80           | <b>868A6727</b> | 80613           |
| 1.55                   | 6440             | 1.67           | 868A7124        | 6410            |
| 1.53                   | 6554             | 0.97           | <b>867A6827</b> | 64632           |
| 1.44                   | 6967             | 1.56           | <b>868A6827</b> | 80613           |
| 1.41                   | 7099             | 0.90           | 867A7124        | 7043            |
| 1.30                   | 7684             | 1.40           | 868A7224        | 7636            |
| 1.28                   | 7811             | 0.82           | <b>867A6927</b> | 64632           |
| 1.27                   | 7901             | 0.81           | 867A7224        | 7829            |
| 1.21                   | 8309             | 1.30           | <b>868A6927</b> | 80613           |
| 1.19                   | 8410             | 1.28           | 868A7324        | 8356            |
| 1.16                   | 8649             | 1.24           | <b>868A7027</b> | 80613           |
| 1.00                   | 10028            | 1.07           | <b>868A7127</b> | 80613           |
| 0.96                   | 10408            | 0.98           | 868A7424        | 10314           |
| 0.84                   | 11968            | 0.90           | <b>868A7227</b> | 80613           |
| 0.80                   | 12497            | 0.81           | 868A7524        | 12351           |
| 0.77                   | 13090            | 0.82           | <b>868A7327</b> | 80613           |

## 1.5 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 402                    | 34               | 2.91           | 801A0928        | 3728            |
| 402                    | 34               | 3.43           | 861A0928        | 3690            |
| 384                    | 36               | 1.65           | 860A0928        | 1484            |
| 287                    | 49               | 2.40           | 801A1028        | 3917            |
| 287                    | 48               | 2.80           | 861A1028        | 3898            |
| 285                    | 49               | 1.39           | 860A1028        | 1517            |
| 262                    | 53               | 2.18           | <b>801A0937</b> | 3100            |
| 262                    | 53               | 2.54           | <b>861A0937</b> | 2300            |
| 260                    | 54               | 2.26           | 801A1128        | 3967            |
| 260                    | 53               | 2.63           | 861A1128        | 3948            |
| 251                    | 55               | 1.24           | <b>860A0937</b> | 980             |
| 250                    | 55               | 1.30           | 860A1128        | 1521            |
| 229                    | 61               | 2.10           | 801A1228        | 3984            |
| 229                    | 60               | 2.43           | 861A1228        | 3982            |
| 221                    | 63               | 1.20           | 860A1228        | 1340            |
| 187                    | 74               | 1.77           | <b>801A1037</b> | 3100            |
| 187                    | 74               | 2.07           | <b>861A1037</b> | 2300            |
| 187                    | 75               | 3.65           | <b>802A1037</b> | 5180            |
| 186                    | 75               | 1.02           | <b>860A1037</b> | 980             |
| 180                    | 77               | 1.77           | 801A1428        | 4000            |
| 180                    | 77               | 2.09           | 861A1428        | 4000            |
| 173                    | 80               | 0.99           | 860A1428        | 1280            |
| 170                    | 82               | 1.64           | <b>801A1137</b> | 3100            |
| 170                    | 82               | 1.94           | <b>861A1137</b> | 2300            |
| 167                    | 84               | 3.42           | <b>802A1137</b> | 5270            |
| 164                    | 85               | 0.93           | <b>860A1137</b> | 980             |
| 161                    | 86               | 0.93           | 860A1528        | 1270            |
| 159                    | 88               | 1.60           | 801A1528        | 4000            |
| 159                    | 88               | 1.92           | 861A1528        | 4000            |
| 150                    | 93               | 1.49           | <b>801A1237</b> | 3100            |
| 150                    | 93               | 1.79           | <b>861A1237</b> | 2300            |
| 149                    | 94               | 3.13           | <b>802A1237</b> | 5360            |
| 144                    | 96               | 0.83           | <b>860A1237</b> | 980             |
| 130                    | 107              | 1.36           | 801A1728        | 4000            |
| 130                    | 107              | 1.67           | 861A1728        | 4000            |
| 118                    | 118              | 1.23           | <b>801A1437</b> | 3100            |
| 118                    | 118              | 1.55           | <b>861A1437</b> | 2300            |
| 117                    | 119              | 1.25           | 801A1828        | 4000            |
| 117                    | 119              | 1.57           | 861A1828        | 4000            |
| 117                    | 119              | 2.61           | <b>802A1437</b> | 5530            |
| 117                    | 119              | 3.77           | <b>862A1437</b> | 5060            |
| 115                    | 121              | 2.65           | 802A1828        | 5611            |
| 115                    | 121              | 3.52           | 862A1828        | 5158            |
| 104                    | 134              | 1.12           | <b>801A1537</b> | 3100            |
| 104                    | 134              | 1.42           | <b>861A1537</b> | 2300            |
| 103                    | 135              | 1.14           | 801A1928        | 4000            |
| 103                    | 136              | 1.44           | 861A1928        | 4000            |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 103                    | 135              | 2.36           | <b>802A1537</b> | 5670            |
| 103                    | 135              | 3.33           | <b>862A1537</b> | 5460            |
| 98.8                   | 141              | 2.34           | 802A1928        | 5814            |
| 98.8                   | 141              | 3.20           | 862A1928        | 5238            |
| 90.2                   | 154              | 1.04           | 801A2028        | 3850            |
| 90.2                   | 153              | 1.34           | 861A2028        | 3901            |
| 88.3                   | 157              | 2.16           | 802A2028        | 5915            |
| 88.3                   | 157              | 2.87           | 862A2028        | 5630            |
| 86.4                   | 161              | 2.07           | <b>802A1737</b> | 5920            |
| 86.4                   | 161              | 2.79           | <b>862A1737</b> | 5700            |
| 84.3                   | 166              | 0.96           | <b>801A1737</b> | 2600            |
| 84.3                   | 165              | 1.24           | <b>861A1737</b> | 2300            |
| 82.9                   | 168              | 2.02           | 802A2128        | 6000            |
| 82.9                   | 168              | 2.69           | 862A2128        | 5710            |
| 81.9                   | 169              | 0.95           | 801A2128        | 3640            |
| 81.9                   | 169              | 1.24           | 861A2128        | 3764            |
| 79.8                   | 174              | 3.42           | 803A2028        | 7200            |
| 76.0                   | 183              | 0.88           | <b>801A1837</b> | 2300            |
| 76.0                   | 183              | 1.15           | <b>861A1837</b> | 2300            |
| 75.0                   | 186              | 1.83           | <b>802A1837</b> | 6119            |
| 75.0                   | 186              | 2.30           | <b>862A1837</b> | 5732            |
| 71.4                   | 195              | 3.22           | 803A2128        | 7200            |
| 71.2                   | 195              | 0.83           | 801A2228        | 3280            |
| 71.2                   | 195              | 1.08           | 861A2228        | 3280            |
| 69.9                   | 199              | 1.71           | 802A2228        | 6240            |
| 69.9                   | 199              | 2.27           | 862A2228        | 5869            |
| 69.8                   | 200              | 3.13           | <b>803A1837</b> | 7200            |
| 66.9                   | 208              | 1.01           | <b>861A1937</b> | 2300            |
| 66.9                   | 208              | 3.02           | 803A2228        | 7200            |
| 65.6                   | 212              | 3.82           | <b>863A1937</b> | 8921            |
| 65.5                   | 212              | 0.99           | 861A2328        | 3000            |
| 65.5                   | 212              | 1.60           | 802A2328        | 6333            |
| 65.5                   | 212              | 2.12           | 862A2328        | 5651            |
| 64.5                   | 216              | 1.57           | <b>802A1937</b> | 6331            |
| 64.5                   | 216              | 2.09           | <b>862A1937</b> | 5904            |
| 62.0                   | 223              | 3.65           | 863A2328        | 9013            |
| 60.6                   | 230              | 2.30           | <b>803A1937</b> | 7200            |
| 58.9                   | 235              | 0.89           | <b>861A2037</b> | 2050            |
| 57.8                   | 240              | 3.41           | <b>863A2037</b> | 8727            |
| 57.7                   | 241              | 1.41           | <b>802A2037</b> | 6489            |
| 57.7                   | 241              | 1.87           | <b>862A2037</b> | 6028            |
| 56.5                   | 246              | 2.55           | 803A2328        | 7200            |
| 54.6                   | 253              | 0.83           | 861A2528        | 1789            |
| 54.1                   | 258              | 1.32           | <b>802A2137</b> | 6491            |
| 54.1                   | 257              | 1.75           | <b>862A2137</b> | 6212            |
| 53.5                   | 260              | 0.81           | <b>861A2137</b> | 1900            |
| 53.5                   | 259              | 3.19           | 863A2528        | 8800            |
| 52.9                   | 263              | 2.39           | 803A2528        | 7200            |
| 52.8                   | 263              | 1.29           | 802A2528        | 6499            |
| 52.8                   | 263              | 1.71           | 862A2528        | 5575            |
| 52.5                   | 265              | 3.12           | <b>863A2137</b> | 8543            |
| 52.1                   | 267              | 2.24           | <b>803A2037</b> | 7200            |
| 46.6                   | 299              | 2.10           | <b>803A2137</b> | 7200            |
| 45.8                   | 303              | 2.77           | <b>863A2237</b> | 8251            |
| 45.7                   | 305              | 1.11           | <b>802A2237</b> | 6232            |
| 45.7                   | 305              | 1.48           | <b>862A2237</b> | 5787            |
| 44.9                   | 309              | 2.73           | 863A2628        | 8966            |
| 44.8                   | 309              | 1.10           | 802A2628        | 6840            |
| 44.8                   | 310              | 1.45           | 862A2628        | 5658            |
| 43.7                   | 319              | 1.97           | <b>803A2237</b> | 7200            |
| 42.8                   | 326              | 1.04           | <b>802A2337</b> | 5846            |
| 42.8                   | 325              | 1.39           | <b>862A2337</b> | 5501            |
| 42.7                   | 326              | 1.92           | 803A2628        | 7200            |
| 41.0                   | 338              | 2.51           | 863A2728        | 8670            |
| 40.9                   | 338              | 1.00           | 802A2728        | 6950            |
| 40.9                   | 338              | 1.34           |                 |                 |

## Series M Gearboxes : Motorised selection

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 29.7                   | 464              | 1.51           | 863A3028        | 8708            |
| 29.3                   | 473              | 1.84           | <b>863A2637</b> | 7246            |
| 29.2                   | 475              | 0.95           | <b>862A2637</b> | 2754            |
| 28.6                   | 486              | 3.50           | <b>864A2637</b> | 20000           |
| 27.9                   | 499              | 1.26           | <b>803A2637</b> | 7200            |
| 27.0                   | 513              | 1.03           | 803A3028        | 7200            |
| 26.8                   | 517              | 1.68           | <b>863A2737</b> | 7246            |
| 26.7                   | 518              | 0.87           | <b>862A2737</b> | 2754            |
| 26.7                   | 514              | 1.16           | 863A3128        | 10000           |
| 26.1                   | 529              | 3.79           | 865A3128        | 29700           |
| 26.0                   | 534              | 3.19           | <b>864A2737</b> | 20000           |
| 25.9                   | 533              | 2.89           | 864A3128        | 19737           |
| 24.5                   | 561              | 1.35           | 863A4428        | 7426            |
| 24.2                   | 572              | 0.83           | 803A3128        | 7200            |
| 23.9                   | 571              | 2.81           | 864A4428        | 19600           |
| 23.6                   | 588              | 1.07           | <b>803A2737</b> | 6301            |
| 23.0                   | 596              | 1.30           | 863A4528        | 6908            |
| 22.3                   | 618              | 1.41           | <b>863A2937</b> | 6122            |
| 21.9                   | 628              | 2.63           | 864A4528        | 19310           |
| 21.6                   | 644              | 0.98           | <b>803A2937</b> | 5363            |
| 21.2                   | 654              | 2.60           | <b>864A2937</b> | 18642           |
| 21.0                   | 659              | 3.75           | 865A3328        | 29600           |
| 20.0                   | 685              | 0.92           | 803A4528        | 7200            |
| 19.4                   | 711              | 0.99           | <b>863A3037</b> | 5457            |
| 19.4                   | 707              | 1.16           | 863A4628        | 7410            |
| 19.4                   | 713              | 2.39           | <b>864A3037</b> | 18360           |
| 19.3                   | 709              | 2.40           | 864A4628        | 18882           |
| 18.2                   | 753              | 1.11           | 863A4728        | 6620            |
| 17.5                   | 787              | 3.64           | 865A4728        | 29600           |
| 17.1                   | 800              | 2.13           | 864A4728        | 19178           |
| 17.1                   | 810              | 2.40           | <b>865A3137</b> | 29600           |
| 16.9                   | 816              | 1.90           | <b>864A3137</b> | 17258           |
| 16.0                   | 860              | 1.01           | <b>863A4437</b> | 5110            |
| 15.8                   | 875              | 3.02           | <b>865A4437</b> | 29500           |
| 15.6                   | 880              | 1.94           | <b>864A4437</b> | 18038           |
| 15.4                   | 899              | 2.75           | <b>865A3237</b> | 29472           |
| 15.4                   | 894              | 2.96           | 865A4828        | 29462           |
| 15.0                   | 917              | 0.95           | <b>863A4537</b> | 4180            |
| 14.6                   | 936              | 0.93           | 863A4928        | 3640            |
| 14.3                   | 961              | 1.77           | <b>864A4537</b> | 15984           |
| 14.2                   | 972              | 2.72           | <b>865A4537</b> | 29400           |
| 14.1                   | 969              | 1.76           | 864A4928        | 17066           |
| 13.9                   | 987              | 2.68           | 865A4928        | 29434           |
| 13.7                   | 1010             | 2.40           | <b>865A3337</b> | 29372           |
| 13.1                   | 1045             | 3.61           | 866A4928        | 49600           |
| 12.7                   | 1087             | 2.64           | <b>865A4637</b> | 29400           |
| 12.6                   | 1090             | 1.57           | <b>864A4637</b> | 15384           |
| 12.4                   | 1110             | 2.58           | 865A5028        | 29348           |
| 12.1                   | 1131             | 1.51           | 864A5028        | 16851           |
| 11.4                   | 1207             | 2.37           | <b>865A4737</b> | 29318           |
| 11.2                   | 1228             | 1.39           | <b>864A4737</b> | 14726           |
| 11.2                   | 1227             | 2.34           | 865A5128        | 29320           |
| 11.1                   | 1234             | 3.58           | 866A5128        | 49300           |
| 11.0                   | 1240             | 1.38           | 864A5128        | 15494           |
| 10.6                   | 1285             | 3.24           | 866A5228        | 49300           |
| 10.1                   | 1371             | 1.93           | <b>865A4837</b> | 29181           |
| 9.92                   | 1377             | 1.80           | 865A5228        | 29200           |
| 9.85                   | 1392             | 2.71           | <b>866A4837</b> | 49000           |
| 9.20                   | 1488             | 1.15           | <b>864A4937</b> | 12244           |
| 9.20                   | 1482             | 2.82           | 866A5328        | 48965           |
| 9.07                   | 1515             | 1.75           | <b>865A4937</b> | 29081           |
| 8.99                   | 1517             | 1.63           | 865A5328        | 29166           |
| 8.98                   | 1519             | 1.12           | 864A5328        | 17200           |
| 8.55                   | 1604             | 2.35           | <b>866A4937</b> | 48700           |
| 8.34                   | 1644             | 2.69           | <b>866A5037</b> | 48700           |
| 8.22                   | 1657             | 1.03           | 864A5428        | 15200           |
| 8.07                   | 1705             | 1.68           | <b>865A5037</b> | 29034           |
| 7.89                   | 1736             | 0.98           | <b>864A5037</b> | 10194           |
| 7.43                   | 1829             | 3.48           | <b>867A5137</b> | 66800           |
| 7.31                   | 1880             | 1.53           | <b>865A5137</b> | 28982           |
| 7.24                   | 1892             | 2.34           | <b>866A5137</b> | 48200           |
| 7.18                   | 1901             | 0.90           | <b>864A5137</b> | 8484            |
| 7.14                   | 1902             | 0.90           | 864A5528        | 11700           |
| 6.92                   | 1978             | 2.11           | <b>866A5237</b> | 48136           |
| 6.76                   | 2003             | 3.23           | <b>867A5237</b> | 66700           |
| 6.54                   | 2081             | 2.12           | 866A6028        | 41580           |
| 6.48                   | 2002             | 1.24           | <b>865A5237</b> | 28851           |
| 6.35                   | 2145             | 2.97           | 867A6028        | 64632           |
| 6.24                   | 2183             | 1.21           | 865A6028        | 25710           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 6.07                   | 2229             | 2.90           | <b>867A5337</b> | 66700           |
| 6.01                   | 2273             | 1.84           | <b>866A5337</b> | 47734           |
| 5.95                   | 2289             | 1.93           | 866A6128        | 41580           |
| 5.87                   | 2336             | 1.06           | <b>865A5337</b> | 28693           |
| 5.77                   | 2360             | 2.70           | 867A6128        | 64632           |
| 5.58                   | 2440             | 1.18           | 865A6128        | 24951           |
| 5.43                   | 2507             | 2.54           | <b>867A5437</b> | 66600           |
| 5.18                   | 2631             | 1.68           | 866A6228        | 41580           |
| 5.10                   | 2672             | 2.38           | <b>867A5537</b> | 66500           |
| 5.02                   | 2711             | 2.35           | 867A6228        | 64632           |
| 4.80                   | 2836             | 1.01           | 865A6228        | 24951           |
| 4.62                   | 2947             | 3.60           | 868A6228        | 80613           |
| 4.57                   | 2983             | 1.48           | 866A6328        | 41580           |
| 4.44                   | 3064             | 2.11           | <b>867A5637</b> | 66400           |
| 4.44                   | 3052             | 3.31           | <b>868A5637</b> | 80900           |
| 4.43                   | 3074             | 2.07           | 867A6328        | 64632           |
| 4.29                   | 3174             | 0.91           | 865A6328        | 24951           |
| 4.27                   | 3189             | 1.39           | <b>866A6037</b> | 41580           |
| 4.15                   | 3286             | 1.94           | <b>867A6037</b> | 64632           |
| 4.14                   | 3291             | 1.35           | 866A6428        | 41580           |
| 4.08                   | 3342             | 3.18           | 868A6328        | 80613           |
| 4.03                   | 3381             | 0.85           | 865A6428        | 24951           |
| 4.02                   | 3391             | 1.88           | 867A6428        | 64632           |
| 3.89                   | 3508             | 1.26           | <b>866A6137</b> | 41580           |
| 3.81                   | 3571             | 2.97           | <b>868A6037</b> | 80613           |
| 3.77                   | 3615             | 1.76           | <b>867A6137</b> | 64632           |
| 3.70                   | 3686             | 2.88           | 868A6428        | 80613           |
| 3.62                   | 3768             | 1.18           | 866A6528        | 41580           |
| 3.51                   | 3884             | 1.64           | 867A6528        | 64632           |
| 3.47                   | 3930             | 2.70           | <b>868A6137</b> | 80613           |
| 3.38                   | 4029             | 1.10           | <b>866A6237</b> | 41580           |
| 3.28                   | 4153             | 1.53           | <b>867A6237</b> | 64632           |
| 3.26                   | 4187             | 1.06           | 866A6628        | 41580           |
| 3.23                   | 4222             | 2.52           | 868A6528        | 80613           |
| 3.11                   | 4377             | 1.46           | 867A6628        | 64632           |
| 3.02                   | 4515             | 2.35           | <b>868A6237</b> | 80613           |
| 2.98                   | 4569             | 0.97           | <b>866A6337</b> | 41580           |
| 2.93                   | 4655             | 2.33           | 868A6628        | 80613           |
| 2.89                   | 4710             | 1.35           | <b>867A6337</b> | 64632           |
| 2.88                   | 4733             | 0.94           | 866A6728        | 41580           |
| 2.75                   | 4951             | 1.29           | 867A6728        | 64632           |
| 2.70                   | 5041             | 0.88           | <b>866A6437</b> | 41580           |
| 2.66                   | 5118             | 2.08           | <b>868A6337</b> | 80613           |
| 2.62                   | 5194             | 1.23           | <b>867A6437</b> | 64632           |
| 2.59                   | 5262             | 2.06           | 868A6728        | 80613           |
| 2.48                   | 5490             | 0.81           | 866A6828        | 41580           |
| 2.41                   | 5646             | 1.88           | <b>868A6437</b> | 80613           |
| 2.38                   | 5739             | 1.11           | 867A6828        | 64632           |
| 2.29                   | 5948             | 1.07           | <b>867A6537</b> | 64632           |
| 2.24                   | 6088             | 1.78           | 868A6828        | 80613           |
| 2.11                   | 6467             | 1.64           | <b>868A6537</b> | 80613           |
| 2.03                   | 6705             | 0.95           | <b>867A6637</b> | 64632           |
| 1.99                   | 6845             | 0.93           | 867A6928        | 64632           |
| 1.91                   | 7131             | 1.52           | <b>868A6637</b> | 80613           |
| 1.88                   | 7277             | 1.49           | 868A6928        | 80613           |
| 1.80                   | 7581             | 0.84           | <b>867A6737</b> | 64632           |
| 1.80                   | 7575             | 1.42           | 868A7028        | 80613           |
| 1.69                   | 8063             | 1.34           | <b>868A6737</b> | 80613           |
| 1.55                   | 8782             | 1.22           | 868A7128        | 80613           |
| 1.46                   | 9348             | 1.16           | <b>868A6837</b> | 80613           |
| 1.30                   | 10478            | 1.03           | 868A7228        | 80613           |
| 1.23                   | 11150            | 0.97           | <b>868A6937</b> | 80613           |
| 1.19                   | 11468            | 0.94           | 868A7328        | 80613           |
| 1.18                   | 11606            | 0.93           | <b>868A7037</b> | 80613           |

## 2.2 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 397                    | 51               | 3.97           | 802A0936        | 4526            |
| 397                    | 51               | 1.97           | 801A0936        | 3690            |
| 397                    | 51               | 2.32           | 861A0936        | 3690            |
| 380                    | 53               | 1.12           | 860A0936        | 1380            |
| 283                    | 72               | 1.62           | 801A1036        | 3860            |
| 283                    | 72               | 1.89           | 861A1036        | 3860            |
| 283                    | 72               | 3.30           | 802A1036        | 4718            |
| 281                    | 73               | 0.94           | 860A1036        | 1380            |
| 262                    | 78               | 3.00           | <b>802A0945</b> | 4780            |
| 262                    | 78               | 3.76           | <b>862A0945</b> | 7200            |
| 262                    | 78               | 1.49           | <b>801A0945</b> | 3100            |
| 262                    | 78               | 1.73           | <b>861A0945</b> | 2300            |
| 257                    | 79               | 1.53           | 801A1136        | 3910            |
| 257                    | 79               | 1.78           | 861A1136        | 3910            |
| 252                    | 81               | 3.09           | 802A1136        | 4800            |
| 247                    | 82               | 0.88           | 860A1136        | 1360            |
| 226                    | 90               | 1.42           | 801A1236        | 3970            |
| 226                    | 90               | 1.64           | 861A1236        | 3970            |
| 225                    | 91               | 2.89           | 802A1236        | 4881            |
| 187                    | 109              | 1.21           | <b>801A1045</b> | 3100            |
| 187                    | 109              | 1.41           | <b>861A1045</b> | 2300            |
| 187                    | 109              | 2.49           | <b>802A1045</b> | 5000            |
| 187                    | 110              | 3.49           | <b>862A1045</b> | 4820            |
| 178                    | 114              | 1.20           | 801A1436        | 4000            |
| 178                    | 114              | 1.41           | 861A1436        | 4000            |
| 177                    | 115              | 2.51           | 802A1436        | 5024            |
| 177                    | 115              | 3.82           | 862A1436        | 4843            |
| 169                    | 120              | 1.12           | <b>801A1145</b> | 3100            |
| 169                    | 120              | 1.33           | <b>861A1145</b> | 2300            |
| 166                    | 123              | 2.33           | <b>802A1145</b> | 5070            |
| 166                    | 123              | 3.36           | <b>862A1145</b> | 4890            |
| 157                    | 130              | 1.08           | 801A1536        | 4000            |
| 157                    | 130              | 1.30           | 861A1536        | 4000            |
| 156                    | 130              | 2.30           | 802A1536        | 5095            |
| 156                    | 131              | 3.44           | 862A1536        | 4915            |
| 151                    | 136              | 3.49           | <b>803A1145</b> | 7200            |
| 149                    | 137              | 1.02           | <b>801A1245</b> | 2650            |
| 149                    | 137              | 1.22           | <b>861A1245</b> | 2300            |
| 148                    | 138              | 2.14           | <b>802A1245</b> | 5130            |
| 148                    | 138              | 3.00           | <b>862A1245</b> | 4950            |
| 134                    | 152              | 3.36           | <b>803A1245</b> | 7200            |
| 131                    | 156              | 2.00           | 802A1736        | 5179            |
| 131                    | 156              | 2.89           | 862A1736        | 4998            |
| 128                    | 159              | 0.92           | 801A1736        | 4000            |
| 128                    | 159              | 1.13           | 861A1736        | 4000            |
| 120                    | 171              | 3.00           | <b>803A1445</b> | 7200            |
| 118                    | 173              | 1.06           | <b>861A1445</b> | 2150            |
| 117                    | 175              | 1.78           | <b>802A1445</b> | 5250            |
| 117                    | 175              | 2.57           | <b>862A1445</b> | 5060            |
| 115                    | 176              | 0.84           | 801A1836        | 4000            |
| 115                    | 176              | 1.06           | 861A1836        | 4000            |
| 114                    | 180              | 1.79           | 802A1836        | 5420            |
| 114                    | 180              | 2.38           | 862A1836        | 5016            |
| 106                    | 193              | 3.18           | 803A1836        | 7200            |
| 103                    | 197              | 0.97           | <b>861A1545</b> | 2000            |
| 103                    | 199              | 1.61           | <b>802A1545</b> | 5350            |
| 103                    | 199              | 2.27           | <b>862A1545</b> | 5150            |
| 101                    | 201              | 0.97           | 861A1936        | 4000            |
| 99.4                   | 205              | 3.72           | 863A1936        | 8331            |
| 97.7                   | 209              | 1.58           | 802A1936        | 5594            |
| 97.7                   | 209              | 2.16           | 862A1936        | 5016            |
| 94.3                   | 217              | 2.74           | <b>803A1545</b> | 7200            |
| 91.8                   | 223              | 2.38           | 803A1936        | 7200            |
| 89.3                   | 227              | 0.91           | 861A2036        | 3850            |
| 87.6                   | 232              | 3.39           | 863A2036        | 8633            |
| 87.4                   | 233              | 1.46           | 802A2036        | 5539            |
| 87.4                   | 233              | 1.93           | 862A2036        | 5431            |
| 86.4                   | 236              | 1.42           | <b>802A1745</b> | 5540            |
| 86.4                   | 237              | 1.91           | <b>862A1745</b> | 5340            |
| 83.2                   | 246              | 2.48           | <b>803A1745</b> | 7200            |
| 82.9                   | 246              | 3.15           | <b>863A1745</b> | 8620            |
| 82.0                   | 249              |                |                 |                 |



## Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 75.0                   | 272              | 1.25           | <b>802A1845</b> | 5680            |
| 75.0                   | 273              | 1.57           | <b>862A1845</b> | 5480            |
| 70.6                   | 289              | 2.17           | 803A2136        | 7200            |
| 69.7                   | 293              | 2.14           | <b>803A1845</b> | 7200            |
| 69.4                   | 293              | 2.75           | 863A2236        | 8833            |
| 69.2                   | 294              | 1.15           | 802A2236        | 5764            |
| 69.2                   | 295              | 1.53           | 862A2236        | 5567            |
| 66.2                   | 308              | 2.04           | 803A2236        | 7200            |
| 65.6                   | 311              | 2.60           | <b>863A1945</b> | 8126            |
| 64.8                   | 314              | 1.08           | 802A2336        | 5822            |
| 64.8                   | 315              | 1.43           | 862A2336        | 5113            |
| 64.5                   | 316              | 1.07           | <b>802A1945</b> | 5820            |
| 64.5                   | 317              | 1.42           | <b>862A1945</b> | 5610            |
| 61.4                   | 331              | 2.46           | 863A2336        | 8092            |
| 60.6                   | 337              | 1.57           | <b>803A1945</b> | 7200            |
| 57.8                   | 352              | 2.33           | <b>863A2045</b> | 7790            |
| 57.6                   | 353              | 0.96           | <b>802A2045</b> | 5920            |
| 57.6                   | 354              | 1.28           | <b>862A2045</b> | 5700            |
| 55.9                   | 365              | 1.72           | 803A2336        | 7200            |
| 54.1                   | 378              | 0.90           | <b>802A2145</b> | 5970            |
| 54.1                   | 377              | 1.20           | <b>862A2145</b> | 5750            |
| 52.9                   | 384              | 2.15           | 863A2536        | 7680            |
| 52.4                   | 389              | 2.13           | <b>863A2145</b> | 7470            |
| 52.3                   | 389              | 1.61           | 803A2536        | 7200            |
| 52.2                   | 390              | 0.87           | 802A2536        | 5983            |
| 52.2                   | 390              | 1.16           | 862A2536        | 4504            |
| 52.1                   | 392              | 1.53           | <b>803A2045</b> | 7200            |
| 51.5                   | 395              | 3.45           | <b>864A2145</b> | 20000           |
| 46.6                   | 438              | 1.43           | <b>803A2145</b> | 7200            |
| 45.8                   | 445              | 1.89           | <b>863A2245</b> | 6963            |
| 45.6                   | 447              | 1.01           | <b>862A2245</b> | 5060            |
| 45.5                   | 447              | 3.27           | <b>864A2245</b> | 20000           |
| 44.4                   | 458              | 1.84           | 863A2636        | 8001            |
| 44.3                   | 460              | 0.98           | 862A2636        | 4522            |
| 43.7                   | 467              | 1.34           | <b>803A2245</b> | 7200            |
| 43.2                   | 470              | 3.45           | 864A2636        | 20190           |
| 42.7                   | 477              | 0.95           | <b>862A2345</b> | 4450            |
| 42.2                   | 483              | 1.30           | 803A2636        | 7200            |
| 40.5                   | 500              | 1.70           | 863A2736        | 7430            |
| 40.5                   | 502              | 1.69           | <b>863A2345</b> | 6666            |
| 40.4                   | 501              | 0.90           | 862A2736        | 3645            |
| 40.3                   | 506              | 3.05           | <b>864A2345</b> | 20000           |
| 39.4                   | 514              | 3.21           | 864A2736        | 20215           |
| 36.9                   | 554              | 1.14           | <b>803A2345</b> | 7200            |
| 35.8                   | 567              | 1.11           | 803A2736        | 7200            |
| 34.9                   | 582              | 1.48           | <b>863A2545</b> | 6666            |
| 34.5                   | 591              | 1.06           | <b>803A2545</b> | 7200            |
| 33.8                   | 598              | 1.45           | 863A2936        | 7261            |
| 33.3                   | 612              | 2.73           | <b>864A2545</b> | 20000           |
| 32.7                   | 623              | 1.01           | 803A2936        | 7200            |
| 32.1                   | 632              | 2.68           | 864A2936        | 18821           |
| 32.1                   | 635              | 3.90           | 865A2936        | 29615           |
| 29.4                   | 690              | 2.45           | 864A3036        | 18617           |
| 29.4                   | 687              | 1.02           | 863A3036        | 7502            |
| 29.3                   | 693              | 1.26           | <b>863A2645</b> | 5217            |
| 29.1                   | 700              | 4.09           | 865A3036        | 29617           |
| 28.5                   | 713              | 2.39           | <b>864A2645</b> | 17987           |
| 27.8                   | 733              | 0.86           | <b>803A2645</b> | 7200            |
| 26.7                   | 758              | 1.15           | <b>863A2745</b> | 5217            |
| 26.0                   | 783              | 2.18           | <b>864A2745</b> | 17718           |
| 25.8                   | 784              | 2.56           | 865A3136        | 29563           |
| 25.5                   | 791              | 1.95           | 864A3136        | 19279           |
| 24.2                   | 831              | 0.91           | 863A4436        | 5530            |
| 23.8                   | 848              | 3.06           | 865A4436        | 29523           |
| 23.6                   | 847              | 1.89           | 864A4436        | 18900           |
| 23.4                   | 871              | 2.84           | <b>865A2845</b> | 29500           |
| 23.3                   | 871              | 2.84           | 865A3236        | 29546           |
| 22.7                   | 884              | 0.88           | 863A4536        | 4630            |
| 22.3                   | 907              | 0.96           | <b>863A2945</b> | 3265            |
| 21.6                   | 930              | 1.78           | 864A4536        | 18103           |
| 21.4                   | 940              | 2.81           | 865A4536        | 29423           |
| 21.2                   | 960              | 1.78           | <b>864A2945</b> | 16267           |
| 21.2                   | 962              | 2.57           | <b>865A2945</b> | 29500           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 20.7                   | 977              | 2.53           | 865A3336        | 29429           |
| 19.4                   | 1046             | 1.63           | <b>864A3045</b> | 15492           |
| 19.2                   | 1050             | 2.73           | 865A4636        | 29429           |
| 19.2                   | 1062             | 2.70           | <b>865A3045</b> | 29400           |
| 19.1                   | 1051             | 1.62           | 864A4636        | 16927           |
| 18.3                   | 1109             | 3.49           | <b>866A3145</b> | 49500           |
| 18.0                   | 1113             | 3.97           | 866A4736        | 49582           |
| 17.3                   | 1166             | 2.46           | 865A4736        | 29376           |
| 17.0                   | 1188             | 1.64           | <b>865A3145</b> | 29390           |
| 16.9                   | 1186             | 1.44           | 864A4736        | 17742           |
| 16.9                   | 1197             | 1.30           | <b>864A3145</b> | 14699           |
| 16.3                   | 1243             | 3.35           | <b>866A3245</b> | 49400           |
| 15.7                   | 1284             | 2.06           | <b>865A4445</b> | 29200           |
| 15.6                   | 1289             | 2.93           | <b>866A4445</b> | 49200           |
| 15.6                   | 1290             | 1.32           | <b>864A4445</b> | 14606           |
| 15.4                   | 1318             | 1.88           | <b>865A3245</b> | 29250           |
| 15.2                   | 1325             | 2.00           | 865A4836        | 29220           |
| 15.2                   | 1331             | 3.13           | <b>866A3345</b> | 49200           |
| 14.9                   | 1346             | 2.81           | 866A4836        | 49101           |
| 14.2                   | 1409             | 1.21           | <b>864A4545</b> | 12236           |
| 14.1                   | 1426             | 1.86           | <b>865A4545</b> | 29100           |
| 14.1                   | 1433             | 2.64           | <b>866A4545</b> | 49000           |
| 14.0                   | 1436             | 1.19           | 864A4936        | 14328           |
| 13.8                   | 1463             | 1.81           | 865A4936        | 29144           |
| 13.7                   | 1482             | 1.64           | <b>865A3345</b> | 28975           |
| 13.2                   | 1522             | 2.90           | <b>866A4645</b> | 48900           |
| 13.0                   | 1549             | 2.44           | 866A4936        | 48771           |
| 12.7                   | 1595             | 1.80           | <b>865A4645</b> | 29100           |
| 12.6                   | 1587             | 2.78           | 866A5036        | 48771           |
| 12.6                   | 1598             | 1.07           | <b>864A4645</b> | 11076           |
| 12.5                   | 1588             | 4.00           | 867A5036        | 66923           |
| 12.2                   | 1646             | 1.74           | 865A5036        | 29082           |
| 12.0                   | 1676             | 1.02           | 864A5036        | 14531           |
| 11.9                   | 1691             | 2.61           | <b>866A4745</b> | 48600           |
| 11.4                   | 1770             | 1.62           | <b>865A4745</b> | 29000           |
| 11.3                   | 1768             | 3.60           | 867A5136        | 66826           |
| 11.2                   | 1802             | 0.95           | <b>864A4745</b> | 9804            |
| 11.1                   | 1819             | 1.58           | 865A5136        | 29006           |
| 11.0                   | 1828             | 2.42           | 866A5136        | 48360           |
| 10.9                   | 1838             | 0.93           | 864A5136        | 12174           |
| 10.5                   | 1904             | 2.19           | 866A5236        | 48326           |
| 10.3                   | 1936             | 3.34           | 867A5236        | 66726           |
| 10.0                   | 2011             | 1.32           | <b>865A4845</b> | 28800           |
| 9.9                    | 2041             | 1.85           | <b>866A4845</b> | 47635           |
| 9.8                    | 2040             | 1.22           | 865A5236        | 28826           |
| 9.20                   | 2155             | 3.00           | 867A5336        | 66730           |
| 9.11                   | 2196             | 1.90           | 866A5336        | 47855           |
| 9.07                   | 2222             | 1.19           | <b>865A4945</b> | 28700           |
| 8.90                   | 2248             | 1.10           | 865A5336        | 28762           |
| 8.55                   | 2353             | 1.61           | <b>866A4945</b> | 46378           |
| 8.34                   | 2411             | 1.83           | <b>866A5045</b> | 46425           |
| 8.27                   | 2410             | 2.64           | <b>867A5045</b> | 66600           |
| 8.22                   | 2426             | 2.62           | 867A5436        | 66636           |
| 8.07                   | 2500             | 1.15           | <b>865A5045</b> | 28600           |
| 7.73                   | 2585             | 2.46           | 867A5536        | 66536           |
| 7.43                   | 2682             | 2.37           | <b>867A5145</b> | 66531           |
| 7.31                   | 2758             | 1.04           | <b>865A5145</b> | 28500           |
| 7.24                   | 2775             | 1.59           | <b>866A5145</b> | 46625           |
| 6.92                   | 2901             | 1.44           | <b>866A5245</b> | 46450           |
| 6.85                   | 2904             | 3.79           | 868A5536        | 80900           |
| 6.76                   | 2938             | 2.20           | <b>867A5245</b> | 66420           |
| 6.73                   | 2952             | 3.43           | 868A5636        | 80900           |
| 6.72                   | 2957             | 2.19           | 867A5636        | 66442           |
| 6.59                   | 3010             | 3.36           | <b>868A5245</b> | 80900           |
| 6.48                   | 2936             | 0.85           | <b>865A5245</b> | 28300           |
| 6.48                   | 3085             | 1.43           | 866A6036        | 41580           |
| 6.28                   | 3179             | 2.00           | 867A6036        | 64632           |
| 6.09                   | 3265             | 3.10           | <b>868A5345</b> | 80900           |
| 6.07                   | 3269             | 1.98           | <b>867A5345</b> | 66373           |
| 6.01                   | 3334             | 1.26           | <b>866A5345</b> | 66404           |
| 5.89                   | 3393             | 1.30           | 866A6136        | 41580           |
| 5.78                   | 3455             | 3.07           | 868A6036        | 80613           |
| 5.71                   | 3497             | 1.82           | 867A6136        | 64632           |
| 5.43                   | 3677             | 1.73           | <b>867A5445</b> | 66232           |
| 5.26                   | 3802             | 2.79           | 866A6136        | 80613           |
| 5.12                   | 3900             | 1.14           | 866A6236        | 41580           |
| 5.10                   | 3920             | 1.63           | <b>867A5545</b> | 66115           |
| 5.07                   | 3935             | 2.80           | <b>868A5445</b> | 80900           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 4.97                   | 4018             | 1.59           | 867A6236        | 64632           |
| 4.57                   | 4368             | 2.43           | 868A6236        | 80613           |
| 4.52                   | 4422             | 1.00           | 866A6336        | 41580           |
| 4.52                   | 4406             | 2.50           | <b>868A5545</b> | 80900           |
| 4.44                   | 4494             | 1.44           | <b>867A5645</b> | 65962           |
| 4.44                   | 4476             | 2.26           | <b>868A5645</b> | 80865           |
| 4.39                   | 4556             | 1.40           | 867A6336        | 64632           |
| 4.27                   | 4677             | 0.95           | <b>866A6045</b> | 41580           |
| 4.15                   | 4820             | 1.32           | <b>867A6045</b> | 64632           |
| 4.10                   | 4877             | 0.91           | 866A6436        | 41580           |
| 4.03                   | 4953             | 2.15           | 868A6336        | 80613           |
| 3.98                   | 5025             | 1.27           | 867A6436        | 64632           |
| 3.89                   | 5145             | 0.86           | <b>866A6145</b> | 41580           |
| 3.81                   | 5238             | 2.03           | <b>868A6045</b> | 80613           |
| 3.77                   | 5302             | 1.20           | <b>867A6145</b> | 64632           |
| 3.66                   | 5463             | 1.95           | 868A6436        | 80613           |
| 3.58                   | 5584             | 0.79           | 866A6536        | 41580           |
| 3.47                   | 5757             | 1.11           | 867A6536        | 64632           |
| 3.47                   | 5764             | 1.84           | <b>868A6145</b> | 80613           |
| 3.28                   | 6091             | 1.05           | <b>867A6245</b> | 64632           |
| 3.19                   | 6258             | 1.70           | 868A6536        | 80613           |
| 3.08                   | 6487             | 0.98           | 867A6636        | 64632           |
| 3.02                   | 6622             | 1.61           | <b>868A6245</b> | 80613           |
| 2.90                   | 6899             | 1.57           | 868A6636        | 80613           |
| 2.89                   | 6908             | 0.92           | <b>867A6345</b> | 64632           |
| 2.73                   | 7338             | 0.87           | 867A6736        | 64632           |
| 2.66                   | 7507             | 1.42           | <b>868A6345</b> | 80613           |
| 2.62                   | 7618             | 0.84           | <b>867A6445</b> | 64632           |
| 2.56                   | 7799             | 1.39           | 868A6736        | 80613           |
| 2.41                   | 8281             | 1.29           | <b>868A6445</b> | 80613           |
| 2.21                   | 9022             | 1.20           | 868A6836        | 80613           |
| 2.11                   | 9485             | 1.12           | <b>868A6545</b> | 80613           |
| 1.91                   | 10459            | 1.04           | <b>868A6645</b> | 80613           |
| 1.86                   | 10785            | 1.01           | 868A6936        | 80613           |
| 1.78                   | 11227            | 0.96           | 868A7036        | 80613           |
| 1.69                   | 11826            | 0.92           | <b>868A6745</b> | 80613           |
| 1.54                   | 13016            | 0.83           | 868A7136        | 80613           |
| 1.46                   | 13711            | 0.79           | <b>868A6845</b> | 80613           |

## 3.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 396                    | 70               | 2.90           | 802A0938        | 4476            |
| 396                    | 70               | 1.44           | 801A0938        | 3100            |
| 396                    | 70               | 1.70           | 861A0938        | 2300            |
| 282                    | 98               | 1.18           | 801A1038        | 3100            |
| 282                    | 98               | 1.38           | 861A1038        | 2300            |
| 282                    | 99               | 2.41           | 802A1038        | 4648            |
| 282                    | 99               | 3.86           | 862A1038        | 4395            |
| 261                    | 106              | 2.89           | <b>863A0953</b> | 8020            |
| 256                    | 109              | 1.12           | 801A1138        | 3100            |
| 256                    | 108              | 1.30           | 861A1138        | 2300            |
| 251                    | 110              | 2.26           | 802A1138        | 4720            |
| 251                    | 111              | 3.69           | 862A1138        | 4450            |
| 228                    | 123              | 3.86           | 803A1138        | 7200            |
| 225                    | 123              | 1.04           | 801A1238        | 3100            |
| 225                    | 123              | 1.20           | 861A1238        | 2300            |
| 224                    | 124              | 2.11           | 802A1238        | 4791            |
| 224                    | 124              | 3.33           | 862A1238        | 4504            |
| 203                    | 137              | 3.73           | 803A1238        | 7200            |
| 188                    | 147              | 2.89           | <b>863A1053</b> |                 |



# Series M Gearboxes : Motorised selection

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 130                    | 214              | 2.11           | 862A1738        | 4850            |
| 127                    | 218              | 0.83           | 861A1738        | 2000            |
| 126                    | 222              | 2.23           | 803A1738        | 7200            |
| 125                    | 222              | 3.27           | 863A1738        | 7698            |
| 117                    | 238              | 2.89           | <b>863A1453</b> | 9090            |
| 114                    | 244              | 3.03           | 863A1838        | 7607            |
| 113                    | 246              | 1.31           | 802A1838        | 5202            |
| 113                    | 246              | 1.74           | 862A1838        | 4855            |
| 105                    | 264              | 2.33           | 803A1838        | 7200            |
| 103                    | 271              | 2.75           | <b>863A1553</b> | 9240            |
| 99.0                   | 281              | 2.72           | 863A1938        | 7670            |
| 97.4                   | 286              | 1.16           | 802A1938        | 5343            |
| 97.4                   | 286              | 1.58           | 862A1938        | 4762            |
| 91.5                   | 305              | 1.74           | 803A1938        | 7200            |
| 87.3                   | 318              | 2.48           | 863A2038        | 7956            |
| 87.1                   | 319              | 1.07           | 802A2038        | 5110            |
| 87.1                   | 319              | 1.42           | 862A2038        | 5204            |
| 84.6                   | 328              | 2.36           | <b>863A1753</b> | 7950            |
| 81.7                   | 341              | 1.00           | 802A2138        | 5140            |
| 81.7                   | 340              | 1.33           | 862A2138        | 5254            |
| 79.2                   | 351              | 2.27           | 863A2138        | 8480            |
| 78.7                   | 354              | 1.69           | 803A2038        | 7200            |
| 77.8                   | 356              | 3.82           | 864A2138        | 18200           |
| 76.9                   | 362              | 2.20           | <b>863A1853</b> | 7683            |
| 70.3                   | 395              | 1.59           | 803A2138        | 7200            |
| 69.1                   | 401              | 2.01           | 863A2238        | 8190            |
| 68.9                   | 403              | 1.12           | 862A2238        | 5221            |
| 68.7                   | 403              | 3.63           | 864A2238        | 18800           |
| 66.9                   | 415              | 1.95           | <b>863A1953</b> | 7218            |
| 66.0                   | 421              | 1.49           | 803A2238        | 7200            |
| 64.6                   | 431              | 1.05           | 862A2338        | 4500            |
| 63.8                   | 434              | 3.74           | <b>864A1953</b> | 19300           |
| 61.1                   | 453              | 1.80           | 863A2338        | 7040            |
| 60.9                   | 458              | 3.37           | 864A2338        | 19500           |
| 59.0                   | 470              | 1.74           | <b>863A2053</b> | 6718            |
| 57.5                   | 481              | 2.95           | <b>864A2053</b> | 19900           |
| 55.7                   | 499              | 1.26           | 803A2338        | 7200            |
| 53.5                   | 519              | 1.59           | <b>863A2153</b> | 6243            |
| 52.7                   | 525              | 1.58           | 863A2538        | 6400            |
| 52.6                   | 527              | 2.58           | <b>864A2153</b> | 18460           |
| 52.1                   | 533              | 1.18           | 803A2538        | 7200            |
| 52.0                   | 534              | 0.85           | 862A2538        | 3280            |
| 50.2                   | 550              | 2.88           | 864A2538        | 20000           |
| 46.7                   | 594              | 1.41           | <b>863A2253</b> | 5491            |
| 46.5                   | 597              | 2.45           | <b>864A2253</b> | 18233           |
| 44.2                   | 626              | 1.35           | 863A2638        | 6898            |
| 43.1                   | 643              | 2.53           | 864A2638        | 18667           |
| 42.0                   | 661              | 0.95           | 803A2638        | 7200            |
| 41.3                   | 670              | 1.27           | <b>863A2353</b> | 5050            |
| 41.2                   | 675              | 2.28           | <b>864A2353</b> | 18181           |
| 40.4                   | 685              | 1.24           | 863A2738        | 6012            |
| 39.8                   | 701              | 4.09           | 865A2738        | 29600           |
| 39.2                   | 704              | 2.35           | 864A2738        | 18492           |
| 36.9                   | 754              | 3.50           | <b>865A2453</b> | 29500           |
| 35.7                   | 777              | 1.11           | <b>863A2553</b> | 5050            |
| 35.6                   | 776              | 0.81           | 803A2738        | 7200            |
| 35.3                   | 787              | 3.15           | 865A2838        | 29600           |
| 34.0                   | 817              | 2.05           | <b>864A2553</b> | 18181           |
| 33.7                   | 818              | 1.06           | 863A2938        | 5750            |
| 33.4                   | 833              | 3.17           | <b>865A2553</b> | 29500           |
| 32.0                   | 864              | 1.96           | 864A2938        | 17475           |
| 32.0                   | 869              | 2.85           | 865A2938        | 29492           |
| 29.9                   | 926              | 0.94           | <b>863A2653</b> | 2898            |
| 29.7                   | 937              | 3.06           | <b>864A2653</b> | 29500           |
| 29.3                   | 945              | 1.79           | 864A3038        | 17036           |
| 29.1                   | 951              | 1.79           | <b>864A2653</b> | 15687           |
| 28.9                   | 959              | 2.99           | 865A3038        | 29478           |
| 27.6                   | 1005             | 3.86           | 866A3138        | 46600           |
| 27.3                   | 1012             | 0.86           | <b>863A2753</b> | 2898            |
| 26.9                   | 1034             | 2.77           | <b>865A2753</b> | 29400           |
| 26.5                   | 1045             | 1.63           | <b>864A2753</b> | 15111           |
| 25.7                   | 1073             | 1.87           | 865A3138        | 29407           |
| 25.5                   | 1082             | 1.43           | 864A3138        | 18755           |
| 24.6                   | 1118             | 3.73           | 866A3238        | 48400           |
| 23.9                   | 1163             | 2.13           | <b>865A2853</b> | 28790           |
| 23.7                   | 1160             | 2.24           | 865A4438        | 29335           |
| 23.6                   | 1162             | 3.25           | 866A4438        | 29500           |
| 23.5                   | 1159             | 1.39           | 864A4438        | 18100           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 23.2                   | 1192             | 2.08           | 865A3238        | 29370           |
| 22.9                   | 1202             | 3.47           | 866A3338        | 49452           |
| 22.5                   | 1236             | 3.37           | <b>866A2953</b> | 49400           |
| 21.6                   | 1281             | 1.33           | <b>864A2953</b> | 13552           |
| 21.6                   | 1284             | 1.93           | <b>865A2953</b> | 29303           |
| 21.5                   | 1273             | 1.30           | 864A4538        | 16724           |
| 21.4                   | 1286             | 2.06           | 865A4538        | 29235           |
| 21.2                   | 1290             | 2.93           | 866A4538        | 29500           |
| 20.7                   | 1337             | 1.85           | 865A3338        | 29234           |
| 20.0                   | 1382             | 3.09           | <b>866A3053</b> | 49100           |
| 20.0                   | 1372             | 3.22           | 866A4638        | 29500           |
| 19.8                   | 1397             | 1.22           | <b>864A3053</b> | 12214           |
| 19.6                   | 1418             | 2.02           | <b>865A3053</b> | 29067           |
| 19.1                   | 1436             | 2.00           | 865A4638        | 29194           |
| 19.0                   | 1439             | 1.19           | 864A4638        | 14693           |
| 18.7                   | 1481             | 2.62           | <b>866A3153</b> | 48845           |
| 18.0                   | 1523             | 2.90           | 866A4738        | 48921           |
| 17.4                   | 1586             | 1.23           | <b>865A3153</b> | 29150           |
| 17.2                   | 1596             | 1.80           | 865A4738        | 29120           |
| 17.2                   | 1598             | 0.97           | <b>864A3153</b> | 11775           |
| 16.9                   | 1622             | 1.05           | 864A4738        | 16100           |
| 16.6                   | 1660             | 2.51           | <b>866A3253</b> | 48681           |
| 15.9                   | 1723             | 0.99           | <b>864A4453</b> | 10683           |
| 15.7                   | 1760             | 1.41           | <b>865A3253</b> | 28995           |
| 15.7                   | 1742             | 3.56           | 867A4838        | 66900           |
| 15.5                   | 1778             | 2.34           | <b>866A3353</b> | 48436           |
| 15.1                   | 1813             | 1.46           | 865A4838        | 28944           |
| 15.0                   | 1842             | 3.37           | <b>867A4553</b> | 66800           |
| 14.9                   | 1842             | 2.05           | 866A4838        | 48286           |
| 14.6                   | 1882             | 0.91           | <b>864A4553</b> | 7953            |
| 14.1                   | 1940             | 3.20           | 867A4938        | 66700           |
| 14.0                   | 1978             | 1.23           | <b>865A3353</b> | 28520           |
| 13.9                   | 1965             | 0.87           | 864A4938        | 11200           |
| 13.7                   | 2002             | 1.32           | 865A4938        | 28813           |
| 13.5                   | 2029             | 3.13           | <b>867A4653</b> | 66700           |
| 12.9                   | 2119             | 1.78           | 866A4938        | 47825           |
| 12.6                   | 2172             | 2.04           | 866A5038        | 47825           |
| 12.5                   | 2173             | 2.93           | 867A5038        | 66738           |
| 12.2                   | 2252             | 1.27           | 865A5038        | 28779           |
| 12.0                   | 2287             | 2.78           | <b>867A4753</b> | 66600           |
| 11.2                   | 2419             | 2.63           | 867A5138        | 66611           |
| 11.0                   | 2489             | 1.15           | 865A5138        | 28648           |
| 10.9                   | 2502             | 1.77           | 866A5138        | 47287           |
| 10.6                   | 2580             | 2.41           | <b>867A4853</b> | 66600           |
| 10.5                   | 2606             | 1.60           | 866A5238        | 47214           |
| 10.2                   | 2649             | 2.44           | 867A5238        | 66511           |
| 10.0                   | 2714             | 3.73           | 868A5238        | 80900           |
| 9.78                   | 2792             | 0.89           | 865A5238        | 28400           |
| 9.50                   | 2870             | 2.16           | <b>867A4953</b> | 66500           |
| 9.19                   | 2947             | 3.43           | 868A5338        | 80900           |
| 9.17                   | 2949             | 2.20           | 867A5338        | 66484           |
| 9.07                   | 3006             | 1.39           | 866A5338        | 46586           |
| 8.86                   | 3076             | 0.81           | 865A5338        | 28300           |
| 8.45                   | 3218             | 1.98           | <b>867A5053</b> | 66328           |
| 8.20                   | 3320             | 1.92           | 867A5438        | 66345           |
| 7.70                   | 3537             | 1.80           | 867A5538        | 66245           |
| 7.69                   | 3533             | 3.12           | <b>868A5053</b> | 80900           |
| 7.66                   | 3551             | 3.10           | 868A5438        | 80900           |
| 7.59                   | 3581             | 1.78           | <b>867A5153</b> | 66225           |
| 7.10                   | 3833             | 2.87           | <b>868A5153</b> | 80900           |
| 6.91                   | 3923             | 1.65           | <b>867A5253</b> | 66100           |
| 6.83                   | 3974             | 2.77           | 868A5538        | 80900           |
| 6.73                   | 4019             | 2.52           | <b>868A5253</b> | 80900           |
| 6.70                   | 4047             | 1.60           | 867A5638        | 66103           |
| 6.70                   | 4039             | 2.51           | 868A5638        | 80900           |
| 6.45                   | 4222             | 1.05           | 866A6038        | 41580           |
| 6.26                   | 4350             | 1.46           | 867A6038        | 64632           |
| 6.22                   | 4360             | 2.32           | <b>868A5353</b> | 80900           |
| 6.20                   | 4365             | 1.48           | <b>867A5353</b> | 66000           |
| 5.87                   | 4643             | 0.95           | 866A6138        | 41580           |
| 5.76                   | 4728             | 2.25           | 868A6038        | 80613           |
| 5.69                   | 4786             | 1.33           | 867A6138        | 64632           |
| 5.54                   | 4910             | 1.30           | <b>867A5453</b> | 65812           |
| 5.24                   | 5203             | 2.04           | 868A6138        | 80613           |
| 5.21                   | 5234             | 1.22           | <b>867A5553</b> | 65675           |
| 5.18                   | 5255             | 2.10           | <b>868A5453</b> | 80900           |
| 5.11                   | 5337             | 0.83           | 866A6238        | 41580           |
| 4.95                   | 5499             | 1.16           | 867A6238        | 64632           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 4.62                   | 5882             | 1.87           | <b>868A5553</b> | 80854           |
| 4.56                   | 5977             | 1.78           | 868A6238        | 80613           |
| 4.53                   | 6000             | 1.08           | <b>867A5653</b> | 65462           |
| 4.53                   | 5976             | 1.69           | <b>868A5653</b> | 80825           |
| 4.37                   | 6235             | 1.02           | 867A6338        | 64632           |
| 4.02                   | 6778             | 1.57           | 868A6338        | 80613           |
| 3.96                   | 6877             | 0.93           | 867A6438        | 64632           |
| 3.65                   | 7476             | 1.42           | 868A6438        | 80613           |
| 3.46                   | 7878             | 0.81           | 867A6538        | 64632           |
| 3.18                   | 8563             | 1.24           | 868A6538        | 80613           |
| 2.89                   | 9440             | 1.15           | 868A6638        | 80613           |
| 2.56                   | 10673            | 1.02           | 868A6738        | 80613           |
| 2.20                   | 12346            | 0.88           | 868A6838        | 80613           |

## 4.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 402                    | 92               | 2.21           | 802A0946        | 4413            |
| 402                    | 92               | 3.18           | 862A0946        | 4160            |
| 401                    | 92               | 1.09           | 801A0946        | 3100            |
| 401                    | 92               | 1.29           | 861A0946        | 2300            |
| 392                    | 94               | 3.26           | 863A0946        | 7490            |
| 324                    | 114              | 3.18           | 803A1046        | 7200            |
| 286                    | 129              | 0.90           | 801A1046        | 2650            |
| 286                    | 129              | 1.05           | 861A1046        | 2300            |
| 286                    | 130              | 1.83           | 802A1046        | 4561            |
| 286                    | 130              | 2.93           | 862A1046        | 4345            |
| 283                    | 131              | 3.26           | 863A1046        | 7780            |
| 261                    | 142              | 2.17           | <b>863A0955</b> | 7888            |
| 260                    | 143              | 0.85           | 801A1146        | 2400            |
| 260                    | 142              | 0.99           | 861A1146        | 2300            |
| 255                    | 145              | 1.72           | 802A1146        | 4620            |
| 255                    | 146              | 2.81           | 862A1146        | 4394            |
| 252                    | 147              | 3.26           | 863A1146        | 7930            |
| 231                    | 161              | 2.93           | 803A1146        | 7200            |
| 229                    | 161              | 3.26           | 863A1246        | 8050            |
| 229                    | 161              | 0.92           | 861A1246        | 2100            |
| 227                    | 163              | 1.61           | 802A1246        | 4678            |
| 227                    | 163              | 2.54           | 862A1246        | 4438            |
| 206                    | 180              | 2.84           | 803A1246        | 7200            |
| 188                    | 197              | 2.17           | <b>863A1055</b> | 8290            |
| 183                    | 202              | 2.54           | 803A1446        | 7200            |
| 179                    | 207              | 1.40           | 802A1446        | 4770            |
| 179                    | 208              | 2.13           | 862A1446        | 4596            |
| 175                    | 211              | 3.11           | 863A1446        | 8370            |
| 168                    | 221              | 2.17           | <b>863A1155</b> | 8420            |
| 158                    | 235              | 1.28           | 802A1546        | 4909            |
| 158                    | 236              | 1.91           | 862A1546        | 4634            |
| 154                    | 241              | 2.86           | 863A1546        | 8510            |
| 153                    | 243              | 2.17           | <b>863A1255</b> | 8522            |
| 144                    | 257              | 2.31           | 803A1546        | 7200            |
| 132                    | 281              | 1.11           | 802A1746        | 4835            |
| 132                    | 281              | 1.61           | 862A1746        | 4666            |
| 127                    | 292              | 2.08           | 803A1746        | 7200            |
| 127                    | 292              | 2.49           | 863A1746        | 7128            |
| 117                    | 318              | 2.17           | <b>863A1455</b> | 8334            |
| 115                    | 321              | 2.31           | 863A1846        | 6943            |
| 115                    | 321              | 3.43           | <b>864A1455</b> | 16700           |
| 115                    | 323              | 1.00           | 802A1846        | 4930            |
| 115                    | 323              | 1.32           | 862A1846        | 4653            |
| 107                    | 347              | 1.77           | 803A1846        | 7200            |
| 103                    | 361              | 2.06           | <b>863A1555</b> | 8232            |
| 103                    |                  |                |                 |                 |

## Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 76.9                   | 482              | 1.65           | <b>863A1855</b> | 6738            |
| 74.3                   | 497              | 3.10           | <b>864A1855</b> | 18100           |
| 71.3                   | 520              | 1.21           | 803A2146        | 7200            |
| 70.1                   | 527              | 1.53           | 863A2246        | 7385            |
| 69.9                   | 530              | 0.85           | 862A2246        | 47900           |
| 69.7                   | 530              | 2.76           | 864A2246        | 17340           |
| 66.9                   | 553              | 1.46           | <b>863A1955</b> | 6083            |
| 66.9                   | 554              | 1.13           | 803A2246        | 7200            |
| 63.8                   | 579              | 2.80           | <b>864A1955</b> | 17670           |
| 62.0                   | 595              | 1.37           | 863A2346        | 5724            |
| 61.8                   | 602              | 2.56           | 864A2346        | 17752           |
| 59.0                   | 627              | 1.31           | <b>863A2055</b> | 5379            |
| 57.5                   | 642              | 2.22           | <b>864A2055</b> | 17988           |
| 56.5                   | 657              | 0.96           | 803A2346        | 7200            |
| 55.3                   | 672              | 3.53           | 865A2446        | 27400           |
| 53.5                   | 693              | 1.20           | <b>863A2155</b> | 4710            |
| 53.5                   | 691              | 1.20           | 863A2546        | 4800            |
| 52.9                   | 700              | 0.90           | 803A2546        | 7200            |
| 52.6                   | 703              | 1.94           | <b>864A2155</b> | 16537           |
| 52.1                   | 716              | 3.58           | <b>865A2155</b> | 27900           |
| 50.9                   | 723              | 2.19           | 864A2546        | 17785           |
| 50.1                   | 744              | 3.23           | 865A2546        | 28200           |
| 46.7                   | 791              | 1.06           | <b>863A2255</b> | 3650            |
| 46.6                   | 800              | 3.58           | <b>865A2255</b> | 29000           |
| 46.5                   | 796              | 1.84           | <b>864A2255</b> | 16025           |
| 44.8                   | 823              | 1.03           | 863A2646        | 5520            |
| 44.6                   | 835              | 3.43           | 865A2646        | 29300           |
| 43.7                   | 845              | 1.92           | 864A2646        | 16763           |
| 42.0                   | 887              | 3.23           | <b>865A2355</b> | 29500           |
| 41.3                   | 894              | 0.95           | <b>863A2355</b> | 3030            |
| 41.2                   | 901              | 1.71           | <b>864A2355</b> | 15909           |
| 41.0                   | 900              | 0.95           | 863A2746        | 4240            |
| 40.4                   | 922              | 3.11           | 865A2746        | 28783           |
| 39.8                   | 926              | 1.79           | 864A2746        | 16338           |
| 36.9                   | 1006             | 2.63           | <b>865A2455</b> | 28425           |
| 35.8                   | 1034             | 2.39           | 865A2846        | 29111           |
| 35.7                   | 1036             | 0.83           | <b>863A2555</b> | 3030            |
| 34.0                   | 1090             | 1.54           | <b>864A2555</b> | 15909           |
| 33.7                   | 1095             | 3.80           | 866A2946        | 43600           |
| 33.4                   | 1110             | 2.38           | <b>865A2555</b> | 28275           |
| 32.5                   | 1136             | 1.49           | 864A2946        | 15792           |
| 32.4                   | 1142             | 2.17           | 865A2946        | 29338           |
| 32.0                   | 1160             | 3.25           | <b>866A2555</b> | 44300           |
| 31.2                   | 1184             | 3.73           | <b>866A2655</b> | 44700           |
| 30.1                   | 1226             | 3.48           | 866A3046        | 45100           |
| 29.7                   | 1242             | 1.37           | 864A3046        | 15060           |
| 29.7                   | 1249             | 2.29           | <b>865A2655</b> | 28250           |
| 29.4                   | 1260             | 2.27           | 865A3046        | 29305           |
| 29.1                   | 1269             | 1.34           | <b>864A2655</b> | 12812           |
| 28.0                   | 1321             | 2.93           | 866A3146        | 46066           |
| 27.1                   | 1367             | 3.23           | <b>866A2755</b> | 46600           |
| 26.9                   | 1378             | 2.08           | <b>865A2755</b> | 27958           |
| 26.5                   | 1393             | 1.22           | <b>864A2755</b> | 11852           |
| 26.1                   | 1411             | 1.42           | 865A3146        | 29212           |
| 25.9                   | 1422             | 2.93           | <b>866A2855</b> | 47300           |
| 25.8                   | 1423             | 1.09           | 864A3146        | 18100           |
| 24.9                   | 1470             | 2.84           | 866A3246        | 47800           |
| 24.1                   | 1525             | 1.70           | 865A4446        | 29100           |
| 23.9                   | 1528             | 2.47           | 866A4446        | 29411           |
| 23.9                   | 1524             | 1.06           | 864A4446        | 17100           |
| 23.9                   | 1551             | 1.60           | <b>865A2855</b> | 27904           |
| 23.6                   | 1567             | 1.58           | 865A3246        | 29151           |
| 23.2                   | 1581             | 2.64           | 866A3346        | 48813           |
| 22.5                   | 1648             | 2.53           | <b>866A2955</b> | 48566           |
| 22.4                   | 1632             | 3.80           | 867A4546        | 66900           |
| 21.8                   | 1674             | 0.99           | 864A4546        | 15000           |
| 21.7                   | 1691             | 1.57           | 865A4546        | 29000           |
| 21.6                   | 1709             | 1.00           | <b>864A2955</b> | 10159           |
| 21.6                   | 1712             | 1.45           | <b>865A2955</b> | 29058           |
| 21.5                   | 1697             | 2.23           | 866A4546        | 29411           |
| 21.0                   | 1758             | 1.41           | 865A3346        | 28990           |
| 20.2                   | 1803             | 2.45           | 866A4646        | 29411           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 20.2                   | 1801             | 3.53           | 867A4646        | 66800           |
| 20.0                   | 1842             | 2.32           | <b>866A3055</b> | 47958           |
| 19.8                   | 1863             | 0.92           | <b>864A3055</b> | 8116            |
| 19.6                   | 1891             | 1.52           | <b>865A3055</b> | 28652           |
| 19.4                   | 1888             | 1.52           | 865A4646        | 28900           |
| 19.3                   | 1891             | 0.90           | 864A4646        | 11900           |
| 18.7                   | 1974             | 1.96           | <b>866A3155</b> | 48027           |
| 18.2                   | 2003             | 2.21           | 866A4746        | 48094           |
| 17.9                   | 2030             | 3.13           | 867A4746        | 66841           |
| 17.5                   | 2098             | 1.37           | 865A4746        | 28800           |
| 17.4                   | 2114             | 0.92           | <b>865A3155</b> | 28850           |
| 16.9                   | 2175             | 2.85           | <b>867A4455</b> | 66700           |
| 16.6                   | 2213             | 1.88           | <b>866A3255</b> | 47784           |
| 15.9                   | 2295             | 1.65           | <b>866A4455</b> | 49200           |
| 15.9                   | 2291             | 2.71           | 867A4846        | 66800           |
| 15.7                   | 2347             | 1.06           | <b>865A3255</b> | 28677           |
| 15.5                   | 2370             | 1.76           | <b>866A3355</b> | 47481           |
| 15.3                   | 2384             | 1.11           | 866A4846        | 28600           |
| 15.1                   | 2422             | 1.56           | 866A4846        | 47267           |
| 15.0                   | 2455             | 2.53           | <b>867A4555</b> | 66741           |
| 14.4                   | 2552             | 1.48           | <b>866A4555</b> | 49000           |
| 14.3                   | 2551             | 2.44           | 867A4946        | 66611           |
| 14.0                   | 2638             | 0.92           | <b>865A3355</b> | 27952           |
| 13.9                   | 2632             | 1.01           | 865A4946        | 28400           |
| 13.5                   | 2710             | 1.63           | <b>866A4655</b> | 48900           |
| 13.5                   | 2705             | 2.35           | <b>867A4655</b> | 66616           |
| 13.1                   | 2786             | 1.36           | 866A4946        | 46641           |
| 12.8                   | 2856             | 1.55           | 866A5046        | 46641           |
| 12.7                   | 2858             | 2.23           | 867A5046        | 66507           |
| 12.4                   | 2961             | 0.97           | 866A5046        | 28400           |
| 12.1                   | 3010             | 1.47           | <b>866A4755</b> | 46358           |
| 12.0                   | 3049             | 2.09           | <b>867A4755</b> | 66516           |
| 11.5                   | 3142             | 3.51           | 868A5046        | 80900           |
| 11.4                   | 3181             | 2.00           | 867A5146        | 66342           |
| 11.2                   | 3273             | 0.88           | 866A5146        | 28200           |
| 11.1                   | 3289             | 1.35           | 866A5146        | 45946           |
| 10.7                   | 3408             | 3.23           | 868A5146        | 80900           |
| 10.6                   | 3426             | 1.22           | 866A5246        | 45824           |
| 10.6                   | 3440             | 1.81           | <b>867A4855</b> | 66437           |
| 10.4                   | 3483             | 1.86           | 867A5246        | 66242           |
| 10.2                   | 3581             | 3.10           | <b>868A4855</b> | 80900           |
| 10.1                   | 3568             | 2.84           | 868A5246        | 80900           |
| 10.1                   | 3634             | 1.04           | <b>866A4855</b> | 44125           |
| 9.50                   | 3827             | 1.62           | <b>867A4955</b> | 66325           |
| 9.40                   | 3861             | 2.88           | <b>868A4955</b> | 80900           |
| 9.32                   | 3874             | 2.61           | 868A5346        | 80900           |
| 9.30                   | 3878             | 1.67           | 867A5346        | 66176           |
| 9.20                   | 3952             | 1.06           | 866A5346        | 45000           |
| 8.73                   | 4189             | 0.90           | <b>866A4955</b> | 40408           |
| 8.52                   | 4292             | 1.03           | <b>866A5055</b> | 40575           |
| 8.45                   | 4291             | 1.48           | <b>867A5055</b> | 65988           |
| 8.31                   | 4365             | 1.46           | 867A5446        | 65981           |
| 7.81                   | 4650             | 1.37           | 867A5546        | 65881           |
| 7.77                   | 4669             | 2.36           | 868A5446        | 80900           |
| 7.69                   | 4711             | 2.34           | <b>868A5055</b> | 80900           |
| 7.59                   | 4774             | 1.33           | <b>867A5155</b> | 65841           |
| 7.39                   | 4941             | 0.90           | <b>866A5155</b> | 42575           |
| 7.10                   | 5110             | 2.16           | <b>868A5155</b> | 80900           |
| 7.07                   | 5164             | 0.81           | <b>866A5255</b> | 42113           |
| 6.92                   | 5225             | 2.11           | 868A5546        | 80900           |
| 6.91                   | 5231             | 1.24           | <b>867A5255</b> | 65700           |
| 6.80                   | 5311             | 1.91           | 868A5646        | 80900           |
| 6.79                   | 5321             | 1.22           | 867A5646        | 65678           |
| 6.73                   | 5358             | 1.89           | <b>868A5255</b> | 80900           |
| 6.54                   | 5551             | 0.80           | 866A6046        | 41580           |
| 6.35                   | 5720             | 1.12           | 867A6046        | 64632           |
| 6.22                   | 5813             | 1.74           | <b>868A5355</b> | 80900           |
| 6.20                   | 5820             | 1.11           | <b>867A5355</b> | 65533           |
| 5.84                   | 6217             | 1.71           | 868A6046        | 80613           |
| 5.77                   | 6292             | 1.01           | 867A6146        | 64632           |
| 5.54                   | 6546             | 0.97           | <b>867A5455</b> | 65287           |
| 5.31                   | 6841             | 1.55           | 868A6146        | 80613           |
| 5.21                   | 6978             | 0.91           | <b>867A5555</b> | 65125           |
| 5.18                   | 7006             | 1.57           | <b>866A5455</b> | 80900           |
| 5.02                   | 7230             | 0.88           | 867A6246        | 64632           |
| 4.62                   | 7859             | 1.35           | 868A6246        | 80613           |
| 4.62                   | 7843             | 1.41           | <b>868A5555</b> | 80798           |
| 4.53                   | 8000             | 0.81           | <b>867A5655</b> | 64837           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 4.53                   | 7968             | 1.27           | <b>868A5655</b> | 80775           |
| 4.08                   | 8912             | 1.19           | 868A6346        | 80613           |
| 3.70                   | 9829             | 1.08           | 868A6446        | 80613           |
| 3.23                   | 11259            | 0.95           | 868A6546        | 80613           |
| 2.93                   | 12412            | 0.88           | 868A6646        | 80613           |

## 5.5 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 407                    | 125              | 1.63           | 802A0954        | 4320            |
| 407                    | 125              | 2.35           | 862A0954        | 4160            |
| 397                    | 128              | 2.40           | 863A0954        | 7393            |
| 329                    | 154              | 2.35           | 803A1054        | 7200            |
| 290                    | 176              | 1.35           | 802A1054        | 4430            |
| 290                    | 177              | 2.17           | 862A1054        | 4270            |
| 287                    | 177              | 2.40           | 863A1054        | 7647            |
| 261                    | 195              | 1.58           | <b>863A0957</b> | 7690            |
| 261                    | 194              | 2.50           | <b>864A0957</b> | 14328           |
| 258                    | 197              | 1.27           | 802A1154        | 4470            |
| 258                    | 198              | 2.07           | 862A1154        | 4310            |
| 255                    | 199              | 2.40           | 863A1154        | 7709            |
| 234                    | 219              | 2.17           | 803A1154        | 7200            |
| 232                    | 219              | 2.40           | 863A1254        | 7732            |
| 230                    | 222              | 1.19           | 802A1254        | 4510            |
| 230                    | 221              | 1.87           | 862A1254        | 4340            |
| 209                    | 244              | 2.09           | 803A1254        | 7200            |
| 188                    | 270              | 1.58           | <b>863A1057</b> | 8020            |
| 186                    | 274              | 1.87           | 803A1454        | 7200            |
| 184                    | 276              | 2.50           | <b>864A1057</b> | 15164           |
| 181                    | 281              | 1.03           | 802A1454        | 4560            |
| 181                    | 282              | 1.57           | 862A1454        | 4390            |
| 178                    | 286              | 2.29           | 863A1454        | 7722            |
| 175                    | 290              | 3.79           | 864A1454        | 15336           |
| 168                    | 304              | 1.58           | <b>863A1157</b> | 8120            |
| 166                    | 307              | 2.50           | <b>864A1157</b> | 15442           |
| 160                    | 318              | 0.94           | 802A1554        | 4570            |
| 160                    | 320              | 1.41           | 862A1554        | 4400            |
| 156                    | 327              | 2.11           | 863A1554        | 7667            |
| 156                    | 325              | 3.76           | 864A1554        | 15648           |
| 153                    | 334              | 1.58           | <b>863A1257</b> | 8180            |
| 149                    | 342              | 2.50           | <b>864A1257</b> | 15614           |
| 146                    | 349              | 1.71           | 803A1554        | 7200            |
| 134                    | 381              | 1.19           | 862A1754        | 4390            |
| 129                    | 396              | 1.53           | 803A1754        | 7200            |
| 129                    | 397              | 1.84           | 863A1754        | 6273            |
| 127                    | 400              | 3.28           | 864A1754        | 16175           |
| 117                    | 436              | 1.70           | 863A1854        | 5948            |
| 117                    | 437              | 1.58           | <b>863A1457</b> | 7200            |
| 116                    | 438              | 0.98           | 862A1854        | 4350            |
| 115                    | 442              | 2.50           | <b>864A1457</b> | 15800           |
| 113                    | 449              | 2.99           | 864A1854        | 16393           |
| 108                    | 471              | 1.31           | 803A1854        | 7200            |
| 103                    | 496              | 1.50           | <b>863A1557</b> | 6720            |
| 103                    | 498              | 2.50           | <b>864A1557</b> | 15821           |
| 102                    | 500              | 1.53           | 863A1954        | 5604            |
| 100                    | 510              | 0.89           | 862A1954        | 3970            |
| 97.1                   | 524              | 2.70           | 864A1954        | 16821           |
| 94.1                   | 543              | 0.98           | 803A1954        | 7200            |
| 89.8                   | 566              | 1.39           | 863A2054        | 5840            |
| 87.5                   | 579              | 2.46           | 864A2054        | 15526           |
| 84.6                   | 602              | 1.29           | <b>863A1757</b> | 5860            |
| 83.7                   | 607              | 2.48           | <b>864A1757</b> | 15777           |
| 81.4                   | 626              | 1.27           | 863A2154        |                 |

# Series M Gearboxes : Motorised selection

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 63.8                   | 798              | 3.47           | 865A2354        | 26068           |
| 63.8                   | 796              | 2.04           | <b>864A1957</b> | 15225           |
| 62.9                   | 807              | 1.01           | 863A2354        | 3751            |
| 62.6                   | 817              | 1.89           | 864A2354        | 15130           |
| 59.0                   | 862              | 0.95           | <b>863A2057</b> | 3369            |
| 57.9                   | 886              | 2.86           | <b>865A2057</b> | 25816           |
| 57.5                   | 882              | 1.61           | <b>864A2057</b> | 15146           |
| 56.1                   | 912              | 2.60           | 865A2454        | 26609           |
| 54.2                   | 937              | 0.89           | 863A2554        | 2400            |
| 53.5                   | 952              | 0.87           | <b>863A2157</b> | 2409            |
| 52.6                   | 966              | 1.41           | <b>864A2157</b> | 13651           |
| 52.1                   | 985              | 2.60           | <b>865A2157</b> | 26386           |
| 51.7                   | 981              | 1.62           | 864A2554        | 14463           |
| 50.8                   | 1008             | 2.38           | 865A2554        | 27177           |
| 48.7                   | 1045             | 3.61           | 866A2554        | 38534           |
| 46.6                   | 1100             | 2.60           | <b>865A2257</b> | 27367           |
| 46.5                   | 1094             | 1.34           | <b>864A2257</b> | 12713           |
| 45.2                   | 1132             | 2.53           | 865A2654        | 28168           |
| 44.3                   | 1146             | 1.42           | 864A2654        | 13907           |
| 42.0                   | 1219             | 2.35           | <b>865A2357</b> | 27621           |
| 41.2                   | 1235             | 3.57           | 866A2754        | 40553           |
| 41.2                   | 1238             | 1.25           | <b>864A2357</b> | 12500           |
| 40.9                   | 1250             | 2.29           | 865A2754        | 27558           |
| 40.3                   | 1255             | 1.32           | 864A2754        | 13107           |
| 39.4                   | 1291             | 3.23           | 866A2854        | 41131           |
| 36.9                   | 1383             | 1.91           | <b>865A2457</b> | 26812           |
| 36.3                   | 1402             | 1.77           | 865A2854        | 28377           |
| 34.2                   | 1485             | 2.81           | 866A2954        | 42931           |
| 34.0                   | 1498             | 1.12           | <b>864A2557</b> | 12500           |
| 33.4                   | 1527             | 1.73           | <b>865A2557</b> | 26437           |
| 32.9                   | 1541             | 1.10           | 864A2954        | 13268           |
| 32.9                   | 1549             | 1.60           | 865A2954        | 29107           |
| 32.0                   | 1595             | 2.37           | <b>866A2557</b> | 42700           |
| 31.2                   | 1628             | 2.71           | <b>866A2657</b> | 43141           |
| 30.5                   | 1662             | 2.57           | 866A3054        | 44336           |
| 30.1                   | 1685             | 1.01           | 864A3054        | 12097           |
| 29.8                   | 1709             | 1.68           | 865A3054        | 29046           |
| 29.7                   | 1717             | 1.67           | <b>865A2657</b> | 26375           |
| 29.1                   | 1744             | 0.98           | <b>864A2657</b> | 8500            |
| 28.4                   | 1791             | 2.17           | 866A3154        | 45266           |
| 27.1                   | 1880             | 2.35           | <b>866A2757</b> | 44541           |
| 27.0                   | 1868             | 3.40           | <b>867A2757</b> | 66700           |
| 26.9                   | 1895             | 1.51           | <b>865A2757</b> | 25795           |
| 26.5                   | 1916             | 0.89           | <b>864A2757</b> | 6963            |
| 26.5                   | 1913             | 1.05           | 865A3154        | 28919           |
| 25.9                   | 1956             | 2.13           | <b>866A2857</b> | 45717           |
| 25.7                   | 1954             | 3.17           | 867A4454        | 66701           |
| 25.3                   | 1993             | 2.09           | 866A3254        | 46900           |
| 24.6                   | 2042             | 3.17           | <b>867A2857</b> | 66700           |
| 24.3                   | 2072             | 1.82           | 866A4454        | 29277           |
| 24.1                   | 2094             | 2.84           | <b>867A4157</b> | 66700           |
| 23.9                   | 2125             | 1.17           | 865A3254        | 28821           |
| 23.9                   | 2133             | 1.16           | <b>865A2857</b> | 26575           |
| 23.5                   | 2144             | 1.95           | 866A3354        | 47854           |
| 22.8                   | 2213             | 2.81           | 867A4554        | 66848           |
| 22.5                   | 2265             | 1.84           | <b>866A2957</b> | 47316           |
| 22.1                   | 2278             | 2.84           | <b>867A2957</b> | 66600           |
| 21.8                   | 2301             | 1.64           | 866A4554        | 29277           |
| 21.7                   | 2313             | 2.75           | <b>867A4257</b> | 66600           |
| 21.6                   | 2354             | 1.05           | <b>865A2957</b> | 28690           |
| 21.2                   | 2384             | 1.04           | 865A3354        | 28624           |
| 20.5                   | 2446             | 1.81           | 866A4654        | 29277           |
| 20.5                   | 2443             | 2.60           | 867A4654        | 66731           |
| 20.0                   | 2533             | 1.69           | <b>866A3057</b> | 46245           |
| 19.6                   | 2600             | 1.10           | <b>865A3057</b> | 28030           |
| 19.2                   | 2606             | 2.44           | <b>867A4357</b> | 66500           |
| 18.7                   | 2715             | 1.43           | <b>866A3157</b> | 46800           |
| 18.5                   | 2716             | 1.63           | 866A4754        | 46853           |
| 18.2                   | 2753             | 2.31           | 867A4754        | 66754           |
| 16.9                   | 2991             | 2.08           | <b>867A4457</b> | 66637           |
| 16.8                   | 2960             | 3.72           | 868A4754        | 80900           |
| 16.6                   | 3043             | 1.37           | <b>866A3257</b> | 46437           |
| 16.2                   | 3099             | 3.59           | <b>868A4457</b> | 80900           |
| 16.1                   | 3107             | 2.00           | 867A4854        | 66650           |
| 15.9                   | 3156             | 1.20           | <b>866A4457</b> | 49200           |
| 15.5                   | 3259             | 1.28           | <b>866A3357</b> | 46050           |
| 15.5                   | 3225             | 3.45           | 868A4854        | 80900           |
| 15.3                   | 3284             | 1.15           | 866A4854        | 45738           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 15.0                   | 3376             | 1.84           | <b>867A4557</b> | 66654           |
| 14.7                   | 3430             | 3.24           | <b>868A4557</b> | 80900           |
| 14.5                   | 3459             | 1.80           | 867A4954        | 66477           |
| 14.4                   | 3508             | 1.08           | <b>866A4557</b> | 49000           |
| 14.3                   | 3505             | 3.17           | 868A4954        | 80900           |
| 13.5                   | 3726             | 1.19           | <b>866A4657</b> | 48900           |
| 13.5                   | 3719             | 1.71           | <b>867A4657</b> | 66491           |
| 13.3                   | 3779             | 1.00           | 866A4954        | 44866           |
| 13.0                   | 3873             | 1.14           | 866A5054        | 44866           |
| 12.9                   | 3876             | 1.64           | 867A5054        | 66161           |
| 12.2                   | 4088             | 2.70           | <b>868A4657</b> | 80900           |
| 12.1                   | 4139             | 1.07           | <b>866A4757</b> | 44490           |
| 12.0                   | 4193             | 1.52           | <b>867A4757</b> | 66391           |
| 11.7                   | 4261             | 2.59           | 868A5054        | 80900           |
| 11.5                   | 4314             | 1.48           | 867A5154        | 65938           |
| 11.2                   | 4461             | 0.99           | 866A5154        | 43934           |
| 11.1                   | 4515             | 2.44           | <b>868A4757</b> | 80900           |
| 10.8                   | 4622             | 2.38           | 868A5154        | 80900           |
| 10.8                   | 4647             | 0.90           | 866A5254        | 43739           |
| 10.6                   | 4730             | 1.32           | <b>867A4857</b> | 66193           |
| 10.5                   | 4724             | 1.37           | 867A5254        | 65838           |
| 10.2                   | 4839             | 2.09           | 868A5254        | 80900           |
| 10.2                   | 4923             | 2.26           | <b>868A4857</b> | 80900           |
| 9.50                   | 5262             | 1.18           | <b>867A4957</b> | 66062           |
| 9.45                   | 5254             | 1.93           | 868A5354        | 80900           |
| 9.43                   | 5259             | 1.23           | 867A5354        | 65715           |
| 9.40                   | 5309             | 2.10           | <b>868A4957</b> | 80900           |
| 8.45                   | 5899             | 1.08           | <b>867A5057</b> | 65479           |
| 8.43                   | 5919             | 1.08           | 867A5454        | 65436           |
| 7.92                   | 6307             | 1.01           | 867A5554        | 65336           |
| 7.87                   | 6331             | 1.74           | 868A5454        | 80900           |
| 7.69                   | 6478             | 1.70           | <b>868A5057</b> | 80900           |
| 7.59                   | 6565             | 0.97           | <b>867A5157</b> | 65266           |
| 7.10                   | 7027             | 1.57           | <b>868A5157</b> | 80900           |
| 7.02                   | 7086             | 1.56           | 868A5554        | 80900           |
| 6.91                   | 7192             | 0.90           | <b>867A5257</b> | 65100           |
| 6.89                   | 7216             | 0.90           | 867A5654        | 65042           |
| 6.89                   | 7202             | 1.41           | 868A5654        | 80900           |
| 6.73                   | 7367             | 1.38           | <b>868A5257</b> | 80900           |
| 6.22                   | 7993             | 1.27           | <b>868A5357</b> | 80900           |
| 6.20                   | 8002             | 0.81           | <b>867A5357</b> | 65833           |
| 5.92                   | 8431             | 1.26           | 868A6054        | 80613           |
| 5.38                   | 9277             | 1.15           | 868A6154        | 80613           |
| 5.18                   | 9634             | 1.15           | <b>868A5457</b> | 80900           |
| 4.69                   | 10658            | 1.00           | 868A6254        | 80613           |
| 4.62                   | 10784            | 1.02           | <b>868A5557</b> | 80713           |
| 4.53                   | 10957            | 0.93           | <b>868A5657</b> | 80700           |
| 4.13                   | 12086            | 0.88           | 868A6354        | 80613           |

## 7.5 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 396                    | 175              | 1.76           | 863A0956        | 7265            |
| 396                    | 174              | 2.77           | 864A0956        | 13458           |
| 286                    | 242              | 1.76           | 863A1056        | 7470            |
| 279                    | 248              | 2.77           | 864A1056        | 13997           |
| 264                    | 262              | 1.85           | <b>864A0965</b> | 14100           |
| 254                    | 272              | 1.76           | 863A1156        | 7415            |
| 251                    | 275              | 2.77           | 864A1156        | 14177           |
| 231                    | 300              | 1.76           | 863A1256        | 7310            |
| 226                    | 307              | 2.77           | 864A1256        | 14357           |
| 186                    | 373              | 1.85           | <b>864A1065</b> | 14850           |
| 177                    | 392              | 1.68           | 863A1456        | 6860            |
| 175                    | 397              | 2.77           | 864A1456        | 14612           |
| 167                    | 414              | 1.85           | <b>864A1165</b> | 15100           |
| 156                    | 448              | 1.54           | 863A1556        | 6545            |
| 156                    | 445              | 2.75           | 864A1556        | 14670           |
| 151                    | 461              | 1.85           | <b>864A1265</b> | 15100           |
| 128                    | 543              | 1.34           | 863A1756        | 5134            |
| 127                    | 547              | 2.40           | 864A1756        | 14656           |
| 118                    | 592              | 3.99           | <b>865A1465</b> | 22500           |
| 117                    | 596              | 1.25           | 863A1856        | 4621            |
| 114                    | 611              | 3.97           | 865A1856        | 22600           |
| 113                    | 614              | 2.19           | 864A1856        | 14523           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 106                    | 661              | 3.71           | <b>865A1565</b> | 23000           |
| 101                    | 684              | 1.12           | 863A1956        | 3952            |
| 100                    | 698              | 3.63           | 865A1956        | 23200           |
| 96.7                   | 717              | 1.97           | 864A1956        | 14395           |
| 94.5                   | 739              | 3.06           | <b>865A1665</b> | 23300           |
| 89.5                   | 775              | 1.02           | 863A2056        | 4148            |
| 87.7                   | 798              | 2.77           | 865A2056        | 23212           |
| 87.2                   | 792              | 1.80           | 864A2056        | 13028           |
| 82.9                   | 843              | 2.78           | <b>865A1765</b> | 22983           |
| 81.1                   | 856              | 0.93           | 863A2156        | 5440            |
| 79.7                   | 869              | 1.57           | 864A2156        | 12740           |
| 78.9                   | 882              | 2.53           | 865A2156        | 23415           |
| 70.8                   | 979              | 0.83           | 863A2256        | 4570            |
| 70.7                   | 986              | 2.77           | 865A2256        | 24134           |
| 70.4                   | 983              | 1.49           | 864A2256        | 12230           |
| 63.6                   | 1091             | 2.53           | 865A2356        | 24702           |
| 62.4                   | 1118             | 1.38           | 864A2356        | 11635           |
| 59.1                   | 1181             | 3.20           | <b>866A2065</b> | 35800           |
| 58.1                   | 1191             | 1.20           | <b>864A2065</b> | 11344           |
| 55.9                   | 1241             | 3.04           | 866A2456        | 36300           |
| 55.9                   | 1247             | 1.90           | 865A2456        | 25550           |
| 53.2                   | 1308             | 2.89           | <b>866A2165</b> | 36900           |
| 53.1                   | 1304             | 1.05           | <b>864A2165</b> | 9803            |
| 51.5                   | 1342             | 1.18           | 864A2556        | 10034           |
| 50.6                   | 1380             | 1.74           | 865A2556        | 25813           |
| 48.5                   | 1430             | 2.64           | 866A2556        | 37839           |
| 47.3                   | 1465             | 3.02           | 866A2656        | 38185           |
| 47.0                   | 1476             | 0.99           | <b>864A2265</b> | 8297            |
| 45.0                   | 1549             | 1.85           | 865A2656        | 26659           |
| 44.1                   | 1568             | 1.04           | 864A2656        | 10200           |
| 41.6                   | 1671             | 0.93           | <b>864A2365</b> | 7954            |
| 41.1                   | 1690             | 2.61           | 866A2756        | 39480           |
| 41.0                   | 1677             | 3.79           | 867A2756        | 66500           |
| 40.8                   | 1710             | 1.68           | 865A2756        | 25925           |
| 40.2                   | 1718             | 0.97           | 864A2756        | 8800            |
| 39.3                   | 1767             | 2.36           | 866A2856        | 40372           |
| 37.3                   | 1843             | 3.51           | 867A2856        | 66800           |
| 36.2                   | 1919             | 1.29           | 865A2856        | 27400           |
| 34.3                   | 2022             | 0.83           | <b>864A2565</b> | 7954            |
| 34.1                   | 2032             | 2.05           | 866A2956        | 42040           |
| 33.5                   | 2046             | 3.16           | 867A2956        | 66700           |
| 32.8                   | 2120             | 1.17           | 865A2956        | 28800           |
| 30.4                   | 2274             | 1.88           | 866A3056        | 43318           |
| 29.7                   | 2339             | 1.23           | 865A3056        | 28700           |
| 28.3                   | 2451             | 1.58           | 866A3156        | 44200           |
| 27.2                   | 2558             | 1.12           | <b>865A2765</b> | 22912           |
| 25.6                   | 2674             | 2.32           | 867A4456        | 66670           |
| 25.2                   | 2727             | 1.53           | 866A3256        | 45700           |
| 24.5                   | 2793             | 3.76           | 868A4456        | 66400           |
| 24.2                   | 2835             | 1.33           | 866A4456        | 29100           |
| 24.1                   | 2878             | 0.86           | <b>865A2865</b> | 24802           |
| 23.5                   | 2933             | 1.42           | 866A3356        | 46576           |
| 22.7                   | 3057             | 1.37           | <b>866A2965</b> | 45650           |
| 22.7                   | 3029             | 2.05           | 867A4556        | 66779           |
| 22.2                   | 3076             | 3.48           | 868A4556        | 66400           |
| 21.7                   | 3148             | 1.20           | 866A4556        | 29100           |
| 20.5                   | 3346             | 1.32           | 866A4656        | 29100           |
| 20.4                   | 3342             | 1.90           | 867A4656        | 66640           |
| 20.2                   | 3418             | 1.25           | <b>866A3065</b> | 43962           |
| 18.8                   | 3664             | 1.06           | <b>866A3165</b> | 45163           |
| 18.5                   | 3687             | 2.99           | 868A4656        | 66400           |
| 18.4                   | 3716             | 1.19           | 866A4756        | 452             |



## Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 9.42                   | 7189             | 1.41           | 868A5356        | 80900           |
| 9.40                   | 7196             | 0.90           | 867A5356        | 65100           |
| 7.85                   | 8663             | 1.27           | 868A5456        | 80900           |
| 7.00                   | 9695             | 1.14           | 868A5556        | 80900           |
| 6.87                   | 9855             | 1.03           | 868A5656        | 80900           |
| 6.28                   | 10787            | 0.94           | <b>868A5365</b> | 80900           |
| 5.23                   | 13002            | 0.85           | <b>868A5465</b> | 80900           |

## 11.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 400                    | 253              | 1.21           | 863A0966        | 7040            |
| 400                    | 253              | 1.91           | 864A0966        | 13197           |
| 289                    | 352              | 1.21           | 863A1066        | 7160            |
| 282                    | 360              | 1.91           | 864A1066        | 13625           |
| 257                    | 395              | 1.21           | 863A1166        | 6900            |
| 254                    | 400              | 1.91           | 864A1166        | 13768           |
| 234                    | 435              | 1.21           | 863A1266        | 6570            |
| 228                    | 445              | 1.91           | 864A1266        | 13910           |
| 199                    | 518              | 3.41           | 865A1366        | 20209           |
| 179                    | 569              | 1.16           | 863A1466        | 5350            |
| 179                    | 571              | 3.65           | 865A1466        | 20624           |
| 176                    | 577              | 1.91           | 864A1466        | 13346           |
| 160                    | 640              | 3.40           | 865A1566        | 21072           |
| 157                    | 650              | 1.06           | 863A1566        | 4580            |
| 157                    | 646              | 1.89           | 864A1566        | 12957           |
| 143                    | 717              | 2.75           | 865A1666        | 20720           |
| 130                    | 788              | 0.93           | 863A1766        | 3140            |
| 128                    | 794              | 1.65           | 864A1766        | 11998           |
| 126                    | 817              | 2.50           | 865A1766        | 21211           |
| 118                    | 865              | 0.86           | 863A1866        | 2300            |
| 115                    | 887              | 2.73           | 865A1866        | 21464           |
| 114                    | 892              | 1.51           | 864A1866        | 11250           |
| 101                    | 1013             | 2.50           | 865A1966        | 21675           |
| 97.7                   | 1041             | 1.36           | 864A1966        | 10251           |
| 91.6                   | 1115             | 3.39           | <b>866A1667</b> | 32000           |
| 89.5                   | 1139             | 3.31           | 866A2066        | 32215           |
| 88.6                   | 1158             | 1.91           | 865A2066        | 21760           |
| 88.1                   | 1150             | 1.24           | 864A2066        | 8656            |
| 81.0                   | 1263             | 2.99           | <b>866A1767</b> | 32600           |
| 80.5                   | 1266             | 2.98           | 866A2166        | 32896           |
| 80.5                   | 1261             | 1.08           | 864A2166        | 8493            |
| 79.8                   | 1280             | 1.75           | 865A2166        | 21602           |
| 75.7                   | 1344             | 3.29           | 866A2266        | 33324           |
| 71.4                   | 1431             | 1.91           | 865A2266        | 22170           |
| 71.2                   | 1427             | 1.03           | 864A2266        | 7120            |
| 68.2                   | 1495             | 2.95           | 866A2366        | 32667           |
| 64.5                   | 1575             | 1.03           | <b>864A1967</b> | 6260            |
| 64.3                   | 1584             | 1.75           | 865A2366        | 22312           |
| 63.0                   | 1622             | 0.95           | 864A2366        | 5517            |
| 59.1                   | 1732             | 2.18           | <b>866A2067</b> | 33980           |
| 58.1                   | 1747             | 0.82           | <b>864A2067</b> | 4690            |
| 57.8                   | 1756             | 3.53           | 867A2466        | 60039           |
| 56.5                   | 1802             | 2.10           | 866A2466        | 35310           |
| 56.5                   | 1811             | 1.31           | 865A2466        | 23709           |
| 53.2                   | 1918             | 1.97           | <b>866A2167</b> | 34597           |
| 52.0                   | 1948             | 0.82           | 864A2566        | 2284            |
| 51.9                   | 1956             | 3.18           | 867A2566        | 61744           |
| 51.2                   | 2003             | 1.20           | 865A2566        | 23427           |
| 50.0                   | 2043             | 2.16           | <b>866A2267</b> | 35273           |
| 49.0                   | 2076             | 1.82           | 866A2566        | 36623           |
| 47.8                   | 2127             | 2.08           | 866A2666        | 37054           |
| 47.1                   | 2177             | 1.32           | <b>865A2267</b> | 21381           |
| 46.1                   | 2194             | 2.90           | 867A2666        | 63271           |
| 45.5                   | 2249             | 1.28           | 865A2666        | 24028           |
| 45.0                   | 2265             | 1.95           | <b>866A2367</b> | 35797           |
| 41.5                   | 2454             | 1.80           | 866A2766        | 37602           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 41.4                   | 2435             | 2.61           | 867A2766        | 65208           |
| 41.2                   | 2483             | 1.16           | 865A2766        | 23066           |
| 39.7                   | 2565             | 1.63           | 866A2866        | 39044           |
| 37.7                   | 2675             | 2.42           | 867A2866        | 65228           |
| 37.3                   | 2703             | 3.68           | 868A2866        | 80924           |
| 36.8                   | 2740             | 2.02           | 867A4166        | 50560           |
| 36.5                   | 2786             | 0.89           | 865A2866        | 25688           |
| 35.6                   | 2818             | 3.46           | 868A4166        | 66432           |
| 34.4                   | 2950             | 1.42           | 866A2966        | 40481           |
| 34.4                   | 2925             | 3.42           | 868A2966        | 80900           |
| 33.8                   | 2970             | 2.18           | 867A2966        | 66000           |
| 33.8                   | 3022             | 0.88           | <b>865A2567</b> | 19700           |
| 33.3                   | 3016             | 2.05           | 867A4266        | 50560           |
| 30.7                   | 3302             | 1.30           | 866A3066        | 41536           |
| 30.5                   | 3279             | 3.36           | 868A4266        | 66432           |
| 30.4                   | 3324             | 1.92           | <b>867A2667</b> | 64772           |
| 29.4                   | 3406             | 1.86           | 867A4366        | 50560           |
| 28.6                   | 3559             | 1.09           | 866A3166        | 42333           |
| 27.3                   | 3697             | 1.72           | <b>867A2767</b> | 64702           |
| 26.9                   | 3718             | 2.96           | 868A4366        | 66432           |
| 25.8                   | 3882             | 1.60           | 867A4466        | 66616           |
| 25.5                   | 3959             | 1.06           | 866A3266        | 43600           |
| 24.9                   | 4042             | 1.60           | <b>867A2867</b> | 63983           |
| 24.7                   | 4054             | 2.59           | 868A4466        | 66275           |
| 24.4                   | 4115             | 0.92           | 866A4466        | 28788           |
| 23.7                   | 4258             | 0.98           | 866A3366        | 44339           |
| 22.9                   | 4397             | 1.42           | 867A4566        | 66658           |
| 22.4                   | 4465             | 2.40           | 868A4566        | 66275           |
| 22.3                   | 4508             | 1.44           | <b>867A2967</b> | 65900           |
| 22.0                   | 4570             | 0.83           | 866A4566        | 28788           |
| 20.7                   | 4858             | 0.91           | 866A4666        | 28788           |
| 20.6                   | 4852             | 1.31           | 867A4666        | 66481           |
| 20.2                   | 5014             | 0.85           | <b>866A3067</b> | 39966           |
| 18.7                   | 5352             | 2.06           | 868A4666        | 66206           |
| 18.3                   | 5468             | 1.17           | 867A4766        | 66433           |
| 17.0                   | 5879             | 1.88           | 868A4766        | 80900           |
| 16.2                   | 6172             | 1.01           | 867A4866        | 66100           |
| 15.6                   | 6406             | 1.74           | 868A4866        | 80900           |
| 14.6                   | 6872             | 0.91           | 867A4966        | 65988           |
| 14.4                   | 6962             | 1.60           | 868A4966        | 80900           |
| 11.8                   | 8465             | 1.30           | 868A5066        | 80900           |
| 10.9                   | 9181             | 1.20           | 868A5166        | 80900           |
| 10.3                   | 9613             | 1.06           | 868A5266        | 80900           |
| 9.52                   | 10437            | 0.97           | 868A5366        | 80900           |
| 7.77                   | 12821            | 0.86           | <b>868A5067</b> | 80900           |

## 15.0KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 656                    | 213              | 3.10           | <b>865A0174</b> | 15400           |
| 476                    | 294              | 2.65           | <b>865A0274</b> | 17100           |
| 444                    | 315              | 2.70           | 865A0668        | 17400           |
| 443                    | 315              | 3.49           | <b>866A0374</b> | 23700           |
| 425                    | 330              | 2.50           | <b>865A0374</b> | 17700           |
| 398                    | 346              | 1.40           | 864A0968        | 12900           |
| 397                    | 352              | 2.49           | 865A0768        | 18000           |
| 390                    | 358              | 3.49           | <b>866A0474</b> | 24700           |
| 379                    | 370              | 2.36           | <b>865A0474</b> | 18200           |
| 327                    | 426              | 3.10           | <b>865A0574</b> | 18600           |
| 324                    | 430              | 3.49           | <b>866A0574</b> | 26000           |
| 320                    | 438              | 3.29           | 865A0968        | 18700           |
| 299                    | 468              | 3.36           | <b>866A0674</b> | 26100           |
| 294                    | 478              | 2.05           | <b>865A0674</b> | 18700           |
| 289                    | 482              | 3.49           | 865A1068        | 18900           |
| 281                    | 492              | 1.40           | 864A1068        | 13200           |
| 277                    | 506              | 3.11           | <b>866A0774</b> | 26300           |
| 263                    | 534              | 1.90           | <b>865A0774</b> | 18884           |
| 258                    | 542              | 3.29           | 865A1168        | 19200           |
| 253                    | 547              | 1.40           | 864A1168        | 13300           |
| 237                    | 589              | 2.65           | <b>865A0874</b> | 19305           |
| 232                    | 599              | 3.49           | <b>866A0874</b> | 27100           |
| 227                    | 609              | 1.40           | 864A1268        | 13400           |
| 221                    | 631              | 2.70           | 865A1268        | 19500           |
| 213                    | 653              | 3.49           | <b>866A0974</b> | 27300           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 212                    | 660              | 2.50           | <b>865A0974</b> | 19663           |
| 198                    | 708              | 2.49           | 865A1368        | 19772           |
| 196                    | 708              | 3.49           | <b>866A1074</b> | 27700           |
| 181                    | 771              | 3.49           | <b>866A1174</b> | 28100           |
| 178                    | 782              | 2.67           | 865A1468        | 20227           |
| 176                    | 789              | 1.40           | 864A1468        | 11900           |
| 159                    | 875              | 2.48           | 865A1568        | 20381           |
| 157                    | 884              | 1.39           | 864A1568        | 11000           |
| 144                    | 966              | 3.49           | <b>866A1274</b> | 29200           |
| 143                    | 981              | 2.01           | 865A1668        | 19486           |
| 138                    | 1008             | 3.66           | 866A1668        | 29400           |
| 131                    | 1067             | 1.90           | <b>865A1374</b> | 20033           |
| 128                    | 1087             | 1.21           | 864A1768        | 8959            |
| 125                    | 1118             | 1.83           | 865A1768        | 19966           |
| 122                    | 1140             | 3.31           | 866A1768        | 30000           |
| 117                    | 1188             | 3.28           | 866A1868        | 30200           |
| 115                    | 1214             | 2.00           | 865A1868        | 20266           |
| 113                    | 1221             | 1.10           | 864A1868        | 7509            |
| 106                    | 1323             | 1.86           | <b>865A1574</b> | 20033           |
| 103                    | 1342             | 3.02           | 866A1968        | 30954           |
| 101                    | 1386             | 1.83           | 865A1968        | 19933           |
| 97.4                   | 1424             | 1.00           | 864A1968        | 5299            |
| 94.5                   | 1478             | 1.53           | <b>865A1674</b> | 19166           |
| 89.2                   | 1559             | 2.42           | 866A2068        | 31354           |
| 88.3                   | 1585             | 1.40           | 865A2068        | 20202           |
| 87.8                   | 1573             | 0.91           | 864A2068        | 3659            |
| 82.9                   | 1686             | 1.39           | <b>865A1774</b> | 18045           |
| 81.4                   | 1708             | 3.64           | 867A2168        | 55200           |
| 80.3                   | 1733             | 2.18           | 866A2168        | 31312           |
| 79.5                   | 1752             | 1.28           | 865A2168        | 19528           |
| 78.3                   | 1772             | 3.59           | <b>867A1874</b> | 55600           |
| 76.2                   | 1832             | 1.50           | <b>865A1874</b> | 18329           |
| 75.5                   | 1839             | 2.40           | 866A2268        | 31628           |
| 73.2                   | 1889             | 3.37           | 867A2268        | 56100           |
| 71.2                   | 1958             | 1.40           | 865A2268        | 19926           |
| 69.1                   | 2008             | 3.14           | <b>867A1974</b> | 56600           |
| 67.9                   | 2046             | 2.16           | 866A2368        | 30688           |
| 66.8                   | 2092             | 1.37           | <b>865A1974</b> | 17921           |
| 65.0                   | 2128             | 2.99           | 867A2368        | 56772           |
| 64.1                   | 2168             | 1.28           | 865A2368        | 19580           |
| 58.5                   | 2392             | 1.06           | <b>865A2074</b> | 17688           |
| 57.6                   | 2403             | 2.58           | 867A2468        | 58681           |
| 56.3                   | 2466             | 1.53           | 866A2468        | 34179           |
| 56.3                   | 2478             | 0.96           | 865A2468        | 21600           |
| 52.6                   | 2658             | 0.97           | <b>865A2174</b> | 16802           |
| 51.9                   | 2662             | 3.75           | 868A2568        | 79400           |
| 51.7                   | 2676             | 2.32           | 867A2568        | 60368           |
| 51.7                   | 2676             | 2.32           | 867A2568        | 60368           |
| 51.0                   | 2741             | 0.88           | 865A2568        | 20700           |
| 48.9                   | 2841             | 1.33           | 866A2568        | 35232           |
| 48.9                   | 2841             | 1.33           | 866A2568        | 35232           |
| 47.6                   | 2910             | 1.52           | 866A2668        | 35762           |
| 47.6                   | 2910             | 1.52           | 866A2668        | 35762           |
| 47.1                   | 2969             | 0.97           | <b>865A2274</b> | 17028           |
| 47.1                   | 2969             | 0.97           | <b>865A2274</b> | 17028           |
| 46.0                   | 3002             | 2.12           | 867A2668        | 61752           |
| 46.0                   | 3002             | 2.12           | 867A2668        | 61752           |
| 42.5                   | 3255             | 3.29           | 868A2668        | 80900           |
| 42.4                   | 3291             | 0.87           | <b>865A2374</b> | 15725           |
| 41.3                   | 3358             | 1.32           | 866A2768        | 35456           |
| 41.3                   | 3331             | 1.91           | 867A2768        | 63733           |
| 39.5                   | 3509             | 1.19           | 866A2868        | 37527           |
| 39.2                   | 3516             | 3.08           | 868A2768        | 80900           |
| 37.6                   | 3661             | 1.77           | 867A2868        | 63433           |
| 37.2                   | 3699             | 2.69           | 868A2868        | 80827           |
| 36.7                   | 3749             | 1.48           | 867A4168        | 49920           |
| 35.4                   | 3856             | 2.53           | 868A4168        | 66304           |
| 34.3                   | 4037             | 1.04           | 866A2968        | 38700           |
| 34.3                   | 4002             | 2.50           | 868A2968        | 80900           |
| 33.7                   | 4064             | 1.59           | 867A2968        | 65200           |
| 33.2                   | 4126             | 1.50           | 867A4268        | 49920           |
| 31.5                   | 4394             | 1.01           | <b>866A2674</b> | 33272           |
| 30.6                   | 4518             | 0.95           | 866A3068        | 39500           |
| 30.4                   | 4532             | 1.41           | <b>867A2674</b> | 62684           |
| 30.4                   | 4487             | 2.46           | 868A            |                 |



# Series M Gearboxes : Motorised selection

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 27.3                   | 5041             | 1.26           | <b>867A2774</b> | 63248           |
| 26.8                   | 5088             | 2.17           | 868A4368        | 66304           |
| 26.0                   | 5309             | 2.04           | <b>868A2774</b> | 78890           |
| 25.7                   | 5312             | 1.17           | 867A4468        | 66554           |
| 24.9                   | 5512             | 1.18           | <b>867A2874</b> | 62008           |
| 24.7                   | 5548             | 1.90           | 868A4468        | 66133           |
| 24.6                   | 5574             | 1.82           | <b>868A2874</b> | 80800           |
| 22.8                   | 6016             | 1.04           | 867A4568        | 66520           |
| 22.7                   | 6046             | 1.68           | <b>868A2974</b> | 80823           |
| 22.4                   | 6110             | 1.76           | 868A4568        | 66133           |
| 22.3                   | 6148             | 1.06           | <b>867A2974</b> | 65390           |
| 20.6                   | 6639             | 0.96           | 867A4668        | 66300           |
| 18.6                   | 7323             | 1.51           | 868A4668        | 65986           |
| 18.2                   | 7482             | 0.85           | 867A4768        | 66200           |
| 16.9                   | 8045             | 1.37           | 868A4768        | 80900           |
| 15.5                   | 8766             | 1.27           | 868A4868        | 80900           |
| 14.3                   | 9526             | 1.17           | 868A4968        | 80900           |
| 11.7                   | 11582            | 0.95           | 868A5068        | 80900           |
| 10.8                   | 12562            | 0.88           | 868A5168        | 80900           |

## 18.5 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 676                    | 254              | 2.85           | <b>866A0175</b> | 20700           |
| 659                    | 262              | 2.53           | <b>865A0175</b> | 15306           |
| 572                    | 302              | 2.51           | 865A0476        | 16006           |
| 484                    | 355              | 2.85           | <b>866A0275</b> | 23000           |
| 479                    | 361              | 2.16           | <b>865A0275</b> | 16936           |
| 445                    | 387              | 2.85           | <b>866A0375</b> | 23560           |
| 444                    | 389              | 2.19           | 865A0676        | 17283           |
| 427                    | 405              | 2.04           | <b>865A0375</b> | 17513           |
| 397                    | 435              | 2.02           | 865A0776        | 17871           |
| 392                    | 440              | 2.85           | <b>866A0475</b> | 24536           |
| 381                    | 454              | 1.92           | <b>865A0475</b> | 18013           |
| 358                    | 481              | 2.83           | 865A0876        | 18271           |
| 336                    | 511              | 3.55           | <b>867A0575</b> | 44500           |
| 326                    | 527              | 2.85           | <b>866A0575</b> | 25813           |
| 320                    | 540              | 2.67           | 865A0976        | 18560           |
| 306                    | 562              | 3.55           | <b>867A0675</b> | 45000           |
| 301                    | 574              | 2.74           | <b>866A0675</b> | 25866           |
| 289                    | 594              | 2.83           | 865A1076        | 18760           |
| 279                    | 620              | 2.54           | <b>866A0775</b> | 26066           |
| 268                    | 638              | 3.55           | <b>867A0775</b> | 45700           |
| 258                    | 668              | 2.67           | 865A1176        | 19025           |
| 242                    | 709              | 3.55           | <b>867A0875</b> | 46300           |
| 233                    | 735              | 2.85           | <b>866A0875</b> | 26843           |
| 221                    | 778              | 2.19           | 865A1276        | 19255           |
| 221                    | 779              | 3.55           | <b>867A0975</b> | 46800           |
| 215                    | 802              | 2.85           | <b>866A0975</b> | 27043           |
| 202                    | 851              | 3.80           | 866A1376        | 27300           |
| 198                    | 873              | 2.02           | 865A1376        | 19390           |
| 193                    | 887              | 3.55           | <b>867A1075</b> | 47600           |
| 184                    | 931              | 3.58           | 866A1476        | 27700           |
| 178                    | 964              | 2.16           | 865A1476        | 19692           |
| 176                    | 974              | 3.55           | <b>867A1175</b> | 48400           |
| 171                    | 1004             | 3.41           | 866A1576        | 28166           |
| 159                    | 1080             | 2.01           | 865A1576        | 19777           |
| 157                    | 1096             | 3.55           | <b>867A1275</b> | 49300           |
| 143                    | 1210             | 1.63           | 865A1676        | 18406           |
| 142                    | 1214             | 3.55           | <b>867A1375</b> | 50100           |
| 138                    | 1243             | 2.97           | 866A1676        | 29096           |
| 125                    | 1367             | 3.55           | <b>867A1475</b> | 51200           |
| 125                    | 1378             | 1.49           | 865A1776        | 18877           |
| 122                    | 1406             | 2.69           | 866A1776        | 29661           |
| 117                    | 1466             | 2.66           | 866A1876        | 29861           |
| 115                    | 1497             | 1.62           | 865A1876        | 19031           |
| 113                    | 1517             | 3.55           | <b>867A1575</b> | 52000           |
| 106                    | 1623             | 1.51           | <b>865A1575</b> | 18648           |
| 104                    | 1638             | 3.84           | 867A1976        | 52700           |
| 103                    | 1655             | 2.45           | 866A1976        | 30551           |
| 101                    | 1709             | 1.49           | 865A1976        | 18408           |
| 98.6                   | 1745             | 3.55           | <b>867A1675</b> | 53100           |
| 95.0                   | 1814             | 1.25           | <b>865A1675</b> | 17237           |
| 91.8                   | 1867             | 3.33           | 867A2076        | 53508           |
| 89.2                   | 1923             | 1.97           | 866A2076        | 30602           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 88.3                   | 1955             | 1.14           | 865A2076        | 18651           |
| 87.1                   | 1978             | 3.01           | <b>867A1775</b> | 54200           |
| 83.3                   | 2069             | 1.14           | <b>865A1775</b> | 15741           |
| 81.4                   | 2106             | 2.95           | 867A2176        | 54351           |
| 80.3                   | 2137             | 1.77           | 866A2176        | 29926           |
| 79.5                   | 2160             | 1.04           | 865A2176        | 17714           |
| 78.7                   | 2174             | 2.93           | <b>867A1875</b> | 54733           |
| 76.5                   | 2248             | 1.22           | <b>865A1875</b> | 15982           |
| 75.5                   | 2268             | 1.95           | 866A2276        | 30244           |
| 73.2                   | 2330             | 2.73           | 867A2276        | 55137           |
| 71.2                   | 2415             | 1.14           | 865A2276        | 17963           |
| 69.5                   | 2464             | 2.56           | <b>867A1975</b> | 55550           |
| 67.9                   | 2523             | 1.75           | 866A2376        | 28955           |
| 67.1                   | 2566             | 1.12           | <b>865A1975</b> | 15055           |
| 65.0                   | 2625             | 2.42           | 867A2376        | 55689           |
| 64.1                   | 2674             | 1.04           | 865A2376        | 17190           |
| 61.1                   | 2797             | 3.87           | 868A2376        | 75200           |
| 61.1                   | 2809             | 2.21           | <b>867A2075</b> | 56896           |
| 58.8                   | 2935             | 0.87           | <b>865A2075</b> | 14694           |
| 57.6                   | 2964             | 2.10           | 867A2476        | 57493           |
| 56.3                   | 3041             | 1.24           | 866A2476        | 33189           |
| 56.2                   | 3042             | 3.49           | 868A2476        | 77000           |
| 52.9                   | 3261             | 0.79           | <b>865A2175</b> | 13271           |
| 51.9                   | 3283             | 3.04           | 868A2576        | 78603           |
| 51.7                   | 3300             | 1.88           | 867A2576        | 59164           |
| 48.9                   | 3504             | 1.08           | 866A2576        | 34026           |
| 47.6                   | 3589             | 1.23           | 866A2676        | 34631           |
| 46.0                   | 3703             | 1.72           | 867A2676        | 60423           |
| 45.2                   | 3789             | 1.17           | <b>866A2375</b> | 29364           |
| 42.5                   | 4015             | 2.67           | 868A2676        | 79736           |
| 41.3                   | 4141             | 1.07           | 866A2776        | 33578           |
| 41.3                   | 4109             | 1.55           | 867A2776        | 62442           |
| 39.5                   | 4328             | 0.97           | 866A2876        | 36200           |
| 39.2                   | 4337             | 2.50           | 868A2776        | 79675           |
| 37.6                   | 4515             | 1.44           | 867A2876        | 61862           |
| 37.5                   | 4578             | 0.83           | <b>866A2475</b> | 31417           |
| 37.2                   | 4562             | 2.18           | 868A2876        | 80742           |
| 36.7                   | 4624             | 1.20           | 867A4176        | 49360           |
| 35.4                   | 4756             | 2.05           | 868A4176        | 66192           |
| 34.3                   | 4935             | 2.03           | 868A2976        | 80900           |
| 33.7                   | 5012             | 1.29           | 867A2976        | 64500           |
| 33.2                   | 5089             | 1.22           | 867A4276        | 49360           |
| 31.7                   | 5391             | 0.82           | <b>866A2675</b> | 29636           |
| 30.6                   | 5561             | 1.15           | <b>867A2675</b> | 60857           |
| 30.4                   | 5533             | 1.99           | 868A4276        | 66192           |
| 29.3                   | 5748             | 1.10           | 867A4376        | 49360           |
| 27.5                   | 6185             | 1.03           | <b>867A2775</b> | 61977           |
| 26.8                   | 6275             | 1.76           | 868A4376        | 66192           |
| 25.7                   | 6552             | 0.95           | 867A4476        | 66500           |
| 25.0                   | 6763             | 0.96           | <b>867A2875</b> | 60279           |
| 24.7                   | 6842             | 1.54           | 868A4476        | 66008           |
| 22.8                   | 7420             | 0.84           | 867A4576        | 66400           |
| 22.5                   | 7543             | 0.86           | <b>867A2975</b> | 64945           |
| 22.4                   | 7536             | 1.42           | 868A4576        | 66008           |
| 18.6                   | 9032             | 1.22           | 868A4676        | 65793           |
| 16.9                   | 9922             | 1.11           | 868A4776        | 80900           |
| 15.5                   | 10811            | 1.03           | 868A4876        | 80900           |
| 14.3                   | 11748            | 0.95           | 868A4976        | 80900           |
| 12.4                   | 13538            | 0.82           | <b>868A4675</b> | 80900           |

## 22.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 1016                   | 201              | 3.60           | 866A0178        | 18100           |
| 991                    | 206              | 2.79           | 865A0178        | 13447           |
| 727                    | 281              | 3.60           | 866A0278        | 20200           |
| 720                    | 285              | 2.38           | 865A0278        | 14860           |
| 669                    | 306              | 3.60           | 866A0378        | 20600           |
| 659                    | 311              | 2.13           | <b>865A0184</b> | 15213           |
| 642                    | 319              | 2.25           | 865A0378        | 15413           |
| 589                    | 348              | 3.60           | 866A0478        | 21400           |
| 572                    | 359              | 2.11           | 865A0478        | 15913           |
| 493                    | 413              | 2.79           | 865A0578        | 16813           |
| 490                    | 415              | 3.60           | 866A0578        | 22800           |
| 484                    | 422              | 2.40           | <b>866A0284</b> | 22847           |
| 479                    | 429              | 1.82           | <b>865A0284</b> | 16773           |
| 452                    | 455              | 3.46           | 866A0678        | 23300           |
| 444                    | 463              | 1.84           | 865A0678        | 17166           |
| 427                    | 481              | 1.72           | <b>865A0384</b> | 17326           |
| 419                    | 490              | 3.21           | 866A0778        | 23800           |
| 397                    | 517              | 1.70           | 865A0778        | 17743           |
| 392                    | 523              | 2.40           | <b>866A0484</b> | 24373           |
| 381                    | 539              | 1.62           | <b>865A0484</b> | 17826           |
| 358                    | 572              | 2.38           | 865A0878        | 18143           |
| 351                    | 582              | 3.60           | 866A0878        | 25300           |
| 336                    | 608              | 2.98           | <b>867A0584</b> | 44375           |
| 322                    | 635              | 3.60           | 866A0978        | 25600           |
| 320                    | 643              | 2.25           | 865A0978        | 18420           |
| 306                    | 668              | 2.98           | <b>867A0684</b> | 44865           |
| 297                    | 688              | 3.60           | 866A1078        | 25900           |
| 289                    | 706              | 2.38           | 865A1078        | 18620           |
| 273                    | 749              | 3.60           | 866A1178        | 26200           |
| 268                    | 759              | 2.98           | <b>867A0784</b> | 45546           |
| 258                    | 794              | 2.25           | 865A1178        | 18850           |
| 242                    | 843              | 2.98           | <b>867A0884</b> | 46127           |
| 233                    | 874              | 2.40           | <b>866A0884</b> | 26586           |
| 221                    | 925              | 1.84           | 865A1278        | 19020           |
| 221                    | 927              | 2.98           | <b>867A0984</b> | 46617           |
| 218                    | 938              | 3.35           | 866A1278        | 26800           |
| 202                    | 1012             | 3.20           | 866A1378        | 27102           |
| 198                    | 1039             | 1.70           | 865A1378        | 19009           |
| 193                    | 1055             | 2.98           | <b>867A1084</b> | 47389           |
| 184                    | 1107             | 3.01           | 866A1478        | 27502           |
| 178                    | 1147             | 1.82           | 865A1478        | 19257           |
| 176                    | 1159             | 2.98           | <b>867A1184</b> | 48169           |
| 171                    | 1193             | 2.87           | 866A1578        | 27933           |
| 159                    | 1284             | 1.70           | 865A1578        | 19172           |
| 157                    | 1303             | 2.98           | <b>867A1284</b> | 49031           |
| 143                    | 1439             | 1.37           | 865A1678        | 17327           |
| 142                    | 1444             | 2.98           | <b>867A1384</b> | 49812           |
| 138                    | 1478             | 2.49           | 866A1678        | 28793           |
| 131                    | 1564             | 3.80           | 867A1778        | 50400           |
| 125                    | 1625             | 2.98           | <b>867A1484</b> | 50854           |
| 125                    | 1639             | 1.25           | 865A1778        | 17788           |
| 122                    | 1672             | 2.26           | 866A1778        | 29323           |
| 118                    | 1722             | 3.69           | 867A1878        | 51300           |
| 117                    | 1743             | 2.24           | 866A1878        | 29523           |
| 115                    | 1780             | 1.36           | 865A1878        | 17895           |
| 113                    | 1803             | 2.98           | <b>867A1584</b> | 51558           |
| 104                    | 1948             | 3.23           | 867A1978        | 52028           |
| 103                    | 1968             | 2.06           | 866A1978        | 30248           |
| 101                    | 2033             | 1.25           | 865A1978        | 16884           |
| 98.6                   | 2075             | 2.98           | <b>867A1684</b> | 52476           |
| 95.0                   | 2157             | 1.05           | <b>865A1684</b> | 15308           |
| 91.8                   | 2220             | 2.80           | 867A2078        | 52817           |
| 89.2                   | 2287             | 1.65           | 866A2078        | 29848           |
| 88.3                   | 2325             | 0.96           | 865A2078        | 17200           |
| 83.3                   | 2461             | 0.96           | <b>865A1784</b> | 13436           |
| 81.4                   | 2505             | 2.48           | 867A2178        | 53502           |
| 80.3                   | 2542             | 1.49           | 866A2178        | 28540           |
| 79.5                   | 2569             | 0.87           | 865A2178        | 15899           |
| 76.5                   | 2674             | 1.03           | <b>865A1884</b> | 13634           |
| 75.5                   | 2697             | 1.64           | 866A2278        | 28660           |
| 73.2                   | 2771             | 2.30           | 867A2278        | 54175           |
| 71.2                   | 2872             | 0.96           | 865A2278        | 15999           |
| 67.9                   | 3001             | 1.47           | 866A2378        | 27223           |
| 67.4                   | 3009             | 3.53           | 868A2278        | 73600           |
| 67.1                   | 3052             | 0.94           | <b>865A1984</b> | 12190           |
| 65.0                   | 3121             | 2.04           | 867A2378        | 54606           |
| 64.1                   | 3180             | 0.87           | 865A2378        | 14800           |

## Series M Gearboxes : Motorised selection

### Bold print indicates a 6 pole motor is used

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 61.1                   | 3326             | 3.25           | 868A2378        | 74382           |
| 57.6                   | 3525             | 1.76           | 867A2478        | 56306           |
| 56.3                   | 3616             | 1.05           | 866A2478        | 32200           |
| 56.2                   | 3618             | 2.93           | 868A2478        | 75965           |
| 51.9                   | 3905             | 2.56           | 868A2578        | 77807           |
| 51.7                   | 3925             | 1.58           | 867A2578        | 57960           |
| 48.9                   | 4167             | 0.91           | 866A2578        | 32800           |
| 47.6                   | 4268             | 1.04           | 866A2678        | 33500           |
| 46.0                   | 4403             | 1.45           | 867A2678        | 59094           |
| 42.5                   | 4774             | 2.25           | 868A2678        | 78572           |
| 41.3                   | 4924             | 0.90           | 866A2778        | 31700           |
| 41.3                   | 4886             | 1.30           | 867A2778        | 61151           |
| 39.2                   | 5157             | 2.10           | 868A2778        | 78450           |
| 37.6                   | 5369             | 1.21           | 867A2878        | 60291           |
| 37.2                   | 5425             | 1.94           | 868A2878        | 80657           |
| 36.7                   | 5498             | 1.01           | 867A4178        | 48800           |
| 35.4                   | 5656             | 1.73           | 868A4178        | 66080           |
| 34.3                   | 5869             | 1.71           | 868A2978        | 80900           |
| 33.7                   | 5960             | 1.09           | 867A2978        | 63800           |
| 33.2                   | 6052             | 1.02           | 867A4278        | 48800           |
| 30.6                   | 6613             | 0.97           | <b>867A2684</b> | 59030           |
| 30.4                   | 6580             | 1.68           | 868A4278        | 66080           |
| 29.3                   | 6836             | 0.93           | 867A4378        | 48800           |
| 28.3                   | 7176             | 1.50           | <b>868A2684</b> | 75975           |
| 27.5                   | 7356             | 0.87           | <b>867A2784</b> | 60706           |
| 26.8                   | 7462             | 1.48           | 868A4378        | 66080           |
| 26.1                   | 7747             | 1.40           | <b>868A2784</b> | 75375           |
| 25.0                   | 8042             | 0.81           | <b>867A2884</b> | 58551           |
| 24.7                   | 8133             | 1.25           | <b>868A2884</b> | 80706           |
| 24.7                   | 8136             | 1.30           | 868A4478        | 65884           |
| 22.8                   | 8822             | 1.15           | <b>868A2984</b> | 80752           |
| 22.4                   | 8961             | 1.20           | 868A4578        | 65884           |
| 18.6                   | 10741            | 1.03           | 868A4678        | 65600           |
| 16.9                   | 11799            | 0.94           | 868A4778        | 80900           |
| 15.5                   | 12856            | 0.87           | 868A4878        | 80900           |

### 30.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 1019                   | 273              | 2.65           | 866A0188        | 17995           |
| 994                    | 280              | 2.05           | 865A0188        | 13326           |
| 730                    | 382              | 2.65           | 866A0288        | 19960           |
| 722                    | 387              | 1.76           | 865A0288        | 14700           |
| 671                    | 416              | 2.65           | 866A0388        | 20460           |
| 666                    | 420              | 1.58           | <b>865A0191</b> | 15000           |
| 644                    | 434              | 1.65           | 865A0388        | 15200           |
| 591                    | 473              | 2.65           | 866A0488        | 21260           |
| 574                    | 487              | 1.56           | 865A0488        | 15700           |
| 506                    | 550              | 3.30           | 867A0588        | 39200           |
| 495                    | 562              | 2.05           | 865A0588        | 16600           |
| 491                    | 564              | 2.65           | 866A0588        | 22626           |
| 484                    | 580              | 1.35           | <b>865A0291</b> | 16400           |
| 461                    | 605              | 3.30           | 867A0688        | 40200           |
| 453                    | 618              | 2.55           | 866A0688        | 23056           |
| 445                    | 629              | 1.36           | 865A0688        | 16900           |
| 432                    | 649              | 1.27           | <b>865A0391</b> | 16900           |
| 420                    | 667              | 2.36           | 866A0788        | 23556           |
| 404                    | 687              | 3.30           | 867A0788        | 41800           |
| 399                    | 703              | 1.25           | 865A0788        | 17450           |
| 396                    | 706              | 1.78           | <b>866A0491</b> | 24000           |
| 384                    | 728              | 1.20           | <b>865A0491</b> | 17400           |
| 365                    | 763              | 3.30           | 867A0888        | 43000           |
| 360                    | 777              | 1.76           | 865A0888        | 17850           |
| 352                    | 791              | 2.65           | 866A0888        | 25056           |
| 341                    | 813              | 3.10           | <b>868A0591</b> | 56900           |
| 333                    | 839              | 3.30           | 867A0988        | 44100           |
| 332                    | 839              | 1.58           | <b>865A0591</b> | 17800           |
| 323                    | 863              | 2.65           | 866A0988        | 25356           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 321                    | 873              | 1.65           | 865A0988        | 18100           |
| 303                    | 917              | 3.10           | <b>868A0691</b> | 58400           |
| 298                    | 941              | 1.04           | <b>865A0691</b> | 17600           |
| 298                    | 935              | 2.65           | 866A1088        | 25621           |
| 292                    | 954              | 3.30           | 867A1088        | 44800           |
| 290                    | 960              | 1.76           | 866A1088        | 18300           |
| 281                    | 996              | 1.58           | <b>866A0791</b> | 25300           |
| 274                    | 1018             | 2.65           | 866A1188        | 25886           |
| 267                    | 1051             | 0.97           | <b>865A0791</b> | 17700           |
| 265                    | 1048             | 3.30           | 867A1188        | 45300           |
| 259                    | 1079             | 1.65           | 866A1188        | 18450           |
| 258                    | 1075             | 3.10           | <b>868A0791</b> | 59600           |
| 244                    | 1139             | 3.10           | <b>868A0891</b> | 60000           |
| 241                    | 1161             | 1.35           | <b>865A0891</b> | 18200           |
| 237                    | 1179             | 3.30           | 867A1288        | 45800           |
| 236                    | 1180             | 1.78           | <b>866A0891</b> | 26000           |
| 222                    | 1258             | 1.36           | 866A1288        | 18450           |
| 219                    | 1275             | 2.47           | 866A1288        | 26417           |
| 217                    | 1281             | 3.10           | <b>868A0991</b> | 60800           |
| 215                    | 1300             | 1.27           | <b>865A0991</b> | 18400           |
| 214                    | 1306             | 3.30           | 867A1388        | 46300           |
| 202                    | 1375             | 2.35           | 866A1388        | 26649           |
| 199                    | 1411             | 1.25           | 865A1388        | 18136           |
| 189                    | 1470             | 3.30           | 867A1488        | 47100           |
| 185                    | 1504             | 2.22           | 866A1488        | 27049           |
| 185                    | 1504             | 3.10           | <b>868A1091</b> | 62000           |
| 179                    | 1558             | 1.34           | 866A1488        | 18263           |
| 171                    | 1622             | 2.11           | 866A1588        | 27400           |
| 171                    | 1628             | 3.30           | 867A1588        | 47800           |
| 164                    | 1691             | 3.10           | <b>868A1191</b> | 63200           |
| 160                    | 1745             | 1.25           | 866A1588        | 17790           |
| 150                    | 1849             | 3.10           | <b>868A1291</b> | 64200           |
| 149                    | 1875             | 3.30           | 867A1688        | 48800           |
| 143                    | 1956             | 1.01           | 865A1688        | 14859           |
| 139                    | 2009             | 1.84           | 866A1688        | 28100           |
| 135                    | 2053             | 3.10           | <b>868A1391</b> | 65300           |
| 131                    | 2125             | 2.80           | 867A1788        | 49517           |
| 126                    | 2228             | 0.92           | 865A1788        | 15300           |
| 123                    | 2272             | 1.66           | 866A1788        | 28550           |
| 120                    | 2331             | 1.02           | <b>865A1491</b> | 15700           |
| 119                    | 2340             | 2.72           | 867A1888        | 50288           |
| 118                    | 2369             | 1.65           | 866A1888        | 28750           |
| 115                    | 2419             | 1.01           | 865A1888        | 15300           |
| 115                    | 2423             | 3.10           | <b>866A1591</b> | 28300           |
| 114                    | 2443             | 1.60           | <b>868A1491</b> | 67100           |
| 107                    | 2605             | 0.95           | <b>865A1591</b> | 14100           |
| 105                    | 2648             | 2.38           | 867A1988        | 50461           |
| 104                    | 2675             | 1.52           | 866A1988        | 29227           |
| 102                    | 2711             | 3.10           | <b>868A1591</b> | 68200           |
| 101                    | 2763             | 0.92           | 865A1988        | 13400           |
| 97.2                   | 2850             | 3.65           | 868A1988        | 68600           |
| 96.0                   | 2911             | 1.78           | <b>865A1691</b> | 10900           |
| 93.0                   | 2995             | 1.26           | <b>866A1691</b> | 28700           |
| 92.1                   | 3018             | 2.06           | 867A2088        | 51237           |
| 89.5                   | 3108             | 1.22           | 866A2088        | 28127           |
| 89.5                   | 3099             | 3.59           | 868A2088        | 69600           |
| 88.0                   | 3175             | 1.88           | <b>867A1791</b> | 51584           |
| 81.7                   | 3404             | 1.83           | 867A2188        | 51562           |
| 81.2                   | 3414             | 3.26           | 868A2188        | 70600           |
| 80.5                   | 3454             | 1.10           | 866A2188        | 25372           |
| 79.5                   | 3490             | 1.82           | <b>867A1891</b> | 51887           |
| 75.7                   | 3666             | 1.21           | 866A2288        | 25268           |
| 73.5                   | 3766             | 1.69           | 867A2288        | 51975           |
| 70.2                   | 3955             | 1.60           | <b>867A1991</b> | 52100           |
| 68.2                   | 4078             | 1.09           | 866A2388        | 23264           |
| 67.6                   | 4090             | 2.60           | 868A2288        | 71941           |
| 65.2                   | 4242             | 1.50           | 867A2388        | 52132           |
| 61.7                   | 4509             | 1.38           | <b>867A2091</b> | 52612           |
| 61.3                   | 4520             | 2.39           | 868A2388        | 72513           |
| 60.0                   | 4651             | 0.82           | <b>866A2091</b> | 24100           |
| 57.8                   | 4790             | 1.30           | 867A2488        | 53590           |
| 56.4                   | 4917             | 2.16           | 868A2488        | 73600           |
| 54.7                   | 5078             | 1.23           | <b>867A2191</b> | 52868           |
| 52.1                   | 5306             | 1.88           | 868A2588        | 75987           |
| 51.9                   | 5333             | 1.17           | 867A2588        | 55208           |
| 49.2                   | 5626             | 1.13           | <b>867A2291</b> | 53775           |
| 46.1                   | 5984             | 1.07           | 867A2688        | 56057           |
| 42.6                   | 6488             | 1.65           | 868A2688        | 75912           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 41.4                   | 6640             | 0.96           | 867A2788        | 58200           |
| 39.3                   | 7009             | 1.55           | 868A2788        | 75650           |
| 37.7                   | 7296             | 0.89           | 867A2888        | 56700           |
| 37.3                   | 7372             | 1.35           | 868A2888        | 80463           |
| 35.6                   | 7686             | 1.27           | 868A4188        | 65824           |
| 34.4                   | 7976             | 1.26           | 868A2988        | 80900           |
| 30.5                   | 8943             | 1.24           | 868A4288        | 65824           |
| 28.6                   | 9686             | 1.11           | <b>868A2691</b> | 72393           |
| 26.9                   | 10141            | 1.09           | 868A4388        | 65824           |
| 26.4                   | 10456            | 1.04           | <b>868A2791</b> | 71356           |
| 25.0                   | 10978            | 0.93           | <b>868A2891</b> | 80600           |
| 24.7                   | 11057            | 0.95           | 868A4488        | 65600           |
| 23.1                   | 11908            | 0.85           | <b>868A2991</b> | 80671           |
| 22.4                   | 12178            | 0.88           | 868A4588        | 65600           |
| 20.4                   | 13345            | 0.83           | <b>868A4291</b> | 64700           |

### 37.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 1023                   | 336              | 2.15           | 866A0194        | 17904           |
| 997                    | 345              | 1.67           | 865A0194        | 13220           |
| 732                    | 470              | 2.15           | 866A0294        | 19839           |
| 724                    | 475              | 1.43           | 865A0294        | 14560           |
| 673                    | 512              | 2.15           | 866A0394        | 20339           |
| 646                    | 534              | 1.35           | 865A0394        | 15023           |
| 593                    | 581              | 2.15           | 866A0494        | 21139           |
| 576                    | 599              | 1.27           | 865A0494        | 15513           |
| 511                    | 669              | 3.77           | 868A0594        | 50300           |
| 508                    | 676              | 2.68           | 867A0594        | 39071           |
| 497                    | 690              | 1.67           | 865A0594        | 16413           |
| 493                    | 693              | 2.15           | 866A0594        | 22473           |
| 463                    | 743              | 2.68           | 867A0694        | 40071           |
| 455                    | 759              | 2.07           | 866A0694        | 22843           |
| 454                    | 754              | 3.77           | 868A0694        | 52100           |
| 447                    | 773              | 1.10           | 865A0694        | 16666           |
| 421                    | 819              | 1.92           | 866A0794        | 23343           |
| 405                    | 844              | 2.68           | 867A0794        | 41648           |
| 400                    | 863              | 1.02           | 865A0794        | 17193           |
| 386                    | 884              | 3.77           | 868A0794        | 54600           |
| 366                    | 937              | 2.68           | 867A0894        | 42825           |
| 366                    | 937              | 3.77           | 868A0894        | 55400           |
| 361                    | 955              | 1.43           | 865A0894        | 17593           |
| 353                    | 972              | 2.15           | 866A0894        | 24843           |
| 341                    | 1002             | 2.52           | <b>868A0592</b> | 56704           |
| 334                    | 1031             | 2.68           | 867A0994        | 43913           |
| 325                    | 1054             | 3.77           | 868A0994        | 57400           |
| 325                    | 1060             | 2.15           | 866A0994        | 25143           |
| 322                    | 1073             | 1.35           | 865A0994        | 17820           |
| 309                    | 1113             | 1.79           | <b>867A0692</b> | 44290           |
| 303                    | 1129             | 2.52           | <b>868A0692</b> | 58176           |
| 299                    | 1149             | 2.15           | 866A1094        | 25378           |
| 293                    | 1173             | 2.68           | 867A1094        | 44590           |
| 291                    | 1180             | 1.43           | 865A1094        | 18020           |
| 277                    | 1237             | 3.77           | 868A1094        | 58800           |
| 275                    | 1251             | 2.15           | 866A1194        | 25613           |
| 266                    | 1288             | 2.68           | 867A1194        | 45066           |
| 259                    | 1327             | 1.35           | 865A1194        | 18100           |
| 258                    | 1324             | 2.52           | <b>868A0792</b> | 59320           |
| 246                    | 1391             | 3.77           | 868A1194        | 59600           |
| 238                    | 1449             | 2.68           | 867A1294        | 45543           |
| 225                    | 1521             | 3.77           | 868A1294        | 60200           |
| 223                    | 1543             | 1.79           | <b>867A0992</b> | 45836           |
| 219                    | 1567             | 2.01           | 866A1294        | 26082           |
| 214                    | 1606             | 2.68           | 867A1394        | 46020           |
| 203                    | 1690             | 1.92           | 866A1394        | 26252           |
| 203                    | 1689             | 3.77           | 868A1394        | 60900           |
| 199                    | 1735             | 1.02           | 865A1394        | 17372           |
| 190                    | 1807             | 2.68           | 867A1494        | 46773           |
| 186                    | 1849             | 1.81           | 866A1494        | 26652           |
| 185                    | 1853             |                |                 |                 |

## Series M Gearboxes : Motorised selection

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 164                    | 2083             | 2.52           | <b>868A1192</b> | 62780           |
| 161                    | 2145             | 1.02           | 865A1594        | 16581           |
| 159                    | 2170             | 1.79           | <b>867A1292</b> | 47880           |
| 153                    | 2230             | 3.77           | 868A1594        | 63400           |
| 149                    | 2304             | 2.68           | 867A1694        | 48181           |
| 147                    | 2336             | 3.77           | 868A1694        | 63900           |
| 144                    | 2405             | 0.82           | 865A1694        | 12700           |
| 143                    | 2405             | 1.79           | <b>867A1392</b> | 48579           |
| 139                    | 2470             | 1.50           | 866A1694        | 27493           |
| 135                    | 2529             | 2.52           | <b>868A1392</b> | 64768           |
| 132                    | 2613             | 2.28           | 867A1794        | 48745           |
| 129                    | 2650             | 3.77           | 868A1794        | 65200           |
| 127                    | 2707             | 1.79           | <b>867A1492</b> | 49375           |
| 123                    | 2793             | 1.35           | 866A1794        | 27873           |
| 119                    | 2876             | 2.21           | 867A1894        | 49402           |
| 118                    | 2911             | 1.34           | 866A1894        | 28073           |
| 114                    | 2997             | 1.79           | <b>867A1592</b> | 49668           |
| 111                    | 3066             | 3.33           | 868A1894        | 66700           |
| 105                    | 3254             | 1.94           | 867A1994        | 49098           |
| 104                    | 3288             | 1.24           | 866A1994        | 28421           |
| 99.6                   | 3450             | 1.79           | <b>867A1692</b> | 49805           |
| 97.5                   | 3503             | 2.97           | 868A1994        | 67981           |
| 92.4                   | 3709             | 1.68           | 867A2094        | 49855           |
| 89.8                   | 3820             | 0.99           | 866A2094        | 26621           |
| 89.8                   | 3809             | 2.92           | 868A2094        | 68981           |
| 88.0                   | 3912             | 1.52           | <b>867A1792</b> | 49993           |
| 86.2                   | 3968             | 2.52           | <b>868A1792</b> | 69288           |
| 82.0                   | 4184             | 1.49           | 867A2194        | 49865           |
| 81.4                   | 4197             | 2.65           | 868A2194        | 69783           |
| 80.8                   | 4245             | 0.89           | 866A2194        | 22600           |
| 79.5                   | 4307             | 1.48           | <b>867A1892</b> | 50155           |
| 76.0                   | 4506             | 0.98           | 866A2294        | 22300           |
| 73.9                   | 4591             | 2.23           | <b>868A1892</b> | 70620           |
| 73.7                   | 4629             | 1.38           | 867A2294        | 50050           |
| 70.2                   | 4873             | 1.30           | <b>867A1992</b> | 50000           |
| 68.4                   | 5013             | 0.88           | 866A2394        | 19800           |
| 67.8                   | 5027             | 2.11           | 868A2394        | 70489           |
| 65.4                   | 5214             | 1.22           | 867A2394        | 49967           |
| 65.1                   | 5245             | 1.99           | <b>868A1992</b> | 71327           |
| 61.7                   | 5554             | 1.12           | <b>867A2092</b> | 50005           |
| 61.5                   | 5556             | 1.95           | 868A2394        | 70879           |
| 60.0                   | 5704             | 1.95           | <b>868A2092</b> | 72900           |
| 58.0                   | 5888             | 1.06           | 867A2494        | 51215           |
| 56.6                   | 6043             | 1.76           | 868A2494        | 71531           |
| 54.4                   | 6285             | 1.77           | <b>868A2192</b> | 74046           |
| 52.2                   | 6522             | 1.53           | 868A2594        | 74395           |
| 52.0                   | 6556             | 0.95           | 867A2594        | 52800           |
| 49.2                   | 6931             | 0.92           | <b>867A2292</b> | 50450           |
| 46.3                   | 7356             | 0.87           | 867A2694        | 53400           |
| 43.7                   | 7807             | 0.82           | <b>867A2392</b> | 50204           |
| 42.8                   | 7975             | 1.35           | 868A2694        | 73585           |
| 39.5                   | 8615             | 1.26           | 868A2794        | 73200           |
| 37.4                   | 9061             | 1.10           | 868A2894        | 80293           |
| 35.7                   | 9447             | 1.04           | 868A4194        | 65600           |
| 34.5                   | 9804             | 1.02           | 868A2994        | 80900           |
| 30.6                   | 10992            | 1.01           | 868A4294        | 65600           |
| 28.6                   | 11943            | 0.90           | <b>868A2692</b> | 69259           |
| 27.0                   | 12464            | 0.89           | 868A4394        | 65600           |
| 26.4                   | 12900            | 0.84           | <b>868A2792</b> | 67840           |

## 45.0 KW MOTOR

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 1023                   | 408              | 1.77           | 866A0195        | 17800           |
| 997                    | 419              | 1.37           | 865A0195        | 13100           |
| 732                    | 571              | 1.77           | 866A0295        | 19700           |
| 724                    | 578              | 1.18           | 865A0295        | 14400           |
| 673                    | 622              | 1.77           | 866A0395        | 20200           |
| 646                    | 649              | 1.11           | 865A0395        | 14800           |
| 593                    | 707              | 1.77           | 866A0495        | 21000           |
| 576                    | 729              | 1.04           | 865A0495        | 15300           |
| 511                    | 814              | 3.10           | 868A0595        | 50294           |
| 508                    | 822              | 2.21           | 867A0595        | 38925           |
| 497                    | 839              | 1.37           | 865A0595        | 16200           |
| 493                    | 843              | 1.77           | 866A0595        | 22300           |
| 463                    | 904              | 2.21           | 867A0695        | 39925           |
| 455                    | 924              | 1.70           | 866A0695        | 22600           |
| 454                    | 917              | 3.10           | 868A0695        | 51979           |
| 447                    | 940              | 0.91           | 865A0695        | 16400           |
| 421                    | 996              | 1.58           | 866A0795        | 23100           |
| 405                    | 1026             | 2.21           | 867A0795        | 41475           |
| 400                    | 1050             | 0.84           | 865A0795        | 16900           |
| 386                    | 1075             | 3.10           | 868A0795        | 54449           |
| 366                    | 1140             | 2.21           | 867A0895        | 42625           |
| 366                    | 1140             | 3.10           | 868A0895        | 55249           |
| 361                    | 1161             | 1.18           | 865A0895        | 17300           |
| 353                    | 1182             | 1.77           | 866A0895        | 24600           |
| 341                    | 1218             | 2.07           | <b>868A0593</b> | 56480           |
| 334                    | 1254             | 2.21           | 867A0995        | 43700           |
| 325                    | 1282             | 3.10           | 868A0995        | 57218           |
| 325                    | 1290             | 1.77           | 866A0995        | 24900           |
| 322                    | 1305             | 1.11           | 865A0995        | 17500           |
| 309                    | 1353             | 1.48           | <b>867A0693</b> | 43983           |
| 303                    | 1373             | 2.07           | <b>868A0693</b> | 57920           |
| 299                    | 1397             | 1.77           | 866A1095        | 25100           |
| 293                    | 1426             | 2.21           | 867A1095        | 44350           |
| 291                    | 1435             | 1.18           | 865A1095        | 17700           |
| 277                    | 1505             | 3.10           | 868A1095        | 58588           |
| 275                    | 1522             | 1.77           | 866A1195        | 25300           |
| 266                    | 1567             | 2.21           | 867A1195        | 44800           |
| 259                    | 1614             | 1.11           | 865A1195        | 17700           |
| 258                    | 1610             | 2.07           | <b>868A0793</b> | 59000           |
| 246                    | 1692             | 3.10           | 868A1195        | 59358           |
| 238                    | 1762             | 2.21           | 867A1295        | 45250           |
| 225                    | 1850             | 3.10           | 868A1295        | 59943           |
| 223                    | 1877             | 1.48           | <b>867A0993</b> | 45420           |
| 223                    | 1880             | 0.91           | 865A1295        | 17400           |
| 219                    | 1905             | 1.65           | 866A1295        | 25700           |
| 214                    | 1953             | 2.21           | 867A1395        | 45700           |
| 203                    | 2056             | 1.58           | 866A1395        | 25800           |
| 203                    | 2054             | 3.10           | 868A1395        | 60628           |
| 199                    | 2110             | 0.84           | 865A1395        | 16500           |
| 190                    | 2198             | 2.21           | 867A1495        | 46400           |
| 186                    | 2249             | 1.49           | 866A1495        | 26200           |
| 185                    | 2253             | 2.07           | <b>868A1093</b> | 61160           |
| 179                    | 2329             | 0.90           | 865A1495        | 16400           |
| 172                    | 2425             | 1.42           | 866A1595        | 26400           |
| 171                    | 2434             | 2.21           | 867A1595        | 46875           |
| 170                    | 2444             | 3.10           | 868A1495        | 62052           |
| 164                    | 2534             | 2.07           | <b>868A1193</b> | 62300           |
| 161                    | 2609             | 0.84           | 865A1595        | 15200           |
| 159                    | 2639             | 1.48           | <b>867A1293</b> | 47267           |
| 153                    | 2712             | 3.10           | 868A1595        | 63022           |
| 149                    | 2802             | 2.21           | 867A1695        | 47475           |
| 147                    | 2842             | 3.10           | 868A1695        | 63507           |
| 139                    | 3004             | 1.23           | 866A1695        | 26800           |
| 135                    | 3075             | 2.07           | <b>868A1393</b> | 64160           |
| 132                    | 3177             | 1.87           | 867A1795        | 47863           |
| 129                    | 3223             | 3.10           | 868A1795        | 64762           |
| 127                    | 3292             | 1.48           | <b>867A1493</b> | 48586           |
| 123                    | 3397             | 1.11           | 866A1795        | 27100           |
| 119                    | 3498             | 1.82           | 867A1895        | 48391           |
| 118                    | 3541             | 1.10           | 866A1895        | 27300           |
| 114                    | 3645             | 1.48           | <b>867A1593</b> | 48660           |
| 111                    | 3729             | 2.74           | 868A1895        | 66171           |
| 105                    | 3958             | 1.59           | 867A1995        | 47540           |
| 104                    | 3999             | 1.02           | 866A1995        | 27500           |
| 99.6                   | 4196             | 1.48           | <b>867A1693</b> | 48380           |
| 97.5                   | 4260             | 2.45           | 868A1995        | 67275           |
| 92.4                   | 4511             | 1.38           | 867A2095        | 48275           |

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 89.8                   | 4646             | 0.82           | 866A2095        | 24900           |
| 89.8                   | 4632             | 2.40           | 868A2095        | 68275           |
| 88.0                   | 4758             | 1.25           | <b>867A1793</b> | 48173           |
| 86.2                   | 4826             | 2.07           | <b>868A1793</b> | 68360           |
| 82.0                   | 5089             | 1.22           | 867A2195        | 47925           |
| 81.4                   | 5104             | 2.18           | 868A2195        | 68850           |
| 79.5                   | 5238             | 1.22           | <b>867A1893</b> | 48175           |
| 73.9                   | 5584             | 1.83           | <b>868A1893</b> | 69500           |
| 73.7                   | 5629             | 1.13           | 867A2295        | 47850           |
| 70.2                   | 5927             | 1.07           | <b>867A1993</b> | 47600           |
| 67.8                   | 6114             | 1.74           | 868A2295        | 68830           |
| 65.4                   | 6341             | 1.01           | 867A2395        | 47493           |
| 65.1                   | 6379             | 1.64           | <b>868A1993</b> | 69848           |
| 61.7                   | 6755             | 0.92           | <b>867A2093</b> | 47025           |
| 61.5                   | 6758             | 1.60           | 868A2395        | 69020           |
| 60.0                   | 6937             | 1.61           | <b>868A2093</b> | 71566           |
| 58.0                   | 7161             | 0.87           | 867A2495        | 48500           |
| 56.6                   | 7350             | 1.45           | 868A2495        | 69167           |
| 54.4                   | 7643             | 1.46           | <b>868A2193</b> | 72336           |
| 52.2                   | 7932             | 1.26           | 868A2595        | 72575           |
| 42.8                   | 9700             | 1.11           | 868A2695        | 70925           |
| 39.5                   | 10477            | 1.04           | 868A2795        | 70400           |
| 37.4                   | 11021            | 0.91           | 868A2895        | 80200           |

## Series M Gearboxes : Motorised selection

**Bold print indicates a 6 pole motor is used**

Double reduction (see pages 199-200 for dimensions)

Triple reduction (see pages 199-200 for dimensions)

Quadruple reduction (see pages 201-202 for dimensions)

**55.0 KW MOTOR**

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection  | Overhung Load N |
|------------------------|------------------|----------------|-----------------|-----------------|
| 511                    | 995              | 2.54           | 868A0596        | 50062           |
| 508                    | 1005             | 1.81           | 867A0596        | 38741           |
| 463                    | 1105             | 1.81           | 867A0696        | 39741           |
| 454                    | 1121             | 2.54           | 868A0696        | 51828           |
| 405                    | 1255             | 1.81           | 867A0796        | 41258           |
| 386                    | 1314             | 2.54           | 868A0796        | 54260           |
| 366                    | 1393             | 1.81           | 867A0896        | 42375           |
| 366                    | 1393             | 2.54           | 868A0896        | 55060           |
| 341                    | 1489             | 1.70           | <b>868A0997</b> | 56200           |
| 334                    | 1532             | 1.81           | 867A0996        | 43433           |
| 325                    | 1567             | 2.54           | 868A0996        | 56992           |
| 309                    | 1654             | 1.21           | <b>867A0697</b> | 43600           |
| 303                    | 1678             | 1.70           | <b>868A0697</b> | 57600           |
| 293                    | 1743             | 1.81           | 867A1096        | 44050           |
| 277                    | 1839             | 2.54           | 868A1096        | 58324           |
| 266                    | 1915             | 1.81           | 867A1196        | 44466           |
| 258                    | 1968             | 1.70           | <b>868A0797</b> | 58600           |
| 246                    | 2068             | 2.54           | 868A1196        | 59056           |
| 238                    | 2154             | 1.81           | 867A1296        | 44883           |
| 225                    | 2261             | 2.54           | 868A1296        | 59622           |
| 223                    | 2294             | 1.21           | <b>867A0997</b> | 44900           |
| 214                    | 2387             | 1.81           | 867A1396        | 45300           |
| 203                    | 2510             | 2.54           | 868A1396        | 60288           |
| 190                    | 2687             | 1.81           | 867A1496        | 45933           |
| 185                    | 2754             | 1.70           | <b>868A1097</b> | 60600           |
| 171                    | 2975             | 1.81           | 867A1596        | 46258           |
| 170                    | 2988             | 2.54           | 868A1496        | 61618           |
| 164                    | 3097             | 1.70           | <b>868A1197</b> | 61700           |
| 159                    | 3225             | 1.21           | <b>867A1297</b> | 46500           |
| 153                    | 3315             | 2.54           | 868A1596        | 62550           |
| 149                    | 3425             | 1.81           | 867A1696        | 46591           |
| 147                    | 3473             | 2.54           | 868A1696        | 63026           |
| 135                    | 3759             | 1.70           | <b>868A1397</b> | 63400           |
| 132                    | 3883             | 1.53           | 867A1796        | 46760           |
| 129                    | 3939             | 2.54           | 868A1796        | 64215           |
| 127                    | 4023             | 1.21           | <b>867A1497</b> | 47600           |
| 119                    | 4276             | 1.49           | 867A1896        | 47126           |
| 114                    | 4456             | 1.21           | <b>867A1597</b> | 47400           |
| 111                    | 4558             | 2.24           | 868A1896        | 65511           |
| 105                    | 4838             | 1.31           | 867A1996        | 45593           |
| 99.6                   | 5129             | 1.21           | <b>867A1697</b> | 46600           |
| 97.5                   | 5207             | 2.00           | 868A1996        | 66391           |
| 92.4                   | 5513             | 1.13           | 867A2096        | 46300           |
| 89.8                   | 5662             | 1.97           | 868A2096        | 67391           |
| 88.0                   | 5815             | 1.03           | <b>867A1797</b> | 45900           |
| 86.2                   | 5898             | 1.70           | <b>868A1797</b> | 67200           |
| 82.0                   | 6219             | 1.00           | 867A2196        | 45500           |
| 81.4                   | 6239             | 1.78           | 868A2196        | 67683           |
| 79.5                   | 6403             | 1.00           | <b>867A1897</b> | 45700           |
| 73.9                   | 6825             | 1.50           | <b>868A1897</b> | 68100           |
| 73.7                   | 6880             | 0.93           | 867A2296        | 45100           |
| 70.2                   | 7244             | 0.87           | <b>867A1997</b> | 44600           |
| 67.8                   | 7472             | 1.42           | 868A2296        | 66757           |
| 65.4                   | 7750             | 0.82           | 867A2396        | 44400           |
| 65.1                   | 7797             | 1.34           | <b>868A1997</b> | 68000           |
| 61.5                   | 8259             | 1.31           | 868A2396        | 66674           |
| 60.0                   | 8478             | 1.31           | <b>868A2097</b> | 69900           |
| 56.6                   | 8983             | 1.18           | 868A2496        | 66211           |
| 54.4                   | 9342             | 1.19           | <b>868A2197</b> | 70200           |
| 52.2                   | 9695             | 1.03           | 868A2596        | 70300           |
| 42.8                   | 11855            | 0.91           | 868A2696        | 67600           |
| 39.5                   | 12806            | 0.85           | 868A2796        | 66900           |

**75.0 KW MOTOR**

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection | Overhung Load N |
|------------------------|------------------|----------------|----------------|-----------------|
| 514                    | 1347             | 1.88           | 868A0598       | 49798           |
| 511                    | 1361             | 1.34           | 867A0598       | 38375           |
| 466                    | 1496             | 1.34           | 867A0698       | 39375           |
| 457                    | 1518             | 1.88           | 868A0698       | 51526           |
| 408                    | 1699             | 1.34           | 867A0798       | 40825           |
| 389                    | 1780             | 1.88           | 868A0798       | 53883           |
| 369                    | 1887             | 1.34           | 867A0898       | 41875           |
| 369                    | 1887             | 1.88           | 868A0898       | 54683           |
| 336                    | 2075             | 1.34           | 867A0998       | 42900           |
| 327                    | 2122             | 1.88           | 868A0998       | 56539           |
| 295                    | 2361             | 1.34           | 867A1098       | 43450           |
| 278                    | 2491             | 1.88           | 868A1098       | 57796           |
| 268                    | 2594             | 1.34           | 867A1198       | 43800           |
| 247                    | 2801             | 1.88           | 868A1198       | 58452           |
| 239                    | 2917             | 1.34           | 867A1298       | 44150           |
| 227                    | 3063             | 1.88           | 868A1298       | 58981           |
| 216                    | 3233             | 1.34           | 867A1398       | 44500           |
| 204                    | 3400             | 1.88           | 868A1398       | 59609           |
| 191                    | 3639             | 1.34           | 867A1498       | 45000           |
| 172                    | 4030             | 1.34           | 867A1598       | 45025           |
| 171                    | 4046             | 1.88           | 868A1498       | 60750           |
| 154                    | 4490             | 1.88           | 868A1598       | 61607           |
| 150                    | 4639             | 1.34           | 867A1698       | 44825           |
| 148                    | 4704             | 1.88           | 868A1698       | 62035           |
| 133                    | 5260             | 1.13           | 867A1798       | 44554           |
| 130                    | 5335             | 1.88           | 868A1798       | 63120           |
| 120                    | 5791             | 1.10           | 867A1898       | 44597           |
| 111                    | 6173             | 1.66           | 868A1898       | 64190           |
| 106                    | 6552             | 0.96           | 867A1998       | 41700           |
| 98.2                   | 7052             | 1.48           | 868A1998       | 64625           |
| 90.4                   | 7669             | 1.45           | 868A2098       | 65625           |
| 82.0                   | 8450             | 1.32           | 868A2198       | 65350           |
| 68.3                   | 10121            | 1.05           | 868A2298       | 62610           |
| 62.0                   | 11187            | 0.97           | 868A2398       | 62003           |
| 57.0                   | 12167            | 0.88           | 868A2498       | 60300           |

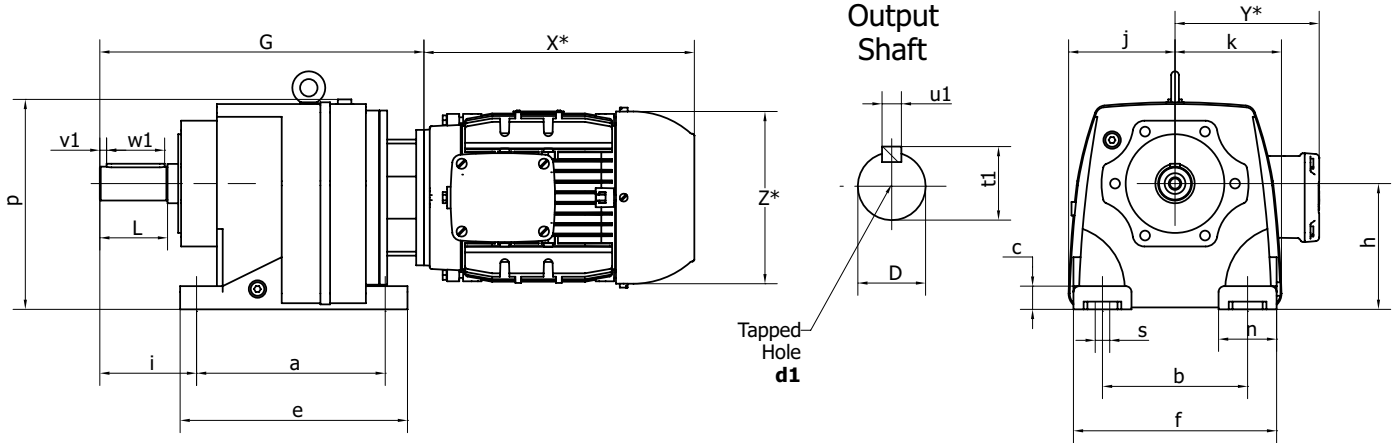
**90.0 KW MOTOR**

| Nominal Output Rev/Min | Output Torque Nm | Service Factor | Unit Selection | Overhung Load N |
|------------------------|------------------|----------------|----------------|-----------------|
| 514                    | 1616             | 1.56           | 868A0599       | 49600           |
| 511                    | 1633             | 1.11           | 867A0599       | 38100           |
| 466                    | 1795             | 1.11           | 867A0699       | 39100           |
| 457                    | 1822             | 1.56           | 868A0699       | 51300           |
| 408                    | 2039             | 1.11           | 867A0799       | 40500           |
| 389                    | 2136             | 1.56           | 868A0799       | 53600           |
| 369                    | 2265             | 1.11           | 867A0899       | 41500           |
| 369                    | 2264             | 1.56           | 868A0899       | 54400           |
| 336                    | 2490             | 1.11           | 867A0999       | 42500           |
| 327                    | 2547             | 1.56           | 868A0999       | 56200           |
| 295                    | 2833             | 1.11           | 867A1099       | 43000           |
| 278                    | 2989             | 1.56           | 868A1099       | 57400           |
| 268                    | 3113             | 1.11           | 867A1199       | 43300           |
| 247                    | 3361             | 1.56           | 868A1199       | 58000           |
| 239                    | 3501             | 1.11           | 867A1299       | 43600           |
| 227                    | 3676             | 1.56           | 868A1299       | 58500           |
| 216                    | 3880             | 1.11           | 867A1399       | 43900           |
| 204                    | 4080             | 1.56           | 868A1399       | 59100           |
| 191                    | 4367             | 1.11           | 867A1499       | 44300           |
| 172                    | 4836             | 1.11           | 867A1599       | 44100           |
| 171                    | 4856             | 1.56           | 868A1499       | 60200           |
| 154                    | 5388             | 1.56           | 868A1599       | 60900           |
| 150                    | 5567             | 1.11           | 867A1699       | 43500           |
| 148                    | 5645             | 1.56           | 868A1699       | 61300           |
| 133                    | 6312             | 0.95           | 867A1799       | 42900           |
| 130                    | 6402             | 1.56           | 868A1799       | 62300           |
| 120                    | 6949             | 0.92           | 867A1899       | 42700           |
| 111                    | 7408             | 1.38           | 868A1899       | 63200           |
| 98.2                   | 8462             | 1.23           | 868A1999       | 63300           |
| 90.4                   | 9202             | 1.21           | 868A2099       | 64300           |
| 82.0                   | 10140            | 1.10           | 868A2199       | 63600           |
| 68.3                   | 12145            | 0.88           | 868A2299       | 59500           |
| 62.0                   | 13424            | 0.81           | 868A2399       | 58500           |



# Series M Gearboxes : Dimensions Motorised

## Foot Mounted Motorised Double/Triple Reduction



| Unit Size | a   | b   | c  | e   | f   | h** | i   | j   | k   | p   | SHAFT DIMENSIONS |     |       |    |    |     |                      |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-------|----|----|-----|----------------------|
|           |     |     |    |     |     |     |     |     |     |     | D                | L   | t1    | u1 | v1 | w1  | d1                   |
| 860       | 110 | 110 | 12 | 131 | 135 | 75  | 58  | 76  | 76  | 149 | Ø20 k6           | 40  | 22.5  | 6  | 4  | 32  | M6 x 1.0 x 16 deep   |
| 801       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 180 | Ø25 k6           | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 861       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 180 | Ø25 k6           | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 802       | 165 | 135 | 20 | 200 | 190 | 115 | 90  | 97  | 107 | 208 | Ø30 k6           | 60  | 33.0  | 8  | 4  | 50  | M10 x 1.5 x 22 deep  |
| 862       | 165 | 135 | 20 | 200 | 190 | 115 | 100 | 97  | 107 | 208 | Ø35 k6           | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 803       | 195 | 150 | 24 | 235 | 210 | 130 | 100 | 110 | 110 | 214 | Ø35 k6           | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 863       | 205 | 170 | 25 | 245 | 230 | 140 | 115 | 119 | 133 | 250 | Ø40 k6           | 80  | 43.0  | 12 | 5  | 70  | M16 x 2.0 x 36 deep  |
| 864       | 260 | 215 | 35 | 310 | 290 | 180 | 140 | 167 | 153 | 310 | Ø50 k6           | 100 | 53.5  | 14 | 10 | 80  | M16 x 2.0 x 36 deep  |
| 865       | 310 | 250 | 40 | 365 | 340 | 225 | 160 | 200 | 172 | 394 | Ø60 m6           | 120 | 64.0  | 18 | 10 | 100 | M20 x 2.5 x 42 deep  |
| 866       | 370 | 290 | 45 | 440 | 400 | 250 | 185 | 225 | 203 | 446 | Ø70 m6           | 140 | 74.5  | 20 | 15 | 110 | M20 x 2.5 x 42 deep  |
| 867       | 410 | 340 | 50 | 490 | 450 | 265 | 220 | 242 | 228 | 483 | Ø90 m6           | 170 | 95.0  | 25 | 15 | 140 | M24 x 3.0 x 50 deep  |
| 868       | 500 | 380 | 50 | 590 | 530 | 300 | 260 | 278 | 268 | 551 | Ø100 m6          | 210 | 106.0 | 28 | 15 | 180 | M24 x 3.0 x 50 deep  |

### G Dimension / Weight (excluding motor)

| Unit Size |    | Motor Frame Size |     |     |     |     |     |     |     |     |     |     |      | Triple + |     |
|-----------|----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----------|-----|
|           |    | 63               | 71  | 80  | 90  | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250  |          | 280 |
| 860       | G  | 209              | 213 | 226 | 236 | 244 | 244 | -   | -   | -   | -   | -   | -    | -        | 15  |
|           | kg | 8.9              | 8.5 | 9   | 10  | 12  | 12  | -   | -   | -   | -   | -   | -    | -        | 2.5 |
| 801       | G  | 240              | 244 | 257 | 267 | 275 | 275 | -   | -   | -   | -   | -   | -    | -        | 13  |
|           | kg | 12               | 12  | 13  | 13  | 15  | 15  | -   | -   | -   | -   | -   | -    | -        | 2.5 |
| 861       | G  | 240              | 244 | 257 | 267 | 275 | 275 | -   | -   | -   | -   | -   | -    | -        | 13  |
|           | kg | 12               | 12  | 13  | 13  | 15  | 15  | -   | -   | -   | -   | -   | -    | -        | 2.5 |
| 802       | G  | 270              | 276 | 294 | 304 | 331 | 331 | -   | -   | -   | -   | -   | -    | -        | 23  |
|           | kg | 20               | 20  | 21  | 22  | 25  | 25  | 27  | -   | -   | -   | -   | -    | -        | 2.5 |
| 862       | G  | 280              | 286 | 304 | 314 | 341 | 341 | -   | -   | -   | -   | -   | -    | -        | 23  |
|           | kg | 21               | 21  | 22  | 23  | 25  | 25  | 27  | -   | -   | -   | -   | -    | -        | 2.5 |
| 803       | G  | 301              | 307 | 325 | 335 | 362 | 362 | -   | -   | -   | -   | -   | -    | -        | 23  |
|           | kg | 26               | 26  | 27  | 28  | 31  | 31  | 33  | -   | -   | -   | -   | -    | -        | 2.5 |
| 863       | G  | -                | -   | 362 | 372 | 384 | 384 | 406 | 414 | -   | -   | -   | -    | -        | 30  |
|           | kg | -                | -   | 34  | 35  | 38  | 38  | 40  | 42  | -   | -   | -   | -    | -        | 5   |
| 864       | G  | -                | -   | 477 | 477 | 483 | 483 | 483 | 513 | -   | -   | -   | -    | -        | 40  |
|           | kg | -                | -   | 73  | 73  | 73  | 73  | 72  | 72  | -   | -   | -   | -    | -        | 5   |
| 865       | G  | -                | -   | 523 | 523 | 529 | 529 | 564 | 564 | 564 | 564 | 591 | -    | -        | 40  |
|           | kg | -                | -   | 117 | 117 | 117 | 117 | 124 | 124 | 124 | 138 | -   | -    | -        | 19  |
| 866       | G  | -                | -   | -   | -   | 596 | 596 | 596 | 631 | 631 | 631 | 658 | -    | -        | 57  |
|           | kg | -                | -   | -   | -   | 163 | 163 | 163 | 172 | 172 | 172 | 186 | -    | -        | 19  |
| 867       | G  | -                | -   | -   | -   | 717 | 717 | 717 | 710 | 710 | 710 | 737 | 909  | 909      | 62  |
|           | kg | -                | -   | -   | -   | 239 | 239 | 239 | 247 | 247 | 247 | 261 | 310  | 310      | 32  |
| 868       | G  | -                | -   | -   | -   | 832 | 832 | 832 | 825 | 825 | 825 | 852 | 1024 | 1024     | 72  |
|           | kg | -                | -   | -   | -   | 344 | 344 | 344 | 357 | 357 | 357 | 371 | 420  | 420      | 50  |

### Fixing Bolts

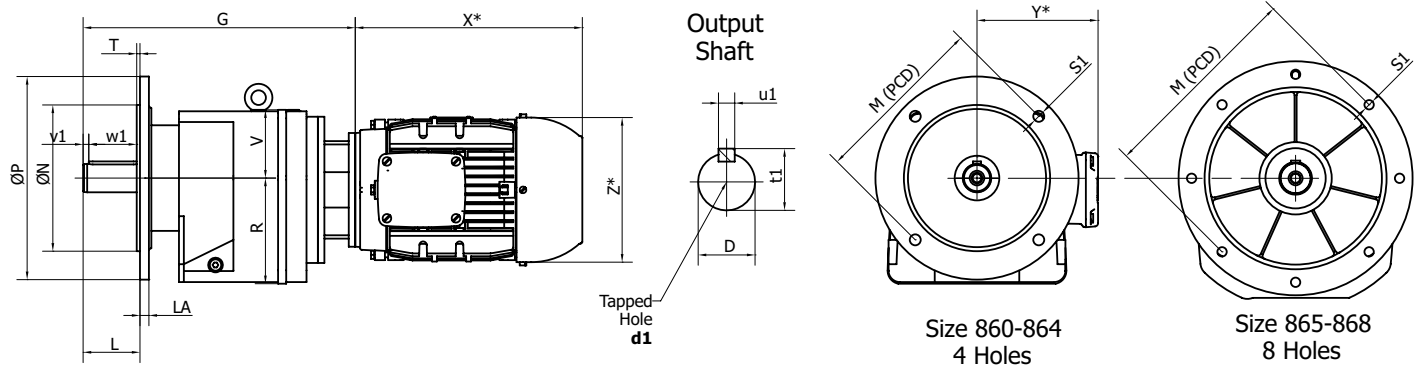
| Unit Size | "Fasteners & Tightening Torque" |                      |
|-----------|---------------------------------|----------------------|
| 860       | Size                            | 4 x M8 x 25mm long   |
|           | Nm                              | Tighten to - 25Nm    |
| 801       | Size                            | 4 x M8 x 30mm long   |
|           | Nm                              | Tighten to - 25Nm    |
| 861       | Size                            | 4 x M8 x 30mm long   |
|           | Nm                              | Tighten to - 25Nm    |
| 802       | Size                            | 4 x M12 x 40mm long  |
|           | Nm                              | Tighten to - 85Nm    |
| 862       | Size                            | 4 x M12 x 40mm long  |
|           | Nm                              | Tighten to - 85Nm    |
| 803       | Size                            | 4 x M12 x 40mm long  |
|           | Nm                              | Tighten to - 85Nm    |
| 863       | Size                            | 4 x M16 x 45mm long  |
|           | Nm                              | Tighten to - 200Nm   |
| 864       | Size                            | 4 x M16 x 60mm long  |
|           | Nm                              | Tighten to - 200Nm   |
| 865       | Size                            | 4 x M20 x 70mm long  |
|           | Nm                              | Tighten to - 350Nm   |
| 866       | Size                            | 4 x M24 x 80mm long  |
|           | Nm                              | Tighten to - 610Nm   |
| 867       | Size                            | 4 x M30 x 90mm long  |
|           | Nm                              | Tighten to - 1220Nm  |
| 868       | Size                            | 4 x M36 x 100mm long |
|           | Nm                              | Tighten to - 2150Nm  |

\* For Motor dimensions X,Y and Z - please refer to motor tables on page 314

\*\* The input on the 803 unit is 14.5mm lower than the output

# Series M Gearboxes : Dimensions motorised

## Flange Mounted Motorised Double/Triple Reduction

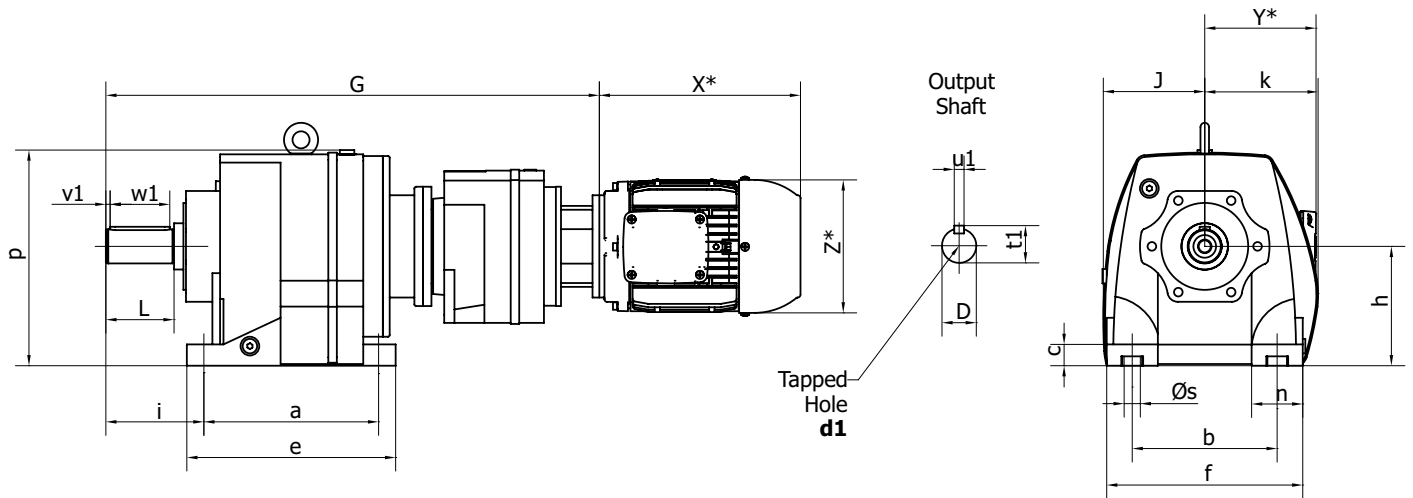


| Unit Size | R   | V   | G   | P   | FLANGE DIMENSIONS |     |     |      |    | SHAFT DIMENSIONS |     |       |    |    |     |                      |
|-----------|-----|-----|-----|-----|-------------------|-----|-----|------|----|------------------|-----|-------|----|----|-----|----------------------|
|           |     |     |     |     | N                 | T   | M   | S1   | LA | D                | L   | t1    | u1 | v1 | w1  | d1                   |
| 860       | 76  | 74  | 199 | 120 | 80                | 3.0 | 100 | 6.6  | 9  | Ø20 k6           | 40  | 22.5  | 6  | 4  | 32  | M6 x 1.0 x 16 deep   |
|           |     |     |     | 140 | 95                | 3.0 | 115 | 9.0  | 9  |                  |     |       |    |    |     |                      |
|           |     |     |     | 160 | 110               | 3.5 | 130 | 9.0  | 10 |                  |     |       |    |    |     |                      |
|           |     |     |     | 200 | 130               | 3.5 | 165 | 11.0 | 10 |                  |     |       |    |    |     |                      |
| 801       | 91  | 90  | 199 | 120 | 80                | 3.0 | 100 | 6.6  | 10 | Ø25 k6           | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
|           |     |     |     | 140 | 95                | 3.0 | 115 | 9.0  | 10 |                  |     |       |    |    |     |                      |
|           |     |     |     | 160 | 110               | 3.5 | 130 | 9.0  | 10 |                  |     |       |    |    |     |                      |
|           |     |     |     | 200 | 130               | 3.5 | 165 | 11.0 | 10 |                  |     |       |    |    |     |                      |
| 861       | 91  | 90  | 199 | 120 | 80                | 3.0 | 100 | 6.6  | 10 | Ø25 k6           | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
|           |     |     |     | 140 | 95                | 3.0 | 115 | 9.0  | 10 |                  |     |       |    |    |     |                      |
|           |     |     |     | 160 | 110               | 3.5 | 130 | 9.0  | 10 |                  |     |       |    |    |     |                      |
|           |     |     |     | 200 | 130               | 3.5 | 165 | 11.0 | 10 |                  |     |       |    |    |     |                      |
| 802       | 115 | 93  | 199 | 140 | 95                | 3.0 | 115 | 9.0  | 11 | Ø30 k6           | 60  | 33.0  | 8  | 4  | 50  | M10 x 1.5 x 22 deep  |
|           |     |     |     | 160 | 110               | 3.5 | 130 | 9.0  | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 200 | 130               | 3.5 | 165 | 11.0 | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 250 | 180               | 4.0 | 215 | 13.5 | 11 |                  |     |       |    |    |     |                      |
| 862       | 115 | 93  | 199 | 140 | 95                | 3.0 | 115 | 9.0  | 11 | Ø35 k6           | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
|           |     |     |     | 160 | 110               | 3.5 | 130 | 9.0  | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 200 | 130               | 3.5 | 165 | 11.0 | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 250 | 180               | 4.0 | 215 | 13.5 | 11 |                  |     |       |    |    |     |                      |
| 803       | 130 | 84  | 199 | 200 | 130               | 4.0 | 165 | 11.0 | 11 | Ø35 k6           | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
|           |     |     |     | 250 | 180               | 4.0 | 215 | 13.5 | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 300 | 230               | 4.0 | 265 | 13.5 | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 200 | 130               | 4.0 | 165 | 11.0 | 11 |                  |     |       |    |    |     |                      |
| 863       | 140 | 110 | 199 | 250 | 180               | 4.0 | 215 | 13.5 | 11 | Ø40 k6           | 80  | 43.0  | 12 | 5  | 70  | M16 x 2.0 x 36 deep  |
|           |     |     |     | 300 | 230               | 4.0 | 265 | 13.5 | 11 |                  |     |       |    |    |     |                      |
|           |     |     |     | 300 | 230               | 4.0 | 265 | 13.5 | 17 |                  |     |       |    |    |     |                      |
|           |     |     |     | 350 | 250               | 5.0 | 300 | 17.5 | 17 |                  |     |       |    |    |     |                      |
| 864       | 182 | 130 | 199 | 300 | 230               | 4.0 | 265 | 13.5 | 17 | Ø50 k6           | 100 | 53.5  | 14 | 10 | 80  | M16 x 2.0 x 36 deep  |
|           |     |     |     | 350 | 250               | 5.0 | 300 | 17.5 | 17 |                  |     |       |    |    |     |                      |
| 865       | 230 | 230 | 199 | 450 | 350               | 5.0 | 400 | 18.0 | 18 | Ø60 m6           | 120 | 64.0  | 18 | 10 | 100 | M20 x 2.5 x 42 deep  |
| 866       | 260 | 260 | 199 | 450 | 350               | 5.0 | 400 | 18.0 | 22 | Ø70 m6           | 140 | 74.5  | 20 | 15 | 110 | M20 x 2.5 x 42 deep  |
| 867       | 278 | 278 | 199 | 550 | 450               | 5.0 | 500 | 18.0 | 25 | Ø90 m6           | 170 | 95.0  | 25 | 15 | 140 | M24 x 3.0 x 50 deep  |
| 868       | 318 | 318 | 199 | 550 | 450               | 5.0 | 500 | 18.0 | 25 | Ø100 m6          | 210 | 106.0 | 28 | 15 | 180 | M24 x 3.0 x 50 deep  |

\*For motor dimensions X,Y & Z please refer to the motor tables on page 314

# Series M Gearboxes : Dimensions Motorised

## Foot Mounted Motorised Quadruple/Quintuple reduction



| Unit Size | a   | b   | c  | e   | f   | h** | i   | j   | k   | n   | p   | s  | Shaft Dimensions |     |       |    |    |     |                      |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|------------------|-----|-------|----|----|-----|----------------------|
|           |     |     |    |     |     |     |     |     |     |     |     |    | D                | L   | t1    | u1 | v1 | w1  | d1                   |
| 860       | 110 | 110 | 12 | 131 | 135 | 75  | 58  | 76  | 76  | 25  | 149 | 10 | Ø20 k6           | 40  | 22.5  | 6  | 4  | 32  | M6 x 1.0 x 16 deep   |
| 801       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 35  | 180 | 10 | Ø25 k6           | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 861       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 35  | 180 | 10 | Ø25 k6           | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 802       | 165 | 135 | 20 | 200 | 190 | 115 | 90  | 97  | 107 | 55  | 208 | 15 | Ø30 k6           | 60  | 33.0  | 8  | 4  | 50  | M10 x 1.5 x 22 deep  |
| 862       | 165 | 135 | 20 | 200 | 190 | 115 | 100 | 97  | 107 | 55  | 208 | 15 | Ø35 k6           | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 803       | 195 | 150 | 24 | 235 | 210 | 130 | 100 | 110 | 110 | 60  | 214 | 15 | Ø35 k6           | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 863       | 205 | 170 | 25 | 245 | 230 | 140 | 115 | 119 | 133 | 60  | 250 | 19 | Ø40 k6           | 80  | 43.0  | 12 | 5  | 70  | M16 x 2.0 x 36 deep  |
| 864       | 260 | 215 | 35 | 310 | 290 | 180 | 140 | 167 | 153 | 75  | 310 | 19 | Ø50 k6           | 100 | 53.5  | 14 | 10 | 80  | M16 x 2.0 x 36 deep  |
| 865       | 310 | 250 | 40 | 365 | 340 | 225 | 160 | 200 | 172 | 90  | 394 | 23 | Ø60 m6           | 120 | 64.0  | 18 | 10 | 100 | M20 x 2.5 x 42 deep  |
| 866       | 370 | 290 | 45 | 440 | 400 | 250 | 185 | 225 | 203 | 110 | 446 | 27 | Ø70 m6           | 140 | 74.5  | 20 | 15 | 110 | M20 x 2.5 x 42 deep  |
| 867       | 410 | 340 | 50 | 490 | 450 | 265 | 220 | 242 | 228 | 110 | 483 | 34 | Ø90 m6           | 170 | 95.0  | 25 | 15 | 140 | M24 x 3.0 x 50 deep  |
| 868       | 500 | 380 | 50 | 590 | 530 | 300 | 260 | 278 | 268 | 150 | 551 | 41 | Ø100 m6          | 210 | 106.0 | 28 | 15 | 180 | M24 x 3.0 x 50 deep  |

### G Dimension/Weight (excluding motor)

| Unit Size |    | Motor Frame Size |     |     |     |     |     |     |     |     |     |     | Quint + |      |     |
|-----------|----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|------|-----|
|           |    | 63               | 71  | 80  | 90  | 100 | 112 | 132 | 160 | 180 | 200 | 225 |         | 250  | 280 |
| 860       | G  | 209              | 213 | 226 | 236 | 244 | 244 | -   | -   | -   | -   | -   | -       | -    | 15  |
|           | kg | 8.9              | 8.5 | 9   | 10  | 12  | 12  | -   | -   | -   | -   | -   | -       | -    | 2.5 |
| 801       | G  | 240              | 244 | 257 | 267 | 275 | 275 | -   | -   | -   | -   | -   | -       | -    | 13  |
|           | kg | 12               | 12  | 13  | 13  | 15  | 15  | -   | -   | -   | -   | -   | -       | -    | 2.5 |
| 861       | G  | 240              | 244 | 257 | 267 | 275 | 275 | -   | -   | -   | -   | -   | -       | -    | 13  |
|           | kg | 12               | 12  | 13  | 13  | 15  | 15  | -   | -   | -   | -   | -   | -       | -    | 2.5 |
| 802       | G  | 270              | 276 | 294 | 304 | 331 | 331 | 331 | -   | -   | -   | -   | -       | -    | 23  |
|           | kg | 20               | 20  | 21  | 22  | 25  | 25  | 27  | -   | -   | -   | -   | -       | -    | 2.5 |
| 862       | G  | 280              | 286 | 304 | 314 | 341 | 341 | 341 | -   | -   | -   | -   | -       | -    | 23  |
|           | kg | 21               | 21  | 22  | 23  | 25  | 25  | 27  | -   | -   | -   | -   | -       | -    | 2.5 |
| 803       | G  | 301              | 307 | 325 | 335 | 362 | 362 | 362 | -   | -   | -   | -   | -       | -    | 23  |
|           | kg | 26               | 26  | 27  | 28  | 31  | 31  | 33  | -   | -   | -   | -   | -       | -    | 2.5 |
| 863       | G  | -                | -   | 362 | 372 | 384 | 384 | 406 | 414 | -   | -   | -   | -       | -    | 30  |
|           | kg | -                | -   | 34  | 35  | 38  | 38  | 40  | 42  | -   | -   | -   | -       | -    | 5   |
| 864       | G  | -                | -   | 477 | 477 | 483 | 483 | 483 | 513 | -   | -   | -   | -       | -    | 40  |
|           | kg | -                | -   | 73  | 73  | 73  | 73  | 72  | 72  | -   | -   | -   | -       | -    | 5   |
| 865       | G  | -                | -   | 523 | 523 | 529 | 529 | 564 | 564 | 564 | 564 | 591 | -       | -    | 40  |
|           | kg | -                | -   | 117 | 117 | 117 | 117 | 124 | 124 | 124 | 138 | -   | -       | -    | 19  |
| 866       | G  | -                | -   | -   | -   | 596 | 596 | 631 | 631 | 631 | 658 | -   | -       | -    | 57  |
|           | kg | -                | -   | -   | -   | 163 | 163 | 163 | 172 | 172 | 172 | 186 | -       | -    | 19  |
| 867       | G  | -                | -   | -   | -   | 717 | 717 | 717 | 710 | 710 | 710 | 737 | 909     | 909  | 62  |
|           | kg | -                | -   | -   | -   | 239 | 239 | 239 | 247 | 247 | 247 | 261 | 310     | 310  | 32  |
| 868       | G  | -                | -   | -   | -   | 832 | 832 | 832 | 825 | 825 | 825 | 852 | 1024    | 1024 | 72  |
|           | kg | -                | -   | -   | -   | 344 | 344 | 344 | 357 | 357 | 357 | 371 | 420     | 420  | 50  |

### Fixing Bolts

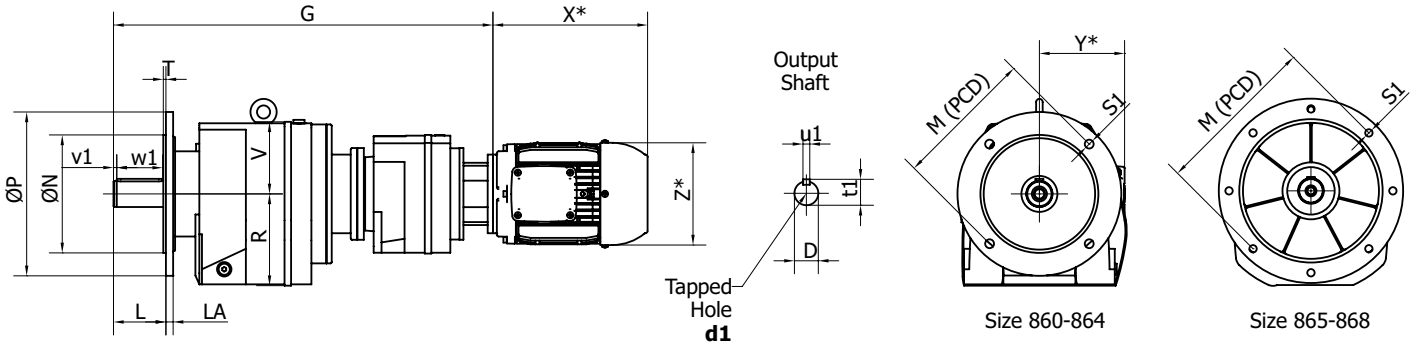
| Unit Size | Fasteners & Tightening Torque |
|-----------|-------------------------------|
| 860       | Size 4 x M8 x 25mm long       |
|           | Nm Tighten to - 25Nm          |
| 801       | Size 4 x M8 x 30mm long       |
|           | Nm Tighten to - 25Nm          |
| 861       | Size 4 x M8 x 30mm long       |
|           | Nm Tighten to - 25Nm          |
| 802       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 862       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 803       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 863       | Size 4 x M16 x 45mm long      |
|           | Nm Tighten to - 200Nm         |
| 864       | Size 4 x M16 x 60mm long      |
|           | Nm Tighten to - 200Nm         |
| 865       | Size 4 x M20 x 70mm long      |
|           | Nm Tighten to - 350Nm         |
| 866       | Size 4 x M24 x 80mm long      |
|           | Nm Tighten to - 610Nm         |
| 867       | Size 4 x M30 x 90mm long      |
|           | Nm Tighten to - 1220Nm        |
| 868       | Size 4 x M36 x 100mm long     |
|           | Nm Tighten to - 2150Nm        |

\* For Motor dimensions X,Y and Z - please refer to motor tables on page 314

\*\* The input on the 803 unit is 14.5mm lower than the output

Series M Gearboxes : Dimensions motorised

Flange Mounted Motorised  
Quadruple/Quintuple Reduction



| Unit Size | R   | V   | G  | P   | Flange Dimensions |     |      |      |         | Shaft Dimensions |       |      |    |     |                      |                     |
|-----------|-----|-----|--|-----|-------------------|-----|------|------|---------|------------------|-------|------|----|-----|----------------------|---------------------|
|           |     |     |  |     | N                 | T   | M    | S1   | LA      | D                | L     | t1   | u1 | v1  | w1                   | d1                  |
| 860       | 76  | 74  | FOR 'G' DIMENSION AND WEIGHT PLEASE REFER TO TABLE ON PAGE 201 | 120 | 80                | 3.0 | 100  | 6.6  | 9       | Ø20 k6           | 40    | 22.5 | 6  | 4   | 32                   | M6 x 1.0 x 16 deep  |
|           |     |     |  | 140 | 95                | 3.0 | 115  | 9.0  | 9       |                  |       |      |    |     |                      |                     |
|           |     |     |  | 160 | 110               | 3.5 | 130  | 9.0  | 10      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 200 | 130               | 3.5 | 165  | 11.0 | 10      |                  |       |      |    |     |                      |                     |
| 801       | 91  | 90  |  | 120 | 80                | 3.0 | 100  | 6.6  | 10      | Ø25 k6           | 50    | 28.0 | 8  | 4   | 40                   | M10 x 1.5 x 22 deep |
|           |     |     |  | 140 | 95                | 3.0 | 115  | 9.0  | 10      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 160 | 110               | 3.5 | 130  | 9.0  | 10      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 200 | 130               | 3.5 | 165  | 11.0 | 10      |                  |       |      |    |     |                      |                     |
| 861       | 91  | 90  |  | 120 | 80                | 3.0 | 100  | 6.6  | 10      | Ø25 k6           | 50    | 28.0 | 8  | 4   | 40                   | M10 x 1.5 x 22 deep |
|           |     |     |  | 140 | 95                | 3.0 | 115  | 9.0  | 10      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 160 | 110               | 3.5 | 130  | 9.0  | 10      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 200 | 130               | 3.5 | 165  | 11.0 | 10      |                  |       |      |    |     |                      |                     |
| 802       | 115 | 93  |  | 140 | 95                | 3.0 | 115  | 9.0  | 11      | Ø30 k6           | 60    | 33.0 | 8  | 4   | 50                   | M10 x 1.5 x 22 deep |
|           |     |     |  | 160 | 110               | 3.5 | 130  | 9.0  | 11      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 200 | 130               | 3.5 | 165  | 11.0 | 11      |                  |       |      |    |     |                      |                     |
|           |     |     |  | 250 | 180               | 4.0 | 215  | 13.5 | 11      |                  |       |      |    |     |                      |                     |
| 862       | 115 | 93  | 140  | 95  | 3.0               | 115 | 9.0  | 11   | Ø35 k6  | 70               | 38.0  | 10   | 7  | 60  | M12 x 1.75 x 28 deep |                     |
|           |     |     | 160  | 110 | 3.5               | 130 | 9.0  | 11   |         |                  |       |      |    |     |                      |                     |
|           |     |     | 200  | 130 | 3.5               | 165 | 11.0 | 11   |         |                  |       |      |    |     |                      |                     |
|           |     |     | 250  | 180 | 4.0               | 215 | 13.5 | 11   |         |                  |       |      |    |     |                      |                     |
| 803       | 130 | 84  | 200  | 130 | 4.0               | 165 | 11.0 | 11   | Ø35 k6  | 70               | 38.0  | 10   | 7  | 60  | M12 x 1.75 x 28 deep |                     |
|           |     |     | 250  | 180 | 4.0               | 215 | 13.5 | 11   |         |                  |       |      |    |     |                      |                     |
|           |     |     | 300  | 230 | 4.0               | 265 | 13.5 | 11   |         |                  |       |      |    |     |                      |                     |
|           |     |     | 200  | 130 | 4.0               | 165 | 11.0 | 11   |         |                  |       |      |    |     |                      |                     |
| 863       | 140 | 110 | 250  | 180 | 4.0               | 215 | 13.5 | 11   | Ø40 k6  | 80               | 43.0  | 12   | 5  | 70  | M16 x 2.0 x 36 deep  |                     |
|           |     |     | 300  | 230 | 4.0               | 265 | 13.5 | 11   |         |                  |       |      |    |     |                      |                     |
|           |     |     | 300  | 230 | 4.0               | 265 | 13.5 | 17   |         |                  |       |      |    |     |                      |                     |
| 864       | 182 | 130 | 350  | 250 | 5.0               | 300 | 17.5 | 17   | Ø50 k6  | 100              | 53.5  | 14   | 10 | 80  | M16 x 2.0 x 36 deep  |                     |
| 865       | 230 | 230 | 450  | 350 | 5.0               | 400 | 18.0 | 18   | Ø60 m6  | 120              | 64.0  | 18   | 10 | 100 | M20 x 2.5 x 42 deep  |                     |
| 866       | 260 | 260 | 450  | 350 | 5.0               | 400 | 18.0 | 22   | Ø70 m6  | 140              | 74.5  | 20   | 15 | 110 | M20 x 2.5 x 42 deep  |                     |
| 867       | 278 | 278 | 550  | 450 | 5.0               | 500 | 18.0 | 25   | Ø90 m6  | 170              | 95.0  | 25   | 15 | 140 | M24 x 3.0 x 50 deep  |                     |
| 868       | 318 | 318 | 550  | 450 | 5.0               | 500 | 18.0 | 25   | Ø100 m6 | 210              | 106.0 | 28   | 15 | 180 | M24 x 3.0 x 50 deep  |                     |



## Series M Gearboxes : Non motorised selection

### SELECTION OF NON-MOTORISED REDUCER UNITS

#### (a) Service Factor

From Table 1 select the Mechanical Service Factor (Fm) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor Fm by Factor Fs from table 2.

#### (b) Power Required

Determine either the absorbed torque (Nm) or the input power (kW) required by the machine. The absorbed Torque can be calculated using the following formula:

$$M_2 = \frac{P_2 \times 9550}{n_2}$$

$M_2$  = required output torque (Nm)

$P_2$  = absorbed power (kW)

$n_2$  = machine speed (Rev/Min)

#### (c) Design Power

Multiply either the absorbed torque (Nm) or the power (kW) by the service factor determined in (a)

#### (d) Ratio Required

Divide the input shaft speed by the required output shaft speed to determine the gear ratio.

#### (e) Unit Selection

Refer to the gear ratio closest to the value determined in step (d).

Check in column 3 for the nearest input shaft speed, then read across the table at this speed until a unit is found with either an output torque or input power that equals or exceeds the design power value determined in step (c) above. Column 4 gives the approximate output shaft speed for the selected speed and ratio combination.

TABLE 1 – SERVICE FACTORS (Fm)

| Types of Driven Machine   | Operational Hours |         |         |
|---|-------------------|---------|---------|
|   | Under 3           | 3 to 10 | Over 10 |
| <b>Uniform Loads</b><br>Agitators and Mixers – liquid or semi-liquid<br>Blowers – centrifugal<br>Bottling Machines<br>Conveyors and Elevators – uniformly loaded<br>Cookers<br>Laundry Washing Machines – non-reversing<br>Line Shafts<br>Pumps – centrifugal and gear<br>Wire Drawing Machines   | 0.80              | 1.00    | 1.25    |
| <b>Moderate Shock Loads</b><br>Agitators and Mixers – variable density<br>Conveyors – not uniformly loaded<br>Cranes travel motion and hoisting<br>Drawbench<br>Feeders – pulsating load<br>Hoists<br>Kilns<br>Laundry Tumblers<br>Lifts<br>Pumps – reciprocating with 3 or more cylinders<br>Pump and Paper Making Machinery<br>Rubber Mixers and Calendars<br>Screens – rotary<br>Textile Machinery | 1.00              | 1.25    | 1.50    |
| <b>Heavy Shock Loads</b><br>Brick Presses<br>Briquetting Machines<br>Conveyors – reciprocating and shaker<br>Crushers<br>Feeders – reciprocating<br>Hammer Mills<br>Pumps – reciprocating, 1 or 2 cylinders<br>Rubber Masticators<br>Screens – vibrating  | 1.50              | 1.75    | 2.00    |

TABLE 2 - STARTING FACTOR (Fs)

|                  | Start/stops per hour |      |      |      |      |      |
|------------------|----------------------|------|------|------|------|------|
|                  | Up to 1              | 5    | 10   | 40   | 60   | >200 |
| <b>Factor Fs</b> | 1.00                 | 1.03 | 1.06 | 1.10 | 1.15 | 1.20 |

## Series M Gearboxes : Non motorised selection

## DOUBLE REDUCTION RATINGS SIZES 860, 801, 861, 802

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 860            |                  |                        | 801            |                  |                        | 861            |                  |                        | 802            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 09         | 3.6           | 2900                | 806                          | 3.97           | 47               | 0.98                   | 7.00           | 79               | 3.00                   | 8.45           | 96               | 2.05                   | 14.20          | 161              | 2.05                   |
|            |               | 450                 | 403                          | 2.49           | 59               | 0.98                   | 4.39           | 100              | 3.10                   | 5.18           | 118              | 2.30                   | 8.87           | 203              | 2.30                   |
|            |               | 960                 | 267                          | 1.89           | 68               | 0.98                   | 3.33           | 115              | 3.10                   | 3.88           | 134              | 2.30                   | 6.72           | 233              | 2.60                   |
|            |               | 725                 | 201                          | 1.53           | 73               | 0.98                   | 2.74           | 126              | 3.10                   | 3.18           | 146              | 2.30                   | 5.57           | 256              | 3.45                   |
| 10         | 5             | 2900                | 580                          | 3.34           | 54               | 0.98                   | 5.76           | 92               | 3.00                   | 6.87           | 110              | 2.05                   | 11.80          | 188              | 2.05                   |
|            |               | 1450                | 290                          | 2.09           | 68               | 0.98                   | 3.61           | 116              | 3.10                   | 4.22           | 135              | 2.30                   | 7.37           | 237              | 2.45                   |
|            |               | 960                 | 192                          | 1.55           | 76               | 0.98                   | 2.70           | 131              | 3.10                   | 3.16           | 153              | 2.30                   | 5.59           | 272              | 3.20                   |
|            |               | 725                 | 145                          | 1.22           | 79               | 1.00                   | 2.13           | 137              | 3.15                   | 2.59           | 167              | 2.30                   | 4.49           | 290              | 4.60                   |
| 11         | 5.6           | 2900                | 518                          | 3.10           | 57               | 0.98                   | 5.44           | 96               | 3.05                   | 6.47           | 114              | 2.05                   | 11.00          | 198              | 2.05                   |
|            |               | 1450                | 259                          | 1.95           | 71               | 0.98                   | 3.41           | 121              | 3.10                   | 3.97           | 140              | 2.30                   | 6.91           | 249              | 2.60                   |
|            |               | 960                 | 171                          | 1.41           | 78               | 1.00                   | 2.50           | 134              | 3.10                   | 2.97           | 159              | 2.30                   | 5.23           | 286              | 3.40                   |
|            |               | 725                 | 129                          | 1.11           | 82               | 1.02                   | 1.97           | 140              | 3.15                   | 2.44           | 173              | 2.30                   | 4.12           | 298              | 4.70                   |
| 12         | 6.3           | 2900                | 460                          | 2.87           | 60               | 0.98                   | 5.04           | 101              | 3.05                   | 5.98           | 120              | 2.10                   | 10.30          | 208              | 2.10                   |
|            |               | 1450                | 230                          | 1.80           | 75               | 0.98                   | 3.16           | 127              | 3.10                   | 3.67           | 147              | 2.30                   | 6.46           | 262              | 2.90                   |
|            |               | 960                 | 152                          | 1.27           | 80               | 1.00                   | 2.27           | 138              | 3.10                   | 2.74           | 167              | 2.32                   | 4.79           | 294              | 4.60                   |
|            |               | 725                 | 115                          | 1.01           | 84               | 1.04                   | 1.80           | 145              | 3.20                   | 2.25           | 182              | 2.35                   | 3.78           | 307              | 4.75                   |
| 14         | 8             | 2900                | 363                          | 2.48           | 66               | 0.98                   | 4.36           | 111              | 3.10                   | 5.13           | 130              | 2.10                   | 8.94           | 229              | 2.30                   |
|            |               | 1450                | 181                          | 1.49           | 79               | 0.98                   | 2.67           | 136              | 3.10                   | 3.15           | 161              | 2.30                   | 5.61           | 289              | 3.45                   |
|            |               | 960                 | 120                          | 1.06           | 85               | 1.04                   | 1.88           | 145              | 3.25                   | 2.36           | 182              | 2.35                   | 3.99           | 310              | 4.70                   |
|            |               | 725                 | 91                           | 0.84           | 90               | 1.18                   | 1.51           | 154              | 3.50                   | 1.93           | 198              | 2.40                   | 3.16           | 326              | 5.10                   |
| 15         | 9             | 2900                | 322                          | 2.36           | 67               | 0.98                   | 4.02           | 116              | 3.10                   | 4.71           | 136              | 2.10                   | 8.29           | 241              | 2.40                   |
|            |               | 1450                | 161                          | 1.40           | 80               | 1.00                   | 2.41           | 140              | 3.10                   | 2.89           | 168              | 2.30                   | 5.13           | 299              | 4.60                   |
|            |               | 960                 | 107                          | 1.00           | 87               | 1.09                   | 1.71           | 150              | 3.40                   | 2.17           | 190              | 2.35                   | 3.61           | 319              | 4.85                   |
|            |               | 725                 | 81                           | 0.78           | 90               | 1.30                   | 1.37           | 159              | 3.90                   | 1.78           | 207              | 2.50                   | 2.89           | 338              | 6.00                   |
| 17         | 11            | 2900                | 264                          | 2.04           | 74               | 0.98                   | 3.53           | 125              | 3.10                   | 4.11           | 146              | 2.10                   | 7.44           | 258              | 2.60                   |
|            |               | 1450                | 132                          | 1.16           | 84               | 1.02                   | 2.04           | 145              | 3.15                   | 2.52           | 179              | 2.30                   | 4.46           | 311              | 4.70                   |
|            |               | 960                 | 87                           | 0.82           | 90               | 1.30                   | 1.46           | 158              | 3.55                   | 1.89           | 203              | 2.40                   | 3.17           | 333              | 5.55                   |
|            |               | 725                 | 66                           | 0.62           | 90               | 1.45                   | 1.12           | 160              | 4.00                   | 1.47           | 209              | 2.75                   | 2.42           | 338              | 6.40                   |
| 18         | 12            | 2900                | 242                          | 1.89           | 77               | 0.98                   | 3.31           | 130              | 3.10                   | 3.84           | 151              | 2.15                   | 6.82           | 272              | 2.90                   |
|            |               | 1450                | 121                          | 1.06           | 87               | 1.04                   | 1.88           | 148              | 3.20                   | 2.36           | 186              | 2.35                   | 3.99           | 320              | 4.75                   |
|            |               | 960                 | 80                           | 0.72           | 90               | 1.40                   | 1.34           | 160              | 3.70                   | 1.75           | 209              | 2.55                   | 2.79           | 338              | 6.00                   |
|            |               | 725                 | 60                           | 0.55           | 90               | 1.50                   | 1.01           | 160              | 4.00                   | 1.32           | 209              | 2.80                   | 2.11           | 338              | 6.40                   |
| 19         | 14            | 2900                | 207                          | 1.70           | 80               | 0.98                   | 3.05           | 136              | 3.10                   | 3.52           | 158              | 2.15                   | 6.20           | 288              | 3.10                   |
|            |               | 1450                | 104                          | 0.96           | 90               | 1.09                   | 1.71           | 153              | 3.30                   | 2.16           | 194              | 2.35                   | 3.53           | 329              | 4.85                   |
|            |               | 960                 | 69                           | 0.63           | 90               | 1.40                   | 1.18           | 160              | 3.85                   | 1.54           | 209              | 2.75                   | 2.40           | 338              | 6.40                   |
|            |               | 725                 | 52                           | 0.48           | 90               | 1.50                   | 0.89           | 160              | 4.00                   | 1.16           | 209              | 2.85                   | 1.81           | 338              | 6.70                   |
| 20         | 16            | 2900                | 181                          | 1.56           | 81               | 0.98                   | 2.79           | 141              | 3.10                   | 3.28           | 166              | 2.15                   | 5.86           | 304              | 3.50                   |
|            |               | 1450                | 91                           | 0.86           | 90               | 1.18                   | 1.57           | 160              | 3.50                   | 2.02           | 205              | 2.40                   | 3.25           | 338              | 5.10                   |
|            |               | 960                 | 60                           | 0.57           | 90               | 1.45                   | 1.04           | 160              | 4.00                   | 1.36           | 209              | 2.80                   | 2.15           | 338              | 6.50                   |
|            |               | 725                 | 45                           | 0.43           | 90               | 1.50                   | 0.79           | 160              | 4.00                   | 1.03           | 209              | 2.90                   | 1.62           | 338              | 7.10                   |
| 21         | 18            | 2900                | 161                          | 1.44           | 83               | 1.00                   | 2.54           | 142              | 3.10                   | 3.03           | 169              | 2.30                   | 5.52           | 306              | 4.50                   |
|            |               | 1450                | 81                           | 0.78           | 90               | 1.35                   | 1.43           | 160              | 3.90                   | 1.86           | 208              | 2.45                   | 3.04           | 338              | 5.55                   |
|            |               | 960                 | 53                           | 0.52           | 90               | 1.48                   | 0.94           | 160              | 4.00                   | 1.23           | 209              | 2.80                   | 2.01           | 338              | 6.70                   |
|            |               | 725                 | 40                           | 0.39           | 90               | 1.60                   | 0.71           | 160              | 4.00                   | 0.93           | 209              | 3.05                   | 1.52           | 338              | 7.20                   |
| 22         | 20            | 2900                | 145                          | 1.33           | 84               | 1.00                   | 2.26           | 145              | 3.15                   | 2.76           | 177              | 2.30                   | 4.81           | 315              | 4.60                   |
|            |               | 1450                | 73                           | 0.71           | 90               | 1.40                   | 1.24           | 160              | 3.95                   | 1.62           | 209              | 2.60                   | 2.57           | 338              | 6.00                   |
|            |               | 960                 | 48                           | 0.47           | 90               | 1.50                   | 0.82           | 160              | 4.00                   | 1.07           | 209              | 2.90                   | 1.70           | 338              | 7.10                   |
|            |               | 725                 | 36                           | 0.35           | 90               | 1.60                   | 0.62           | 160              | 4.00                   | 0.81           | 209              | 3.10                   | 1.28           | 338              | 7.20                   |
| 23         | 22            | 2900                | 132                          | 1.17           | 86               | 1.02                   | 2.11           | 147              | 3.15                   | 2.61           | 182              | 2.30                   | 4.56           | 319              | 4.70                   |
|            |               | 1450                | 66                           | 0.61           | 90               | 1.45                   | 1.14           | 160              | 4.00                   | 1.49           | 209              | 2.75                   | 2.41           | 338              | 6.40                   |
|            |               | 960                 | 44                           | 0.40           | 90               | 1.55                   | 0.76           | 160              | 4.00                   | 0.99           | 209              | 3.05                   | 1.59           | 338              | 7.10                   |
|            |               | 725                 | 33                           | 0.30           | 90               | 1.90                   | 0.57           | 160              | 4.00                   | 0.75           | 209              | 3.10                   | 1.20           | 338              | 7.20                   |
| 25         | 28            | 2900                | 104                          | 1.01           | 90               | 1.05                   | 1.83           | 153              | 3.20                   | 2.30           | 193              | 2.35                   | 3.82           | 331              | 4.80                   |
|            |               | 1450                | 52                           | 0.51           | 90               | 1.48                   | 0.95           | 160              | 4.00                   | 1.25           | 209              | 2.80                   | 1.94           | 338              | 6.70                   |
|            |               | 960                 | 34                           | 0.34           | 90               | 1.60                   | 0.63           | 160              | 4.00                   | 0.82           | 209              | 3.10                   | 1.29           | 338              | 7.20                   |
|            |               | 725                 | 26                           | 0.25           | 90               | 1.90                   | 0.48           | 160              | 4.00                   | 0.62           | 209              | 3.15                   | 0.97           | 338              | 7.20                   |
| 26         | 32            | 2900                | 91                           | 0.87           | 90               | 1.18                   | 1.59           | 160              | 3.50                   | 2.04           | 205              | 2.40                   | 3.31           | 338              | 5.10                   |
|            |               | 1450                | 45                           | 0.44           | 90               | 1.50                   | 0.80           | 160              | 4.00                   | 1.04           | 209              | 2.90                   | 1.65           | 338              | 7.10                   |
|            |               | 960                 | 30                           | 0.29           | 90               | 1.90                   | 0.53           | 160              | 4.00                   | 0.69           | 209              | 3.10                   | 1.09           | 338              | 7.20                   |
|            |               | 725                 | 23                           | 0.22           | 90               | 1.90                   | 0.40           | 160              | 4.00                   | 0.52           | 209              | 3.15                   | 0.82           | 338              | 7.20                   |
| 27         | 36            | 2900                | 81                           | 0.79           | 90               | 1.35                   | 1.42           | 160              | 3.90                   | 1.85           | 209              | 2.45                   | 3.02           | 338              | 8.55                   |
|            |               | 1450                | 40                           | 0.39           | 90               | 1.60                   | 0.71           | 160              | 4.00                   | 0.92           | 209              | 3.05                   | 1.51           | 338              | 7.20                   |
|            |               | 960                 | 27                           | 0.26           | 90               | 1.90                   | 0.47           | 160              | 4.00                   | 0.61           | 209              | 3.15                   | 1.00           | 338              | 7.20                   |
|            |               | 725                 | 20                           | 0.20           | 90               | 1.90                   | 0.35           | 160              | 4.00                   | 0.46           | 209              | 3.15                   | 0.75           | 338              | 7.20                   |
| 29         | 45            | 2900                | 64                           | 0.61           | 84               | 1.45                   | 1.22           | 160              | 4.00                   | 1.43           | 188              | 2.60                   | 2.47           | 338              | 6.40                   |
|            |               | 1450                | 32                           | 0.30           | 84               | 1.90                   | 0.61           | 160              | 4.00                   | 0.75           | 199              | 3.10                   | 1.23           | 338              | 7.20                   |
|            |               | 960                 | 21                           | 0.20           | 84               | 1.90                   | 0.40           | 160              | 4.00                   | 0.52           | 206              | 3.15                   | 0.82           | 338              | 7.20                   |
|            |               | 725                 | 16                           | 0.15           | 84               | 1.90                   | 0.30           | 160              | 4.00                   | 0.40           | 209              | 3.15                   | 0.62           | 338              | 7.20                   |
| 30         | 50            | 2900                | 58                           | 0.46           | 72               | 1.48                   | 1.07           | 160              | 4.00                   | 1.29           | 192              | 2.75                   | 2.22           | 338              | 6.50                   |
|            |               | 1450                | 29                           | 0.23           | 72               | 1.90                   | 0.54           | 160              | 4.00                   | 0.68           | 203              | 3.10                   | 1.11           | 338              | 7.20                   |
|            |               | 960                 | 19                           | 0.15           | 72               | 1.90                   | 0.35           | 160              | 4.00                   | 0.46           | 208              | 3.15                   | 0.73           | 338              | 7.20                   |
|            |               | 725                 | 15                           | 0.11           | 72               | 1.90                   | 0.27           | 160              | 4.00                   | 0.35           | 208              | 3.15                   | 0.55           | 338              | 7.20                   |
| 31         | 56            | 2900                | 52                           | 0.40           | 71               | 1.50                   | 0.95           | 160              | 4.00                   | 1.21           | 205              | 2.80                   | 1.58           | 269              | 6.70                   |
|            |               | 1450                | 26                           | 0.20           | 71               | 1.90                   | 0.47           | 160              | 4.00                   | 0.61           | 206              | 3.15                   | 0.79           | 270              | 7.20                   |
|            |               | 960                 | 17                           | 0.13           | 71               | 1.90                   | 0.31           | 160              | 4.00                   | 0.40           | 206              | 3.15                   | 0.52           | 270              | 7.20                   |
|            |               | 725                 | 13                           | 0.10           | 71               | 1.90                   | 0.24           | 160              | 4.00                   | 0.30           | 206              | 3.15                   | 0.40           | 270              | 7.20                   |

# Series M Gearboxes : Non motorised selection

## DOUBLE REDUCTION RATINGS SIZES 862, 803, 863 and 864

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 862            |                  |                        | 803            |                  |                        | 863            |                  |                        | 864            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 09         | 3.6           | 2900                | 806                          | 23.10          | 263              | 2.80                   | -              | -                | -                      | 26.10          | 304              | 3.50                   | 41.30          | 479              | 5.50                   |
|            |               | 1450                | 403                          | 12.80          | 292              | 2.80                   | -              | -                | -                      | 13.10          | 306              | 3.50                   | 20.70          | 483              | 6.20                   |
|            |               | 960                 | 267                          | 8.44           | 293              | 2.80                   | -              | -                | -                      | 8.65           | 307              | 3.50                   | 13.70          | 484              | 6.25                   |
|            |               | 725                 | 201                          | 6.38           | 293              | 2.80                   | -              | -                | -                      | 6.53           | 307              | 3.50                   | 10.30          | 485              | 6.36                   |
| 10         | 5             | 2900                | 580                          | 19.70          | 317              | 2.80                   | 23.10          | 326              | 4.00                   | 26.10          | 423              | 3.50                   | 41.30          | 683              | 5.60                   |
|            |               | 1450                | 290                          | 11.80          | 382              | 2.80                   | 12.80          | 362              | 4.35                   | 13.10          | 425              | 3.50                   | 20.70          | 686              | 6.20                   |
|            |               | 960                 | 192                          | 7.84           | 383              | 2.80                   | 8.44           | 363              | 4.45                   | 8.65           | 425              | 3.50                   | 13.70          | 688              | 6.35                   |
|            |               | 725                 | 145                          | 5.92           | 383              | 2.85                   | 6.38           | 363              | 4.50                   | 6.53           | 426              | 3.50                   | 10.30          | 688              | 6.50                   |
| 11         | 5.6           | 2900                | 518                          | 18.60          | 336              | 2.80                   | 19.70          | 393              | 4.10                   | 24.50          | 447              | 3.50                   | 41.30          | 760              | 5.80                   |
|            |               | 1450                | 259                          | 11.30          | 409              | 2.80                   | 11.80          | 473              | 4.45                   | 13.10          | 477              | 3.50                   | 20.70          | 763              | 6.25                   |
|            |               | 960                 | 171                          | 7.54           | 412              | 2.80                   | 7.84           | 474              | 4.50                   | 8.65           | 478              | 3.50                   | 13.70          | 764              | 6.40                   |
|            |               | 725                 | 129                          | 5.69           | 413              | 2.85                   | 5.92           | 474              | 5.00                   | 6.53           | 478              | 3.50                   | 10.30          | 765              | 6.60                   |
| 12         | 6.3           | 2900                | 460                          | 17.50          | 354              | 2.80                   | 18.60          | 416              | 4.20                   | 23.20          | 464              | 3.50                   | 40.60          | 832              | 6.00                   |
|            |               | 1450                | 230                          | 10.20          | 413              | 2.85                   | 11.40          | 510              | 4.45                   | 13.10          | 525              | 3.50                   | 20.70          | 849              | 6.30                   |
|            |               | 960                 | 152                          | 6.74           | 413              | 2.90                   | 7.54           | 511              | 4.60                   | 8.65           | 526              | 3.50                   | 13.70          | 851              | 6.50                   |
|            |               | 725                 | 115                          | 5.09           | 414              | 2.90                   | 5.69           | 511              | 5.20                   | 6.53           | 526              | 3.50                   | 10.30          | 851              | 6.70                   |
| 14         | 8             | 2900                | 363                          | 14.80          | 381              | 2.80                   | 17.50          | 438              | 4.30                   | 19.90          | 519              | 3.50                   | 34.90          | 926              | 6.20                   |
|            |               | 1450                | 181                          | 8.55           | 441              | 2.85                   | 10.20          | 512              | 4.45                   | 12.50          | 655              | 3.50                   | 20.70          | 1100             | 6.35                   |
|            |               | 960                 | 120                          | 5.77           | 450              | 2.90                   | 6.74           | 512              | 4.70                   | 8.65           | 687              | 3.50                   | 13.70          | 1100             | 6.70                   |
|            |               | 725                 | 91                           | 4.36           | 450              | 2.95                   | 5.09           | 512              | 5.20                   | 6.53           | 687              | 3.60                   | 10.30          | 1100             | 7.25                   |
| 15         | 9             | 2900                | 322                          | 13.40          | 391              | 2.80                   | 15.20          | 484              | 4.35                   | 18.40          | 547              | 3.50                   | 32.50          | 967              | 6.20                   |
|            |               | 1450                | 161                          | 7.69           | 450              | 2.90                   | 9.30           | 594              | 4.50                   | 11.50          | 689              | 3.50                   | 20.50          | 1220             | 6.50                   |
|            |               | 960                 | 107                          | 5.09           | 450              | 2.95                   | 6.15           | 594              | 5.20                   | 8.24           | 743              | 3.50                   | 13.70          | 1240             | 7.10                   |
|            |               | 725                 | 81                           | 3.84           | 450              | 3.00                   | 4.64           | 594              | 6.50                   | 6.52           | 780              | 3.70                   | 10.30          | 1240             | 8.00                   |
| 17         | 11            | 2900                | 264                          | 11.70          | 406              | 2.80                   | 14.00          | 507              | 4.45                   | 16.30          | 589              | 3.50                   | 28.40          | 1040             | 6.20                   |
|            |               | 1450                | 132                          | 6.45           | 450              | 2.90                   | 8.34           | 604              | 4.70                   | 10.00          | 726              | 3.50                   | 17.90          | 1310             | 6.60                   |
|            |               | 960                 | 87                           | 4.27           | 450              | 2.95                   | 5.55           | 607              | 5.85                   | 7.06           | 773              | 3.60                   | 13.60          | 1500             | 7.50                   |
|            |               | 725                 | 66                           | 3.22           | 450              | 4.00                   | 4.19           | 607              | 7.20                   | 5.59           | 811              | 4.25                   | 10.30          | 1520             | 9.00                   |
| 18         | 12            | 2900                | 242                          | 10.50          | 418              | 2.85                   | 12.50          | 538              | 4.45                   | 15.40          | 611              | 3.50                   | 25.80          | 1060             | 6.30                   |
|            |               | 1450                | 121                          | 5.31           | 426              | 2.90                   | 7.11           | 613              | 5.20                   | 9.28           | 740              | 3.60                   | 16.30          | 1340             | 6.90                   |
|            |               | 960                 | 80                           | 3.52           | 427              | 3.25                   | 4.79           | 625              | 6.50                   | 6.58           | 793              | 3.70                   | 12.40          | 1540             | 8.50                   |
|            |               | 725                 | 60                           | 2.66           | 427              | 4.20                   | 3.62           | 625              | 7.20                   | 5.13           | 819              | 4.20                   | 10.20          | 1690             | 9.00                   |
| 19         | 14            | 2900                | 207                          | 9.28           | 432              | 2.85                   | 10.60          | 527              | 4.45                   | 14.10          | 644              | 3.50                   | 23.30          | 1120             | 6.30                   |
|            |               | 1450                | 104                          | 4.82           | 450              | 2.95                   | 5.31           | 528              | 5.20                   | 8.31           | 761              | 3.60                   | 14.70          | 1410             | 6.90                   |
|            |               | 960                 | 69                           | 3.19           | 450              | 4.00                   | 3.52           | 528              | 7.20                   | 5.84           | 808              | 4.00                   | 11.20          | 1620             | 9.00                   |
|            |               | 725                 | 52                           | 2.41           | 450              | 4.25                   | 2.66           | 528              | 7.20                   | 4.53           | 830              | 4.50                   | 8.82           | 1700             | 9.50                   |
| 20         | 16            | 2900                | 181                          | 8.50           | 442              | 2.85                   | 10.10          | 584              | 4.50                   | 13.20          | 684              | 3.50                   | 21.70          | 1150             | 6.38                   |
|            |               | 1450                | 91                           | 4.32           | 450              | 2.95                   | 5.16           | 596              | 5.85                   | 7.58           | 786              | 3.50                   | 13.40          | 1420             | 7.25                   |
|            |               | 960                 | 60                           | 2.86           | 450              | 4.10                   | 3.42           | 597              | 7.20                   | 5.22           | 818              | 4.20                   | 8.85           | 1420             | 9.00                   |
|            |               | 725                 | 45                           | 2.16           | 450              | 4.50                   | 2.58           | 597              | 7.20                   | 4.05           | 841              | 4.65                   | 6.68           | 1420             | 9.50                   |
| 21         | 18            | 2900                | 161                          | 8.08           | 448              | 2.90                   | 9.28           | 598              | 4.50                   | 12.30          | 700              | 3.50                   | 19.90          | 1160             | 6.50                   |
|            |               | 1450                | 81                           | 4.05           | 450              | 3.00                   | 4.85           | 626              | 6.50                   | 6.93           | 794              | 3.60                   | 11.70          | 1360             | 8.00                   |
|            |               | 960                 | 53                           | 2.68           | 450              | 4.20                   | 3.21           | 626              | 7.20                   | 4.77           | 826              | 4.50                   | 7.74           | 1360             | 9.25                   |
|            |               | 725                 | 40                           | 2.02           | 450              | 4.50                   | 2.42           | 626              | 7.20                   | 3.71           | 849              | 5.10                   | 5.85           | 1360             | 10.00                  |
| 22         | 20            | 2900                | 145                          | 6.85           | 450              | 2.90                   | 8.75           | 601              | 4.60                   | 11.20          | 731              | 3.50                   | 18.30          | 1200             | 6.50                   |
|            |               | 1450                | 73                           | 3.42           | 450              | 3.50                   | 4.55           | 626              | 7.20                   | 6.14           | 804              | 3.90                   | 11.10          | 1460             | 8.50                   |
|            |               | 960                 | 48                           | 2.26           | 450              | 4.50                   | 3.01           | 626              | 7.20                   | 4.23           | 837              | 4.60                   | 7.34           | 1460             | 9.50                   |
|            |               | 725                 | 36                           | 1.71           | 450              | 5.60                   | 2.27           | 626              | 7.20                   | 3.28           | 861              | 6.25                   | 5.54           | 1460             | 12.30                  |
| 23         | 22            | 2900                | 132                          | 6.41           | 450              | 2.90                   | 7.50           | 610              | 4.90                   | 10.10          | 748              | 3.50                   | 16.60          | 1230             | 6.60                   |
|            |               | 1450                | 66                           | 3.20           | 450              | 4.00                   | 3.84           | 626              | 7.20                   | 5.50           | 813              | 4.20                   | 10.30          | 1540             | 9.00                   |
|            |               | 960                 | 44                           | 2.12           | 450              | 4.50                   | 2.54           | 626              | 7.20                   | 3.79           | 847              | 5.10                   | 6.84           | 1540             | 10.00                  |
|            |               | 725                 | 33                           | 1.60           | 450              | 6.30                   | 1.92           | 626              | 7.20                   | 2.93           | 867              | 7.40                   | 5.16           | 1540             | 12.30                  |
| 25         | 28            | 2900                | 104                          | 5.17           | 450              | 2.90                   | 7.07           | 614              | 5.20                   | 8.97           | 768              | 3.50                   | 14.00          | 1260             | 6.90                   |
|            |               | 1450                | 52                           | 2.58           | 450              | 4.25                   | 3.60           | 626              | 7.20                   | 4.81           | 825              | 4.50                   | 8.80           | 1580             | 9.25                   |
|            |               | 960                 | 34                           | 1.71           | 450              | 5.60                   | 2.38           | 626              | 7.20                   | 3.32           | 860              | 6.25                   | 6.13           | 1670             | 12.30                  |
|            |               | 725                 | 26                           | 1.29           | 450              | 7.20                   | 1.80           | 626              | 7.20                   | 2.53           | 867              | 8.00                   | 4.63           | 1670             | 14.00                  |
| 26         | 32            | 2900                | 91                           | 4.39           | 450              | 2.95                   | 5.81           | 626              | 5.80                   | 7.70           | 786              | 3.50                   | 12.20          | 1280             | 7.25                   |
|            |               | 1450                | 45                           | 2.19           | 450              | 4.50                   | 2.90           | 626              | 7.20                   | 4.11           | 840              | 4.65                   | 7.72           | 1620             | 9.50                   |
|            |               | 960                 | 30                           | 1.45           | 450              | 6.30                   | 1.92           | 626              | 7.20                   | 2.81           | 867              | 7.40                   | 5.36           | 1700             | 13.50                  |
|            |               | 725                 | 23                           | 1.10           | 450              | 7.20                   | 1.45           | 626              | 7.20                   | 2.12           | 868              | 9.20                   | 4.04           | 1700             | 16.20                  |
| 27         | 36            | 2900                | 81                           | 4.02           | 450              | 3.00                   | 4.93           | 626              | 6.50                   | 7.10           | 792              | 3.60                   | 11.40          | 1310             | 8.00                   |
|            |               | 1450                | 40                           | 2.01           | 450              | 5.00                   | 2.47           | 626              | 7.20                   | 3.79           | 847              | 5.10                   | 7.18           | 1650             | 10.00                  |
|            |               | 960                 | 27                           | 1.33           | 450              | 7.20                   | 1.63           | 626              | 7.20                   | 2.57           | 867              | 8.00                   | 4.88           | 1700             | 14.00                  |
|            |               | 725                 | 20                           | 1.00           | 450              | 7.20                   | 1.23           | 626              | 7.20                   | 1.94           | 868              | 9.20                   | 3.69           | 1700             | 16.20                  |
| 29         | 45            | 2900                | 64                           | 3.03           | 415              | 4.00                   | 4.51           | 626              | 7.20                   | 6.03           | 806              | 3.90                   | 9.51           | 1340             | 9.00                   |
|            |               | 1450                | 32                           | 1.55           | 424              | 5.60                   | 2.25           | 626              | 7.20                   | 3.23           | 863              | 6.25                   | 5.99           | 1690             | 12.30                  |
|            |               | 960                 | 21                           | 1.06           | 439              | 7.20                   | 1.49           | 626              | 7.20                   | 2.15           | 868              | 9.20                   | 3.98           | 1700             | 16.20                  |
|            |               | 725                 | 16                           | 0.82           | 450              | 7.20                   | 1.13           | 626              | 7.20                   | 1.62           | 868              | 9.20                   | 3.01           | 1700             | 16.20                  |
| 30         | 50            | 2900                | 58                           | 2.48           | 379              | 4.00                   | 3.03           | 514              | 7.20                   | 4.56           | 700              | 4.20                   | 8.79           | 1350             | 9.20                   |
|            |               | 1450                | 29                           | 1.24           | 379              | 6.30                   | 1.55           | 526              | 7.20                   | 2.28           | 700              | 7.40                   | 5.48           | 1690             | 13.50                  |
|            |               | 960                 | 19                           | 0.82           | 379              | 7.20                   | 1.06           | 544              | 7.20                   | 1.51           | 701              | 9.20                   | 3.65           | 1700             | 16.20                  |
|            |               | 725                 | 15                           | 0.62           | 379              | 7.20                   | 0.82           | 557              | 7.20                   | 1.14           | 701              | 9.20                   | 2.76           | 1700             | 16.20                  |
| 31         | 56            | 2900                | 52                           | 1.58           | 269              | 4.25                   | 2.48           | 469              | 7.20                   | 3.49           | 595              | 4.50                   | 7.72           | 1360             | 9.25                   |
|            |               | 1450                | 26                           | 0.79           | 270              | 7.20                   | 1.24           | 470              | 7.20                   | 1.75           | 596              | 9.20                   | 4.36           | 1540             | 16.20                  |
|            |               | 960                 | 17                           | 0.52           | 270              | 7.20                   | 0.82           | 470              | 7.20                   | 1.16           | 596              | 9.20                   | 2.91           | 1550             | 16.20                  |
|            |               | 725                 | 13                           | 0.40           | 270              | 7.20                   | 0.62           | 470              | 7.20                   | 0.87           | 596              | 9.20                   | 2.19           | 1550             | 16.20                  |

## Series M Gearboxes : Non motorised selection

## DOUBLE REDUCTION RATINGS SIZES 865 - 868

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 865            |                  |                        | 866            |                  |                        | 867            |                  |                        | 868            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 1          | 1.4           | 2900                | 2071                         | 96.10          | 452              | 10.00                  | 156.00         | 719              | 12.00                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 1450                | 1036                         | 60.60          | 574              | 10.00                  | 78.20          | 722              | 12.00                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 960                 | 686                          | 46.00          | 661              | 10.10                  | 51.80          | 722              | 12.20                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 725                 | 518                          | 38.20          | 727              | 10.10                  | 39.10          | 723              | 12.20                  | -              | -                | -                      | -              | -                | -                      |
| 2          | 1.8           | 2900                | 1611                         | 82.20          | 534              | 10.00                  | 156.00         | 1010             | 12.00                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 1450                | 806                          | 51.80          | 677              | 10.10                  | 78.20          | 1010             | 12.20                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 960                 | 533                          | 39.30          | 779              | 10.10                  | 51.80          | 1010             | 12.20                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 725                 | 403                          | 32.60          | 856              | 10.20                  | 39.10          | 1010             | 12.30                  | -              | -                | -                      | -              | -                | -                      |
| 3          | 2.2           | 2900                | 1318                         | 77.50          | 565              | 10.00                  | 156.00         | 1100             | 12.00                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 1450                | 659                          | 48.80          | 716              | 10.10                  | 78.20          | 1100             | 12.20                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 960                 | 436                          | 37.10          | 824              | 10.20                  | 51.80          | 1100             | 12.30                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 725                 | 330                          | 30.80          | 906              | 10.20                  | 39.10          | 1100             | 12.30                  | -              | -                | -                      | -              | -                | -                      |
| 4          | 2.5           | 2900                | 1160                         | 72.90          | 596              | 10.00                  | 147.00         | 1170             | 12.00                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 1450                | 580                          | 45.90          | 756              | 10.10                  | 78.20          | 1250             | 12.20                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 960                 | 384                          | 34.90          | 869              | 10.20                  | 51.80          | 1250             | 12.30                  | -              | -                | -                      | -              | -                | -                      |
|            |               | 725                 | 290                          | 28.90          | 956              | 10.40                  | 39.10          | 1250             | 12.40                  | -              | -                | -                      | -              | -                | -                      |
| 5          | 2.8           | 2900                | 1036                         | 96.10          | 909              | 10.00                  | 156.00         | 1490             | 12.00                  | 195.00         | 1810             | 28.00                  | 274.00         | 2520             | 35.00                  |
|            |               | 1450                | 518                          | 60.60          | 1150             | 10.10                  | 78.20          | 1490             | 12.20                  | 97.40          | 1810             | 28.70                  | 137.00         | 2520             | 36.00                  |
|            |               | 960                 | 343                          | 46.00          | 1320             | 10.20                  | 51.80          | 1500             | 12.30                  | 64.50          | 1810             | 29.50                  | 90.60          | 2520             | 37.50                  |
|            |               | 725                 | 259                          | 38.20          | 1460             | 10.40                  | 39.10          | 1500             | 12.40                  | 48.70          | 1810             | 30.00                  | 68.50          | 2520             | 38.00                  |
| 6          | 3.2           | 2900                | 906                          | 63.60          | 671              | 10.10                  | 126.00         | 1310             | 12.20                  | 195.00         | 1980             | 28.30                  | 274.00         | 2840             | 35.50                  |
|            |               | 1450                | 453                          | 40.00          | 850              | 10.20                  | 75.20          | 1570             | 12.30                  | 97.40          | 1990             | 29.20                  | 137.00         | 2840             | 37.00                  |
|            |               | 960                 | 300                          | 30.40          | 978              | 10.40                  | 49.80          | 1570             | 12.40                  | 64.50          | 1990             | 30.00                  | 90.60          | 2840             | 38.00                  |
|            |               | 725                 | 227                          | 25.20          | 1070             | 10.60                  | 37.60          | 1570             | 12.40                  | 48.70          | 1990             | 31.00                  | 68.50          | 2840             | 39.00                  |
| 7          | 3.6           | 2900                | 806                          | 58.60          | 692              | 10.10                  | 118.00         | 1330             | 12.20                  | 195.00         | 2250             | 28.30                  | 274.00         | 3320             | 35.50                  |
|            |               | 1450                | 403                          | 36.90          | 876              | 10.20                  | 69.70          | 1570             | 12.30                  | 97.40          | 2260             | 29.20                  | 137.00         | 3330             | 37.00                  |
|            |               | 960                 | 267                          | 28.10          | 1010             | 10.40                  | 46.10          | 1570             | 12.40                  | 64.50          | 2260             | 30.00                  | 90.60          | 3330             | 38.00                  |
|            |               | 725                 | 201                          | 22.80          | 1090             | 10.60                  | 34.80          | 1570             | 12.40                  | 48.70          | 2260             | 31.00                  | 68.50          | 3330             | 39.00                  |
| 8          | 4             | 2900                | 725                          | 82.20          | 1070             | 10.10                  | 156.00         | 2090             | 12.20                  | 195.00         | 2510             | 28.30                  | 274.00         | 3520             | 35.50                  |
|            |               | 1450                | 363                          | 51.80          | 1360             | 10.20                  | 78.20          | 2090             | 12.30                  | 97.40          | 2510             | 29.50                  | 137.00         | 3530             | 37.50                  |
|            |               | 960                 | 240                          | 39.30          | 1560             | 10.60                  | 51.80          | 2090             | 12.40                  | 64.50          | 2510             | 31.00                  | 90.60          | 3530             | 39.00                  |
|            |               | 725                 | 181                          | 32.60          | 1710             | 10.80                  | 39.10          | 2100             | 12.50                  | 48.70          | 2510             | 32.50                  | 68.50          | 3530             | 40.00                  |
| 9          | 4.5           | 2900                | 644                          | 77.50          | 1130             | 10.10                  | 152.00         | 2200             | 12.20                  | 195.00         | 2760             | 28.30                  | 274.00         | 3970             | 35.50                  |
|            |               | 1450                | 322                          | 48.80          | 1440             | 10.20                  | 78.20          | 2280             | 12.30                  | 97.40          | 2760             | 29.50                  | 137.00         | 3970             | 37.50                  |
|            |               | 960                 | 213                          | 37.10          | 1650             | 10.60                  | 51.80          | 2280             | 12.40                  | 64.50          | 2760             | 31.00                  | 90.60          | 3970             | 39.00                  |
|            |               | 725                 | 161                          | 30.80          | 1810             | 10.80                  | 39.10          | 2280             | 12.50                  | 48.70          | 2760             | 32.50                  | 68.50          | 3970             | 40.00                  |
| 10         | 5             | 2900                | 580                          | 82.20          | 1330             | 10.10                  | 144.00         | 2260             | 12.20                  | 195.00         | 3130             | 28.70                  | 274.00         | 4650             | 36.00                  |
|            |               | 1450                | 290                          | 51.80          | 1680             | 10.40                  | 78.20          | 2470             | 12.40                  | 97.40          | 3140             | 30.00                  | 137.00         | 4660             | 38.00                  |
|            |               | 960                 | 192                          | 39.30          | 1930             | 10.80                  | 51.80          | 2470             | 12.50                  | 64.50          | 3140             | 32.50                  | 90.60          | 4660             | 40.00                  |
|            |               | 725                 | 145                          | 32.60          | 2120             | 11.00                  | 39.10          | 2470             | 12.50                  | 48.70          | 3140             | 35.00                  | 68.50          | 4660             | 41.00                  |
| 11         | 5.6           | 2900                | 518                          | 77.50          | 1410             | 10.10                  | 137.00         | 2340             | 12.20                  | 195.00         | 3440             | 28.70                  | 274.00         | 5240             | 36.00                  |
|            |               | 1450                | 259                          | 48.80          | 1780             | 10.40                  | 78.20          | 2690             | 12.40                  | 97.40          | 3450             | 30.00                  | 137.00         | 5240             | 38.00                  |
|            |               | 960                 | 171                          | 37.10          | 2040             | 10.80                  | 51.80          | 2690             | 12.50                  | 64.50          | 3450             | 32.50                  | 90.60          | 5240             | 40.00                  |
|            |               | 725                 | 129                          | 30.70          | 2250             | 11.00                  | 39.10          | 2690             | 12.50                  | 48.70          | 3450             | 35.00                  | 68.50          | 5240             | 41.00                  |
| 12         | 6.3           | 2900                | 460                          | 63.60          | 1350             | 10.20                  | 119.00         | 2550             | 12.30                  | 195.00         | 3880             | 29.20                  | 274.00         | 5730             | 37.00                  |
|            |               | 1450                | 230                          | 40.00          | 1700             | 10.60                  | 72.90          | 3140             | 12.40                  | 97.40          | 3880             | 31.00                  | 137.00         | 5730             | 39.00                  |
|            |               | 960                 | 152                          | 30.40          | 1960             | 11.00                  | 51.80          | 3370             | 12.50                  | 64.50          | 3880             | 35.00                  | 90.60          | 5730             | 41.00                  |
|            |               | 725                 | 115                          | 25.20          | 2150             | 11.40                  | 39.10          | 3370             | 13.00                  | 48.70          | 3880             | 38.00                  | 68.50          | 5730             | 43.00                  |
| 13         | 7.1           | 2900                | 408                          | 58.60          | 1390             | 10.20                  | 113.00         | 2620             | 12.30                  | 195.00         | 4300             | 29.20                  | 274.00         | 6370             | 37.00                  |
|            |               | 1450                | 204                          | 36.90          | 1760             | 10.60                  | 69.50          | 3230             | 12.40                  | 97.40          | 4300             | 31.00                  | 137.00         | 6360             | 39.00                  |
|            |               | 960                 | 135                          | 28.10          | 2020             | 11.00                  | 51.80          | 3640             | 12.50                  | 64.50          | 4300             | 35.00                  | 90.60          | 6360             | 41.00                  |
|            |               | 725                 | 102                          | 23.30          | 2220             | 11.40                  | 39.10          | 3640             | 13.00                  | 48.70          | 4300             | 38.00                  | 68.50          | 6370             | 43.00                  |
| 14         | 8             | 2900                | 363                          | 63.60          | 1670             | 10.20                  | 107.00         | 2700             | 12.30                  | 195.00         | 4840             | 29.50                  | 274.00         | 7570             | 37.50                  |
|            |               | 1450                | 181                          | 39.50          | 2080             | 10.80                  | 65.50          | 3330             | 12.50                  | 97.40          | 4840             | 32.50                  | 137.00         | 7570             | 40.00                  |
|            |               | 960                 | 120                          | 29.60          | 2360             | 11.40                  | 49.00          | 3760             | 13.00                  | 64.50          | 4840             | 38.00                  | 90.60          | 7570             | 43.00                  |
|            |               | 725                 | 91                           | 24.30          | 2560             | 13.00                  | 39.10          | 3980             | 15.00                  | 48.70          | 4850             | 42.00                  | 68.50          | 7570             | 46.00                  |
| 15         | 9             | 2900                | 322                          | 58.60          | 1720             | 10.20                  | 102.00         | 2780             | 12.30                  | 186.00         | 5110             | 29.50                  | 274.00         | 8410             | 37.50                  |
|            |               | 1450                | 161                          | 36.80          | 2170             | 10.80                  | 62.40          | 3420             | 12.50                  | 97.40          | 5360             | 32.50                  | 137.00         | 8400             | 40.00                  |
|            |               | 960                 | 107                          | 27.50          | 2450             | 11.40                  | 46.70          | 3870             | 13.00                  | 64.50          | 5370             | 38.00                  | 90.60          | 8400             | 43.00                  |
|            |               | 725                 | 81                           | 22.60          | 2670             | 13.00                  | 38.30          | 4210             | 15.00                  | 48.70          | 5370             | 42.00                  | 68.50          | 8410             | 46.00                  |
| 16         | 10            | 2900                | 290                          | 47.40          | 1560             | 10.40                  | 88.30          | 2990             | 12.40                  | 173.00         | 5470             | 30.00                  | 248.00         | 7980             | 38.00                  |
|            |               | 1450                | 145                          | 29.80          | 1970             | 11.00                  | 54.20          | 3680             | 12.50                  | 97.40          | 6170             | 35.00                  | 137.00         | 8800             | 41.00                  |
|            |               | 960                 | 96                           | 22.70          | 2260             | 13.00                  | 36.80          | 3770             | 15.00                  | 64.50          | 6180             | 42.00                  | 90.60          | 8810             | 46.00                  |
|            |               | 725                 | 73                           | 18.80          | 2480             | 15.70                  | 27.8           | 3770             | 15.90                  | 48.70          | 6180             | 45.00                  | 68.50          | 8810             | 52.00                  |
| 17         | 11            | 2900                | 264                          | 43.10          | 1610             | 10.40                  | 81.40          | 3120             | 12.40                  | 165.00         | 5900             | 30.00                  | 227.00         | 8270             | 38.00                  |
|            |               | 1450                | 132                          | 27.10          | 2040             | 11.00                  | 49.10          | 3770             | 12.50                  | 82.70          | 5940             | 35.00                  | 137.00         | 9980             | 41.00                  |
|            |               | 960                 | 87                           | 20.60          | 2340             | 13.00                  | 32.50          | 3770             | 15.00                  | 54.70          | 5940             | 42.00                  | 90.60          | 9990             | 46.00                  |
|            |               | 725                 | 66                           | 17.10          | 2570             | 15.70                  | 24.50          | 3770             | 15.90                  | 41.30          | 5940             | 45.00                  | 68.40          | 9990             | 52.00                  |



# Series M Gearboxes : Non motorised selection

## DOUBLE REDUCTION RATINGS SIZES 865 - 868

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 865            |                  |                        | 866            |                  |                        | 867            |                  |                        | 868            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 18         | 12            | 2900                | 242                          | 47.40          | 1930             | 10.60                  | 79.10          | 3160             | 12.40                  | 136.00         | 5370             | 31.00                  | 241.00         | 10200            | 39.00                  |
|            |               | 1450                | 121                          | 29.60          | 2420             | 11.40                  | 48.60          | 3890             | 13.00                  | 80.30          | 6350             | 38.00                  | 121.00         | 10200            | 43.00                  |
|            |               | 960                 | 80                           | 22.20          | 2740             | 13.00                  | 36.40          | 4400             | 15.00                  | 53.20          | 6350             | 42.00                  | 79.80          | 10200            | 46.00                  |
|            |               | 725                 | 60                           | 17.50          | 2860             | 17.00                  | 27.50          | 4410             | 23.00                  | 40.10          | 6350             | 51.00                  | 60.20          | 10200            | 60.00                  |
| 19         | 14            | 2900                | 207                          | 43.10          | 2000             | 10.60                  | 72.90          | 3290             | 12.40                  | 131.00         | 5880             | 31.00                  | 215.00         | 10400            | 39.00                  |
|            |               | 1450                | 104                          | 27.10          | 2530             | 11.40                  | 44.80          | 4050             | 13.00                  | 70.30          | 6290             | 38.00                  | 108.00         | 10400            | 43.00                  |
|            |               | 960                 | 69                           | 20.30          | 2860             | 15.70                  | 32.20          | 4410             | 15.90                  | 46.50          | 6290             | 45.00                  | 71.30          | 10400            | 52.00                  |
|            |               | 725                 | 52                           | 15.30          | 2860             | 17.00                  | 24.30          | 4410             | 23.00                  | 35.10          | 6290             | 51.00                  | 53.80          | 10400            | 60.00                  |
| 20         | 16            | 2900                | 181                          | 32.90          | 1750             | 10.80                  | 65.90          | 3460             | 12.50                  | 119.00         | 6070             | 32.50                  | 172.00         | 8970             | 40.00                  |
|            |               | 1450                | 91                           | 20.70          | 2210             | 13.00                  | 35.90          | 3770             | 15.00                  | 60.80          | 6200             | 42.00                  | 106.00         | 11100            | 46.00                  |
|            |               | 960                 | 60                           | 15.70          | 2530             | 17.00                  | 23.70          | 3770             | 23.00                  | 40.20          | 6200             | 51.00                  | 70.20          | 11100            | 60.00                  |
|            |               | 725                 | 45                           | 12.40          | 2640             | 22.40                  | 17.90          | 3770             | 28.00                  | 30.40          | 6200             | 56.00                  | 53.00          | 11100            | 70.00                  |
| 21         | 18            | 2900                | 161                          | 29.90          | 1760             | 10.80                  | 60.40          | 3520             | 12.50                  | 108.00         | 6200             | 32.50                  | 161.00         | 9260             | 40.00                  |
|            |               | 1450                | 81                           | 18.90          | 2230             | 13.00                  | 32.30          | 3770             | 15.00                  | 53.90          | 6200             | 42.00                  | 96.20          | 11100            | 46.00                  |
|            |               | 960                 | 53                           | 14.30          | 2560             | 17.00                  | 21.40          | 3770             | 23.00                  | 35.70          | 6200             | 51.00                  | 63.70          | 11100            | 60.00                  |
|            |               | 725                 | 40                           | 11.20          | 2640             | 22.40                  | 16.10          | 3770             | 28.00                  | 26.90          | 6200             | 56.00                  | 48.10          | 11100            | 70.00                  |
| 22         | 20            | 2900                | 145                          | 32.90          | 2160             | 11.00                  | 58.90          | 3650             | 12.50                  | 94.10          | 5980             | 35.00                  | 153.00         | 10600            | 41.00                  |
|            |               | 1450                | 73                           | 20.70          | 2730             | 15.70                  | 35.60          | 4410             | 15.90                  | 49.90          | 6350             | 45.00                  | 76.70          | 10600            | 52.00                  |
|            |               | 960                 | 48                           | 14.30          | 2860             | 22.40                  | 23.50          | 4410             | 28.00                  | 33.00          | 6350             | 56.00                  | 50.70          | 10600            | 70.00                  |
|            |               | 725                 | 36                           | 10.80          | 2860             | 26.20                  | 17.80          | 4410             | 34.00                  | 24.90          | 6350             | 60.00                  | 38.30          | 10600            | 79.00                  |
| 23         | 22            | 2900                | 132                          | 29.90          | 2190             | 11.00                  | 54.90          | 3770             | 12.50                  | 88.60          | 6350             | 35.00                  | 142.00         | 10800            | 41.00                  |
|            |               | 1450                | 66                           | 18.90          | 2760             | 15.70                  | 32.00          | 4410             | 15.90                  | 44.30          | 6350             | 45.00                  | 70.70          | 10800            | 52.00                  |
|            |               | 960                 | 44                           | 12.90          | 2860             | 22.40                  | 21.20          | 4410             | 28.00                  | 29.30          | 6350             | 56.00                  | 46.80          | 10800            | 70.00                  |
|            |               | 725                 | 33                           | 9.75           | 2860             | 26.20                  | 16.00          | 4410             | 34.00                  | 22.10          | 6350             | 60.00                  | 35.40          | 10800            | 79.00                  |
| 24         | 25            | 2900                | 116                          | 22.60          | 1880             | 11.40                  | 45.20          | 3760             | 13.00                  | 76.70          | 6200             | 38.00                  | 115.00         | 9530             | 43.00                  |
|            |               | 1450                | 58                           | 14.20          | 2370             | 17.00                  | 22.70          | 3770             | 23.00                  | 38.30          | 6200             | 51.00                  | 63.80          | 10600            | 60.00                  |
|            |               | 960                 | 38                           | 10.50          | 2640             | 26.20                  | 15.00          | 3770             | 34.00                  | 25.40          | 6200             | 60.00                  | 42.20          | 10600            | 79.00                  |
|            |               | 725                 | 29                           | 7.93           | 2640             | 28.00                  | 11.30          | 3770             | 40.00                  | 19.10          | 6200             | 64.00                  | 31.90          | 10600            | 79.00                  |
| 25         | 28            | 2900                | 104                          | 20.70          | 1900             | 11.40                  | 39.50          | 3770             | 13.00                  | 68.90          | 6200             | 38.00                  | 109.00         | 9770             | 43.00                  |
|            |               | 1450                | 52                           | 13.00          | 2400             | 17.00                  | 19.70          | 3770             | 23.00                  | 34.40          | 6200             | 51.00                  | 55.60          | 9970             | 60.00                  |
|            |               | 960                 | 34                           | 9.51           | 2640             | 26.20                  | 13.00          | 3770             | 34.00                  | 22.80          | 6200             | 60.00                  | 36.80          | 9980             | 79.00                  |
|            |               | 725                 | 26                           | 7.18           | 2640             | 28.00                  | 9.85           | 3770             | 40.00                  | 17.20          | 6200             | 64.00                  | 27.80          | 9980             | 79.00                  |
| 26         | 32            | 2900                | 91                           | 22.60          | 2330             | 13.00                  | 43.10          | 4220             | 15.00                  | 62.90          | 6350             | 42.00                  | 97.60          | 10700            | 46.00                  |
|            |               | 1450                | 45                           | 13.80          | 2860             | 22.40                  | 22.50          | 4410             | 28.00                  | 31.40          | 6350             | 56.00                  | 48.80          | 10700            | 70.00                  |
|            |               | 960                 | 30                           | 9.16           | 2860             | 28.00                  | 14.90          | 4410             | 40.00                  | 20.80          | 6350             | 64.00                  | 32.30          | 10700            | 79.00                  |
|            |               | 725                 | 23                           | 6.92           | 2860             | 28.00                  | 11.20          | 4410             | 40.00                  | 15.70          | 6350             | 64.00                  | 24.40          | 10700            | 79.00                  |
| 27         | 36            | 2900                | 81                           | 20.70          | 2350             | 13.00                  | 39.10          | 4410             | 15.00                  | 56.60          | 6350             | 42.00                  | 91.30          | 10800            | 46.00                  |
|            |               | 1450                | 40                           | 12.50          | 2860             | 22.40                  | 19.50          | 4410             | 28.00                  | 28.30          | 6350             | 56.00                  | 45.60          | 10800            | 70.00                  |
|            |               | 960                 | 27                           | 8.30           | 2860             | 28.00                  | 12.90          | 4410             | 40.00                  | 18.70          | 6350             | 64.00                  | 30.20          | 10800            | 79.00                  |
|            |               | 725                 | 20                           | 6.26           | 2860             | 28.00                  | 9.76           | 4410             | 40.00                  | 14.10          | 6350             | 64.00                  | 22.80          | 10800            | 79.00                  |
| 28         | 40            | 2900                | 73                           | 19.30          | 2460             | 15.70                  | 35.30          | 4160             | 15.90                  | 49.40          | 6090             | 45.00                  | 75.70          | 9400             | 52.00                  |
|            |               | 1450                | 36                           | 9.62           | 2470             | 26.20                  | 17.60          | 4160             | 34.00                  | 26.20          | 6460             | 60.00                  | 39.90          | 9940             | 79.00                  |
|            |               | 960                 | 24                           | 6.37           | 2470             | 28.00                  | 11.70          | 4160             | 40.00                  | 17.40          | 6460             | 64.00                  | 26.90          | 10100            | 79.00                  |
|            |               | 725                 | 18                           | 4.81           | 2470             | 28.00                  | 8.82           | 4160             | 40.00                  | 13.10          | 6460             | 64.00                  | 20.30          | 10100            | 79.00                  |
| 29         | 45            | 2900                | 64                           | 17.40          | 2470             | 15.70                  | 30.70          | 4160             | 15.90                  | 45.00          | 6160             | 45.00                  | 70.20          | 9460             | 52.00                  |
|            |               | 1450                | 32                           | 8.71           | 2470             | 26.20                  | 15.30          | 4160             | 34.00                  | 23.60          | 6460             | 60.00                  | 37.10          | 10000            | 79.00                  |
|            |               | 960                 | 21                           | 5.77           | 2470             | 28.00                  | 10.10          | 4160             | 40.00                  | 15.60          | 6460             | 64.00                  | 24.80          | 10100            | 79.00                  |
|            |               | 725                 | 16                           | 4.35           | 2470             | 28.00                  | 7.66           | 4160             | 40.00                  | 11.80          | 6460             | 64.00                  | 18.70          | 10100            | 79.00                  |
| 30         | 50            | 2900                | 58                           | 15.60          | 2430             | 17.00                  | 27.90          | 4250             | 23.00                  | 36.70          | 5660             | 51.00                  | 50.10          | 8130             | 60.00                  |
|            |               | 1450                | 29                           | 9.14           | 2860             | 28.00                  | 14.00          | 4260             | 40.00                  | 18.40          | 5660             | 64.00                  | 25.10          | 8140             | 79.00                  |
|            |               | 960                 | 19                           | 6.05           | 2860             | 28.00                  | 9.25           | 4260             | 40.00                  | 12.20          | 5660             | 64.00                  | 16.60          | 8140             | 79.00                  |
|            |               | 725                 | 15                           | 4.57           | 2860             | 28.00                  | 6.98           | 4260             | 40.00                  | 9.19           | 5660             | 64.00                  | 12.50          | 8140             | 79.00                  |
| 31         | 56            | 2900                | 52                           | 12.10          | 2120             | 17.00                  | 23.70          | 3870             | 23.00                  | 36.70          | 6020             | 51.00                  | 46.50          | 8440             | 60.00                  |
|            |               | 1450                | 26                           | 5.71           | 2000             | 28.00                  | 11.80          | 3870             | 40.00                  | 18.40          | 6030             | 64.00                  | 23.20          | 8450             | 79.00                  |
|            |               | 960                 | 17                           | 3.67           | 1940             | 28.00                  | 7.84           | 3870             | 40.00                  | 12.20          | 6030             | 64.00                  | 15.40          | 8450             | 79.00                  |
|            |               | 725                 | 13                           | 2.72           | 1910             | 28.00                  | 5.92           | 3870             | 40.00                  | 9.19           | 6030             | 64.00                  | 11.60          | 8450             | 79.00                  |
| 32         | 63            | 2900                | 46                           | 12.70          | 2470             | 22.40                  | 22.70          | 4160             | 28.00                  | 33.80          | 6360             | 56.00                  | 50.10          | 9270             | 70.00                  |
|            |               | 1450                | 23                           | 6.35           | 2470             | 28.00                  | 11.40          | 4160             | 40.00                  | 17.20          | 6460             | 64.00                  | 25.10          | 9270             | 79.00                  |
|            |               | 960                 | 15                           | 4.21           | 2470             | 28.00                  | 7.52           | 4160             | 40.00                  | 11.40          | 6460             | 64.00                  | 16.60          | 9280             | 79.00                  |
|            |               | 725                 | 12                           | 3.18           | 2470             | 28.00                  | 5.68           | 4160             | 40.00                  | 8.59           | 6460             | 64.00                  | 12.50          | 9280             | 79.00                  |
| 33         | 71            | 2900                | 41                           | 11.30          | 2470             | 22.40                  | 21.20          | 4160             | 28.00                  | 32.00          | 6400             | 56.00                  | 46.50          | 9620             | 70.00                  |
|            |               | 1450                | 20                           | 5.66           | 2470             | 28.00                  | 10.60          | 4160             | 40.00                  | 16.10          | 6460             | 64.00                  | 23.20          | 9630             | 79.00                  |
|            |               | 960                 | 14                           | 3.67           | 2420             | 28.00                  | 7.02           | 4160             | 40.00                  | 10.70          | 6460             | 64.00                  | 15.40          | 9630             | 79.00                  |
|            |               | 725                 | 10                           | 2.72           | 2380             | 28.00                  | 5.30           | 4160             | 40.00                  | 8.07           | 6460             | 64.00                  | 11.60          | 9630             | 79.00                  |

## Series M Gearboxes : Non motorised selection

## TRIPLE REDUCTION RATINGS SIZES 860 - 864

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 860            |                  |                        | 801            |                  |                        | 861            |                  |                        | 802            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 44         | 56            | 2900                | 52                           | 0.50           | 90               | 1.50                   | 0.89           | 159              | 4.00                   | 1.17           | 209              | 2.80                   | 1.57           | 287              | 6.70                   |
|            |               | 1450                | 26                           | 0.25           | 90               | 1.90                   | 0.45           | 160              | 4.00                   | 0.58           | 209              | 3.15                   | 0.92           | 338              | 7.20                   |
|            |               | 960                 | 17                           | 0.16           | 90               | 1.90                   | 0.30           | 160              | 4.00                   | 0.39           | 209              | 3.15                   | 0.61           | 338              | 7.20                   |
|            |               | 725                 | 13                           | 0.12           | 90               | 1.90                   | 0.22           | 160              | 4.00                   | 0.29           | 209              | 3.15                   | 0.46           | 338              | 7.20                   |
| 45         | 63            | 2900                | 46                           | 0.45           | 90               | 1.50                   | 0.81           | 160              | 4.00                   | 1.06           | 209              | 2.90                   | 1.46           | 293              | 7.10                   |
|            |               | 1450                | 23                           | 0.22           | 90               | 1.90                   | 0.41           | 160              | 4.00                   | 0.53           | 209              | 3.15                   | 0.84           | 338              | 7.20                   |
|            |               | 960                 | 15                           | 0.15           | 90               | 1.90                   | 0.27           | 160              | 4.00                   | 0.35           | 209              | 3.15                   | 0.55           | 338              | 7.20                   |
|            |               | 725                 | 12                           | 0.11           | 90               | 1.90                   | 0.20           | 160              | 4.00                   | 0.26           | 209              | 3.15                   | 0.42           | 338              | 7.20                   |
| 46         | 71            | 2900                | 41                           | 0.41           | 90               | 1.60                   | 0.74           | 160              | 4.00                   | 0.97           | 209              | 3.00                   | 1.31           | 302              | 7.20                   |
|            |               | 1450                | 20                           | 0.20           | 90               | 1.90                   | 0.37           | 160              | 4.00                   | 0.48           | 209              | 3.15                   | 0.73           | 338              | 7.20                   |
|            |               | 960                 | 14                           | 0.13           | 90               | 1.90                   | 0.24           | 160              | 4.00                   | 0.32           | 209              | 3.15                   | 0.48           | 338              | 7.20                   |
|            |               | 725                 | 10                           | 0.10           | 90               | 1.90                   | 0.18           | 160              | 4.00                   | 0.24           | 209              | 3.15                   | 0.36           | 338              | 7.20                   |
| 47         | 80            | 2900                | 36                           | 0.35           | 90               | 1.70                   | 0.63           | 160              | 4.00                   | 0.82           | 209              | 3.10                   | 1.22           | 307              | 7.20                   |
|            |               | 1450                | 18                           | 0.17           | 90               | 1.90                   | 0.31           | 160              | 4.00                   | 0.41           | 209              | 3.15                   | 0.67           | 338              | 7.20                   |
|            |               | 960                 | 12                           | 0.12           | 90               | 1.90                   | 0.21           | 160              | 4.00                   | 0.27           | 209              | 3.15                   | 0.44           | 338              | 7.20                   |
|            |               | 725                 | 9                            | 0.09           | 90               | 1.90                   | 0.16           | 160              | 4.00                   | 0.20           | 209              | 3.15                   | 0.33           | 338              | 7.20                   |
| 49         | 100           | 2900                | 29                           | 0.29           | 90               | 1.90                   | 0.53           | 160              | 4.00                   | 0.69           | 209              | 3.15                   | 1.07           | 324              | 7.20                   |
|            |               | 1450                | 15                           | 0.14           | 90               | 1.90                   | 0.26           | 160              | 4.00                   | 0.34           | 209              | 3.15                   | 0.56           | 338              | 7.20                   |
|            |               | 960                 | 10                           | 0.10           | 90               | 1.90                   | 0.17           | 160              | 4.00                   | 0.23           | 209              | 3.15                   | 0.37           | 338              | 7.20                   |
|            |               | 725                 | 7                            | 0.07           | 90               | 1.90                   | 0.13           | 160              | 4.00                   | 0.17           | 209              | 3.15                   | 0.28           | 338              | 7.20                   |
| 50         | 112           | 2900                | 26                           | 0.25           | 90               | 1.90                   | 0.45           | 160              | 4.00                   | 0.59           | 209              | 3.15                   | 0.93           | 338              | 7.20                   |
|            |               | 1450                | 13                           | 0.12           | 90               | 1.90                   | 0.23           | 160              | 4.00                   | 0.29           | 209              | 3.15                   | 0.47           | 338              | 7.20                   |
|            |               | 960                 | 9                            | 0.08           | 90               | 1.90                   | 0.15           | 160              | 4.00                   | 0.19           | 209              | 3.15                   | 0.31           | 338              | 7.20                   |
|            |               | 725                 | 6                            | 0.06           | 90               | 1.90                   | 0.11           | 160              | 4.00                   | 0.15           | 209              | 3.15                   | 0.23           | 338              | 7.20                   |
| 51         | 125           | 2900                | 23                           | 0.22           | 90               | 1.90                   | 0.41           | 160              | 4.00                   | 0.53           | 209              | 3.15                   | 0.83           | 338              | 7.20                   |
|            |               | 1450                | 12                           | 0.11           | 90               | 1.90                   | 0.20           | 160              | 4.00                   | 0.27           | 209              | 3.15                   | 0.41           | 338              | 7.20                   |
|            |               | 960                 | 8                            | 0.07           | 90               | 1.90                   | 0.14           | 160              | 4.00                   | 0.18           | 209              | 3.15                   | 0.27           | 338              | 7.20                   |
|            |               | 725                 | 6                            | 0.06           | 90               | 1.90                   | 0.10           | 160              | 4.00                   | 0.13           | 209              | 3.15                   | 0.21           | 338              | 7.20                   |
| 53         | 160           | 2900                | 18                           | 0.19           | 90               | 1.90                   | 0.34           | 160              | 4.00                   | 0.44           | 209              | 3.15                   | 0.71           | 338              | 7.20                   |
|            |               | 1450                | 9                            | 0.09           | 90               | 1.90                   | 0.17           | 160              | 4.00                   | 0.22           | 209              | 3.15                   | 0.36           | 338              | 7.20                   |
|            |               | 960                 | 6                            | 0.06           | 90               | 1.90                   | 0.11           | 160              | 4.00                   | 0.15           | 209              | 3.15                   | 0.23           | 338              | 7.20                   |
|            |               | 725                 | 5                            | 0.05           | 90               | 1.90                   | 0.08           | 160              | 4.00                   | 0.11           | 209              | 3.15                   | 0.18           | 338              | 7.20                   |
| 54         | 180           | 2900                | 16                           | 0.16           | 90               | 1.90                   | 0.29           | 160              | 4.00                   | 0.39           | 209              | 3.15                   | 0.63           | 338              | 7.20                   |
|            |               | 1450                | 8                            | 0.08           | 90               | 1.90                   | 0.15           | 160              | 4.00                   | 0.19           | 209              | 3.15                   | 0.31           | 338              | 7.20                   |
|            |               | 960                 | 5                            | 0.05           | 90               | 1.90                   | 0.10           | 160              | 4.00                   | 0.13           | 209              | 3.15                   | 0.21           | 338              | 7.20                   |
|            |               | 725                 | 4                            | 0.04           | 90               | 1.90                   | 0.07           | 160              | 4.00                   | 0.10           | 209              | 3.15                   | 0.16           | 338              | 7.20                   |
| 55         | 200           | 2900                | 15                           | 0.14           | 90               | 1.90                   | 0.26           | 160              | 4.00                   | 0.34           | 209              | 3.15                   | 0.55           | 338              | 7.20                   |
|            |               | 1450                | 7                            | 0.07           | 90               | 1.90                   | 0.13           | 160              | 4.00                   | 0.17           | 209              | 3.15                   | 0.28           | 338              | 7.20                   |
|            |               | 960                 | 5                            | 0.05           | 90               | 1.90                   | 0.09           | 160              | 4.00                   | 0.11           | 209              | 3.15                   | 0.18           | 338              | 7.20                   |
|            |               | 725                 | 4                            | 0.04           | 90               | 1.90                   | 0.06           | 160              | 4.00                   | 0.09           | 209              | 3.15                   | 0.14           | 338              | 7.20                   |

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 862            |                  |                        | 803            |                  |                        | 863            |                  |                        | 864            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 44         | 56            | 2900                | 52                           | 2.42           | 443              | 4.20                   | -              | -                | -                      | 3.47           | 640              | 4.50                   | 6.94           | 1300             | 9.25                   |
|            |               | 1450                | 26                           | 1.22           | 450              | 7.20                   | -              | -                | -                      | 2.03           | 754              | 8.10                   | 4.23           | 1600             | 16.20                  |
|            |               | 960                 | 17                           | 0.81           | 450              | 7.20                   | -              | -                | -                      | 1.54           | 865              | 9.20                   | 2.96           | 1700             | 16.20                  |
|            |               | 725                 | 13                           | 0.61           | 450              | 7.20                   | -              | -                | -                      | 1.17           | 868              | 9.20                   | 2.23           | 1700             | 16.20                  |
| 45         | 63            | 2900                | 46                           | 2.14           | 431              | 4.50                   | 2.42           | 549              | 7.20                   | 3.30           | 649              | 4.65                   | 6.50           | 1340             | 9.50                   |
|            |               | 1450                | 23                           | 1.11           | 450              | 7.20                   | 1.38           | 626              | 7.20                   | 1.95           | 770              | 9.20                   | 3.97           | 1650             | 16.20                  |
|            |               | 960                 | 15                           | 0.74           | 450              | 7.20                   | 0.91           | 626              | 7.20                   | 1.45           | 868              | 9.20                   | 2.71           | 1700             | 16.20                  |
|            |               | 725                 | 12                           | 0.56           | 450              | 7.20                   | 0.69           | 626              | 7.20                   | 1.09           | 868              | 9.20                   | 2.04           | 1700             | 16.20                  |
| 46         | 71            | 2900                | 41                           | 1.91           | 443              | 5.00                   | 2.14           | 534              | 7.20                   | 2.88           | 673              | 5.10                   | 5.96           | 1390             | 10.00                  |
|            |               | 1450                | 20                           | 0.97           | 450              | 7.20                   | 1.24           | 623              | 7.20                   | 1.74           | 815              | 9.20                   | 3.62           | 1700             | 16.20                  |
|            |               | 960                 | 14                           | 0.64           | 450              | 7.20                   | 0.82           | 626              | 7.20                   | 1.22           | 868              | 9.20                   | 2.39           | 1700             | 16.20                  |
|            |               | 725                 | 10                           | 0.48           | 450              | 7.20                   | 0.62           | 626              | 7.20                   | 0.92           | 868              | 9.20                   | 1.80           | 1700             | 16.20                  |
| 47         | 80            | 2900                | 36                           | 1.78           | 450              | 5.60                   | 1.91           | 549              | 7.20                   | 2.74           | 682              | 6.30                   | 5.47           | 1440             | 12.30                  |
|            |               | 1450                | 18                           | 0.89           | 450              | 7.20                   | 1.09           | 626              | 7.20                   | 1.67           | 833              | 9.20                   | 3.21           | 1700             | 16.20                  |
|            |               | 960                 | 12                           | 0.59           | 450              | 7.20                   | 0.72           | 626              | 7.20                   | 1.15           | 868              | 9.20                   | 2.12           | 1700             | 16.20                  |
|            |               | 725                 | 9                            | 0.44           | 450              | 7.20                   | 0.54           | 626              | 7.20                   | 0.87           | 868              | 9.20                   | 1.60           | 1700             | 16.20                  |
| 49         | 100           | 2900                | 29                           | 1.49           | 450              | 6.30                   | 1.79           | 558              | 7.20                   | 2.31           | 714              | 7.40                   | 4.78           | 1520             | 14.00                  |
|            |               | 1450                | 15                           | 0.74           | 450              | 7.20                   | 1.00           | 626              | 7.20                   | 1.40           | 868              | 9.20                   | 2.65           | 1700             | 16.20                  |
|            |               | 960                 | 10                           | 0.49           | 450              | 7.20                   | 0.66           | 626              | 7.20                   | 0.93           | 868              | 9.20                   | 1.75           | 1700             | 16.20                  |
|            |               | 725                 | 7                            | 0.37           | 450              | 7.20                   | 0.50           | 626              | 7.20                   | 0.70           | 868              | 9.20                   | 1.32           | 1700             | 16.20                  |
| 50         | 112           | 2900                | 26                           | 1.24           | 450              | 7.20                   | 1.56           | 585              | 7.20                   | 2.06           | 751              | 9.20                   | 4.29           | 1600             | 16.20                  |
|            |               | 1450                | 13                           | 0.62           | 450              | 7.20                   | 0.83           | 626              | 7.20                   | 1.19           | 868              | 9.20                   | 2.27           | 1700             | 16.20                  |
|            |               | 960                 | 9                            | 0.41           | 450              | 7.20                   | 0.55           | 626              | 7.20                   | 0.79           | 868              | 9.20                   | 1.50           | 1700             | 16.20                  |
|            |               | 725                 | 6                            | 0.31           | 450              | 7.20                   | 0.42           | 626              | 7.20                   | 0.60           | 874              | 9.20                   | 1.13           | 1700             | 16.20                  |
| 51         | 125           | 2900                | 23                           | 1.10           | 450              | 7.20                   | 1.37           | 613              | 7.20                   | 1.94           | 774              | 9.20                   | 4.02           | 1640             | 16.20                  |
|            |               | 1450                | 12                           | 0.55           | 450              | 7.20                   | 0.70           | 626              | 7.20                   | 1.09           | 868              | 9.20                   | 2.07           | 1700             | 16.20                  |
|            |               | 960                 | 8                            | 0.36           | 450              | 7.20                   | 0.46           | 626              | 7.20                   | 0.72           | 868              | 9.20                   | 1.37           | 1700             | 16.20                  |
|            |               | 725                 | 6                            | 0.28           | 450              | 7.20                   | 0.35           | 626              | 7.20                   | 0.55           | 883              | 9.20                   | 1.03           | 1700             | 16.20                  |
| 53         | 160           | 2900                | 18                           | 0.95           | 450              | 7.20                   | 1.24           | 626              | 7.20                   | 1.70           | 828              | 9.20                   | 3.39           | 1700             | 16.20                  |
|            |               | 1450                | 9                            | 0.47           | 450              | 7.20                   | 0.62           | 626              | 7.20                   | 0.89           | 868              | 9.20                   | 1.69           | 1700             | 16.20                  |
|            |               | 960                 | 6                            | 0.31           | 450              | 7.20                   | 0.41           | 626              | 7.20                   | 0.59           | 875              | 9.20                   | 1.12           | 1700             | 16.20                  |
|            |               | 725                 | 5                            | 0.24           | 450              | 7.20                   | 0.31           | 626              | 7.20                   | 0.45           | 888              | 9.20                   | 0.85           | 1720             | 16.20                  |
| 54         | 180           | 2900                | 16                           | 0.83           | 450              | 7.20                   | 1.06           | 626              | 7.20                   | 1.58           | 858              | 9.20                   | 3.10           | 1700             | 16.20                  |
|            |               | 1450                | 8                            | 0.42           | 450              | 7.20                   | 0.53           | 626              | 7.20                   | 0.80           | 868              | 9.20                   | 1.55           | 1700             | 16.20                  |
|            |               | 960                 | 5                            | 0.28           | 450              | 7.20                   | 0.35           | 626              | 7.20                   | 0.54           | 886              | 9.20                   | 1.02           | 1700             | 16.20                  |
|            |               | 725                 | 4                            | 0.21           | 450              | 7.20                   | 0.26           | 626              | 7.20                   | 0.41           | 888              | 9.20                   | 0.79           | 1730             | 16.20                  |
| 55         | 200           | 2900                | 15                           | 0.74           | 450              | 7.20                   | 0.94           | 626              | 7.20                   | 1.43           | 868              | 9.20                   | 2.70           | 1700             | 16.20                  |
|            |               | 1450                | 7                            | 0.37           | 450              | 7.20                   | 0.47           | 626              | 7.20                   | 0.71           | 868              | 9.20                   | 1.35           | 1700             | 16.20                  |
|            |               | 960                 | 5                            | 0.24           | 450              | 7.20                   | 0.31           | 626              | 7.20                   | 0.48           | 888              | 9.20                   | 0.90           | 1710             | 16.20                  |
|            |               | 725                 | 4                            | 0.18           | 450              | 7.20                   | 0.23           | 626              | 7.20                   | 0.36           | 888              | 9.20                   | 0.69           | 1750             | 16.20                  |

# Series M Gearboxes : Non motorised selection

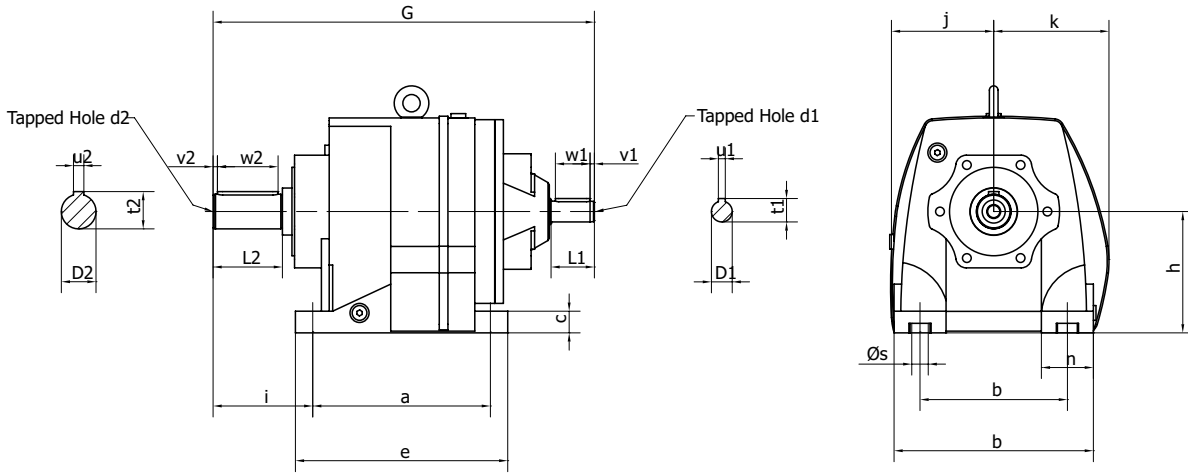
## TRIPLE REDUCTION RATINGS SIZES 865 - 868

| Ratio Code | Nominal Ratio | Input Speed Rev/Min | Nominal Output Speed Rev/Min | 865            |                  |                        | 866            |                  |                        | 867            |                  |                        | 868            |                  |                        |
|------------|---------------|---------------------|------------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|----------------|------------------|------------------------|
|            |               |                     |                              | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) | Input Power kW | Output Torque Nm | Overhung Load Fra (kN) |
| 41         | 40            | 2900                | 73                           | -              | -                | -                      | -              | -                | -                      | 35.00          | 4380             | 45.00                  | 58.10          | 75200            | 52.00                  |
|            |               | 1450                | 36                           | -              | -                | -                      | -              | -                | -                      | 21.90          | 5530             | 60.00                  | 37.50          | 9740             | 79.00                  |
|            |               | 960                 | 24                           | -              | -                | -                      | -              | -                | -                      | 15.60          | 5940             | 64.00                  | 26.60          | 10500            | 79.00                  |
|            |               | 725                 | 18                           | -              | -                | -                      | -              | -                | -                      | 12.30          | 6200             | 64.00                  | 21.30          | 11100            | 79.00                  |
| 42         | 45            | 2900                | 64                           | -              | -                | -                      | -              | -                | -                      | 38.90          | 5360             | 45.00                  | 62.70          | 9430             | 52.00                  |
|            |               | 1450                | 32                           | -              | -                | -                      | -              | -                | -                      | 22.20          | 6170             | 60.00                  | 36.40          | 11000            | 79.00                  |
|            |               | 960                 | 21                           | -              | -                | -                      | -              | -                | -                      | 15.10          | 6350             | 64.00                  | 24.10          | 11000            | 79.00                  |
|            |               | 725                 | 16                           | -              | -                | -                      | -              | -                | -                      | 11.40          | 6350             | 64.00                  | 18.20          | 11000            | 79.00                  |
| 43         | 50            | 2900                | 58                           | -              | -                | -                      | -              | -                | -                      | 35.00          | 5460             | 51.00                  | 58.10          | 9930             | 60.00                  |
|            |               | 1450                | 29                           | -              | -                | -                      | -              | -                | -                      | 20.10          | 6310             | 64.00                  | 32.10          | 11000            | 79.00                  |
|            |               | 960                 | 19                           | -              | -                | -                      | -              | -                | -                      | 13.40          | 6350             | 64.00                  | 21.20          | 11000            | 79.00                  |
|            |               | 725                 | 15                           | -              | -                | -                      | -              | -                | -                      | 10.10          | 6350             | 64.00                  | 16.00          | 11000            | 79.00                  |
| 44         | 56            | 2900                | 52                           | 11.20          | 2100             | 17.00                  | 17.90          | 3380             | 23.00                  | 29.60          | 5270             | 51.00                  | 46.70          | 8680             | 60.00                  |
|            |               | 1450                | 26                           | 6.84           | 2590             | 28.00                  | 9.94           | 3770             | 40.00                  | 17.30          | 6190             | 64.00                  | 28.10          | 10500            | 79.00                  |
|            |               | 960                 | 17                           | 4.62           | 2640             | 28.00                  | 6.57           | 3770             | 40.00                  | 11.40          | 6200             | 64.00                  | 19.70          | 11100            | 79.00                  |
|            |               | 725                 | 13                           | 3.49           | 2640             | 28.00                  | 4.95           | 3770             | 40.00                  | 8.63           | 6200             | 64.00                  | 14.80          | 11100            | 79.00                  |
| 45         | 63            | 2900                | 46                           | 10.40          | 2170             | 22.40                  | 16.60          | 3490             | 28.00                  | 26.80          | 5380             | 56.00                  | 44.00          | 9020             | 70.00                  |
|            |               | 1450                | 23                           | 6.29           | 2640             | 28.00                  | 8.95           | 3770             | 40.00                  | 15.30          | 6200             | 64.00                  | 26.00          | 10700            | 79.00                  |
|            |               | 960                 | 15                           | 4.16           | 2640             | 28.00                  | 5.91           | 3770             | 40.00                  | 10.10          | 6200             | 64.00                  | 17.80          | 11100            | 79.00                  |
|            |               | 725                 | 12                           | 3.14           | 2640             | 28.00                  | 4.46           | 3770             | 40.00                  | 7.66           | 6200             | 64.00                  | 13.50          | 11100            | 79.00                  |
| 46         | 71            | 2900                | 41                           | 10.10          | 2350             | 22.40                  | 16.40          | 3640             | 28.00                  | 26.60          | 5920             | 56.00                  | 44.80          | 11000            | 70.00                  |
|            |               | 1450                | 20                           | 6.10           | 2860             | 28.00                  | 9.85           | 4410             | 40.00                  | 14.20          | 6350             | 64.00                  | 22.30          | 11000            | 79.00                  |
|            |               | 960                 | 14                           | 4.03           | 2860             | 28.00                  | 6.51           | 4410             | 40.00                  | 9.39           | 6350             | 64.00                  | 14.80          | 11000            | 79.00                  |
|            |               | 725                 | 10                           | 3.04           | 2860             | 28.00                  | 4.91           | 4410             | 40.00                  | 7.09           | 6350             | 64.00                  | 11.10          | 11000            | 79.00                  |
| 47         | 80            | 2900                | 36                           | 9.38           | 2420             | 26.20                  | 15.20          | 3760             | 34.00                  | 24.10          | 6060             | 60.00                  | 40.70          | 11000            | 79.00                  |
|            |               | 1450                | 18                           | 5.49           | 2860             | 28.00                  | 8.87           | 4410             | 40.00                  | 12.60          | 6350             | 64.00                  | 20.30          | 11000            | 79.00                  |
|            |               | 960                 | 12                           | 3.63           | 2860             | 28.00                  | 5.86           | 4410             | 40.00                  | 8.33           | 6350             | 64.00                  | 13.40          | 11000            | 79.00                  |
|            |               | 725                 | 9                            | 2.74           | 2860             | 28.00                  | 4.42           | 4410             | 40.00                  | 6.29           | 6350             | 64.00                  | 10.10          | 11000            | 79.00                  |
| 48         | 90            | 2900                | 32                           | 8.15           | 2400             | 26.20                  | 12.60          | 3770             | 34.00                  | 20.90          | 5930             | 60.00                  | 34.40          | 10100            | 79.00                  |
|            |               | 1450                | 16                           | 4.46           | 2640             | 28.00                  | 6.27           | 3770             | 40.00                  | 10.90          | 6200             | 64.00                  | 18.80          | 11100            | 79.00                  |
|            |               | 960                 | 11                           | 2.95           | 2640             | 28.00                  | 4.15           | 3770             | 40.00                  | 7.21           | 6200             | 64.00                  | 12.40          | 11100            | 79.00                  |
|            |               | 725                 | 8                            | 2.23           | 2640             | 28.00                  | 3.13           | 3770             | 40.00                  | 5.44           | 6200             | 64.00                  | 9.39           | 11100            | 79.00                  |
| 49         | 100           | 2900                | 29                           | 7.60           | 2480             | 28.00                  | 10.90          | 3770             | 40.00                  | 19.20          | 6050             | 64.00                  | 32.20          | 10300            | 79.00                  |
|            |               | 1450                | 15                           | 4.04           | 2640             | 28.00                  | 5.45           | 3770             | 40.00                  | 9.79           | 6200             | 64.00                  | 17.30          | 11100            | 79.00                  |
|            |               | 960                 | 10                           | 2.67           | 2640             | 28.00                  | 3.60           | 3770             | 40.00                  | 6.48           | 6200             | 64.00                  | 11.50          | 11100            | 79.00                  |
|            |               | 725                 | 7                            | 2.02           | 2640             | 28.00                  | 2.72           | 3770             | 40.00                  | 4.89           | 6200             | 64.00                  | 8.66           | 11100            | 79.00                  |
| 50         | 112           | 2900                | 26                           | 7.36           | 2690             | 28.00                  | 11.80          | 4180             | 40.00                  | 18.00          | 6350             | 64.00                  | 28.30          | 11000            | 79.00                  |
|            |               | 1450                | 13                           | 3.89           | 2860             | 28.00                  | 6.22           | 4410             | 40.00                  | 8.95           | 6350             | 64.00                  | 14.10          | 11000            | 79.00                  |
|            |               | 960                 | 9                            | 2.57           | 2860             | 28.00                  | 4.11           | 4410             | 40.00                  | 5.92           | 6350             | 64.00                  | 9.34           | 11000            | 79.00                  |
|            |               | 725                 | 6                            | 1.94           | 2860             | 28.00                  | 3.10           | 4410             | 40.00                  | 4.47           | 6350             | 64.00                  | 7.05           | 11000            | 79.00                  |
| 51         | 125           | 2900                | 23                           | 6.86           | 2770             | 28.00                  | 10.70          | 4360             | 40.00                  | 16.10          | 6350             | 64.00                  | 26.10          | 11000            | 79.00                  |
|            |               | 1450                | 12                           | 3.52           | 2860             | 28.00                  | 5.40           | 4410             | 40.00                  | 8.04           | 6350             | 64.00                  | 13.00          | 11000            | 79.00                  |
|            |               | 960                 | 8                            | 2.33           | 2860             | 28.00                  | 3.57           | 4410             | 40.00                  | 5.32           | 6350             | 64.00                  | 8.61           | 11000            | 79.00                  |
|            |               | 725                 | 6                            | 1.76           | 2860             | 28.00                  | 2.70           | 4410             | 40.00                  | 4.02           | 6350             | 64.00                  | 6.50           | 11000            | 79.00                  |
| 52         | 140           | 2900                | 21                           | 5.46           | 2470             | 28.00                  | 9.82           | 4160             | 40.00                  | 15.00          | 6460             | 64.00                  | 22.90          | 10100            | 79.00                  |
|            |               | 1450                | 10                           | 2.71           | 2470             | 28.00                  | 4.89           | 4160             | 40.00                  | 7.47           | 6460             | 64.00                  | 11.40          | 10100            | 79.00                  |
|            |               | 960                 | 7                            | 1.79           | 2470             | 28.00                  | 3.23           | 4170             | 40.00                  | 4.94           | 6460             | 64.00                  | 7.54           | 10100            | 79.00                  |
|            |               | 725                 | 5                            | 1.35           | 2470             | 28.00                  | 2.44           | 4170             | 40.00                  | 3.73           | 6460             | 64.00                  | 5.69           | 10100            | 79.00                  |
| 53         | 160           | 2900                | 18                           | 4.94           | 2470             | 28.00                  | 8.53           | 4160             | 40.00                  | 13.50          | 6460             | 64.00                  | 21.10          | 10100            | 79.00                  |
|            |               | 1450                | 9                            | 2.46           | 2470             | 28.00                  | 4.25           | 4170             | 40.00                  | 6.71           | 6460             | 64.00                  | 10.50          | 10100            | 79.00                  |
|            |               | 960                 | 6                            | 1.62           | 2470             | 28.00                  | 2.81           | 4170             | 40.00                  | 4.44           | 6460             | 64.00                  | 6.95           | 10100            | 79.00                  |
|            |               | 725                 | 5                            | 1.23           | 2480             | 28.00                  | 2.13           | 4200             | 40.00                  | 3.35           | 6460             | 64.00                  | 5.25           | 10100            | 79.00                  |
| 54         | 180           | 2900                | 16                           | 5.15           | 2860             | 28.00                  | 8.03           | 4410             | 40.00                  | 11.70          | 6350             | 64.00                  | 19.00          | 11000            | 79.00                  |
|            |               | 1450                | 8                            | 2.57           | 2860             | 28.00                  | 4.00           | 4410             | 40.00                  | 5.86           | 6350             | 64.00                  | 9.49           | 11000            | 79.00                  |
|            |               | 960                 | 5                            | 1.70           | 2860             | 28.00                  | 2.65           | 4410             | 40.00                  | 3.88           | 6350             | 64.00                  | 6.28           | 11000            | 79.00                  |
|            |               | 725                 | 4                            | 1.28           | 2860             | 28.00                  | 2.00           | 4410             | 40.00                  | 2.93           | 6350             | 64.00                  | 4.74           | 11000            | 79.00                  |
| 55         | 200           | 2900                | 15                           | 4.59           | 2860             | 28.00                  | 7.48           | 4410             | 40.00                  | 11.00          | 6350             | 64.00                  | 17.00          | 11000            | 79.00                  |
|            |               | 1450                | 7                            | 2.29           | 2860             | 28.00                  | 3.73           | 4410             | 40.00                  | 5.50           | 6350             | 64.00                  | 8.48           | 11000            | 79.00                  |
|            |               | 960                 | 5                            | 1.51           | 2860             | 28.00                  | 2.47           | 4410             | 40.00                  | 3.64           | 6350             | 64.00                  | 5.61           | 11000            | 79.00                  |
|            |               | 725                 | 4                            | 1.14           | 2860             | 28.00                  | 1.86           | 4410             | 40.00                  | 2.75           | 6350             | 64.00                  | 4.23           | 11000            | 79.00                  |
| 56         | 225           | 2900                | 13                           | 3.59           | 2470             | 28.00                  | 6.31           | 4160             | 40.00                  | 9.80           | 6460             | 64.00                  | 15.40          | 10100            | 79.00                  |
|            |               | 1450                | 6                            | 1.79           | 2470             | 28.00                  | 3.15           | 4170             | 40.00                  | 4.89           | 6460             | 64.00                  | 7.66           | 10100            | 79.00                  |
|            |               | 960                 | 4                            | 1.19           | 2480             | 28.00                  | 2.10           | 4210             | 40.00                  | 3.23           | 6460             | 64.00                  | 5.07           | 10100            | 79.00                  |
|            |               | 725                 | 3                            | 0.89           | 2480             | 28.00                  | 1.61           | 4270             | 40.00                  | 2.44           | 6460             | 64.00                  | 3.83           | 10100            | 79.00                  |
| 57         | 250           | 2900                | 12                           | 3.20           | 2470             | 28.00                  | 5.88           | 4160             | 40.00                  | 9.21           | 6460             | 64.00                  | 13.70          | 10100            | 79.00                  |
|            |               | 1450                | 6                            | 1.59           | 2470             | 28.00                  | 2.93           | 4170             | 40.00                  | 4.59           | 6460             | 64.00                  | 6.84           | 10100            | 79.00                  |
|            |               | 960                 | 4                            | 1.06           | 2480             | 28.00                  | 1.97           | 4240             | 40.00                  | 3.04           | 6460             | 64.00                  | 4.53           | 10100            | 79.00                  |
|            |               | 725                 | 3                            | 0.80           | 2480             | 28.00                  | 1.50           | 4270             | 40.00                  | 2.29           | 6460             | 64.00                  | 3.42           | 10100            | 79.00                  |

## Series M Gearboxes : Dimensions Non Motorised

### Foot Mounted - Non Motorised

Double/Triple reduction



| Unit Size | a   | b   | c  | e   | f   | h*  | i   | j   | k   | n   | p   | s  | Output Shaft Dimensions |     |       |    |    |     |                      |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------------------------|-----|-------|----|----|-----|----------------------|
|           |     |     |    |     |     |     |     |     |     |     |     |    | D2                      | L2  | t2    | u2 | v2 | w2  | d2                   |
| 860       | 110 | 110 | 12 | 131 | 135 | 75  | 58  | 76  | 76  | 25  | 149 | 10 | Ø20 k6                  | 40  | 22.5  | 6  | 4  | 32  | M6 x 1.0 x 16 deep   |
| 801       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 35  | 180 | 10 | Ø25 k6                  | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 861       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 35  | 180 | 10 | Ø25 k6                  | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 802       | 165 | 135 | 20 | 200 | 190 | 115 | 90  | 97  | 107 | 55  | 208 | 15 | Ø30 k6                  | 60  | 33.0  | 8  | 4  | 50  | M10 x 1.5 x 22 deep  |
| 862       | 165 | 135 | 20 | 200 | 190 | 115 | 100 | 97  | 107 | 55  | 208 | 15 | Ø35 k6                  | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 803       | 195 | 150 | 24 | 235 | 210 | 130 | 100 | 110 | 110 | 60  | 214 | 15 | Ø35 k6                  | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 863       | 205 | 170 | 25 | 245 | 230 | 140 | 115 | 119 | 133 | 60  | 250 | 19 | Ø40 k6                  | 80  | 43.0  | 12 | 5  | 70  | M16 x 2.0 x 36 deep  |
| 864       | 260 | 215 | 35 | 310 | 290 | 180 | 140 | 167 | 153 | 75  | 310 | 19 | Ø50 k6                  | 100 | 53.5  | 14 | 10 | 80  | M16 x 2.0 x 36 deep  |
| 865       | 310 | 250 | 40 | 365 | 340 | 225 | 160 | 200 | 172 | 90  | 394 | 23 | Ø60 m6                  | 120 | 64.0  | 18 | 10 | 100 | M20 x 2.5 x 42 deep  |
| 866       | 370 | 290 | 45 | 440 | 400 | 250 | 185 | 225 | 203 | 110 | 446 | 27 | Ø70 m6                  | 140 | 74.5  | 20 | 15 | 110 | M20 x 2.5 x 42 deep  |
| 867       | 410 | 340 | 50 | 490 | 450 | 265 | 220 | 242 | 228 | 110 | 483 | 34 | Ø90 m6                  | 170 | 95.0  | 25 | 15 | 140 | M24 x 3.0 x 50 deep  |
| 868       | 500 | 380 | 50 | 590 | 530 | 300 | 260 | 278 | 268 | 150 | 551 | 41 | Ø100 m6                 | 210 | 106.0 | 28 | 15 | 180 | M24 x 3.0 x 50 deep  |

### Input Shaft

| Unit Size |        | Input Shaft Dimensions |     |      |    |    |    |                      | G    | kg ** |
|-----------|--------|------------------------|-----|------|----|----|----|----------------------|------|-------|
|           |        | D1                     | L1  | t1   | u1 | v1 | w1 | d1                   |      |       |
| 860       | Double | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 286  | 8.2   |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 301  | 8.8   |
| 801       | Double | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 317  | 12    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 330  | 13    |
| 861       | Double | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 317  | 12    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 330  | 13    |
| 802       | Double | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 369  | 22    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 377  | 24    |
| 862       | Double | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 379  | 22    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 387  | 24    |
| 803       | Double | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 400  | 27    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 408  | 29    |
| 863       | Double | 24 k6                  | 50  | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep  | 440  | 38    |
|           | Triple | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 452  | 39    |
| 864       | Double | 28 k6                  | 60  | 31.0 | 8  | 5  | 50 | M10 x 1.5 x 22 deep  | 555  | 67    |
|           | Triple | 24 k6                  | 50  | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep  | 540  | 74    |
| 865       | Double | 38 k6                  | 80  | 41.0 | 10 | 5  | 70 | M12 x 1.75 x 28 deep | 660  | 114   |
|           | Triple | 28 k6                  | 60  | 31.0 | 8  | 5  | 50 | M10 x 1.5 x 22 deep  | 662  | 123   |
| 866       | Double | 42 k6                  | 110 | 45.0 | 12 | 10 | 70 | M16 x 2.0 x 36 deep  | 782  | 170   |
|           | Triple | 38 k6                  | 80  | 41.0 | 10 | 5  | 70 | M12 x 1.75 x 28 deep | 784  | 179   |
| 867       | Double | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 907  | 248   |
|           | Triple | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 969  | 270   |
| 868       | Double | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 1022 | 360   |
|           | Triple | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 1094 | 405   |

\* The input on the 803 unit is 14.5mm lower than the output

\*\* All weights are approximate and exclude lubricant and packing

### Fixing Bolts

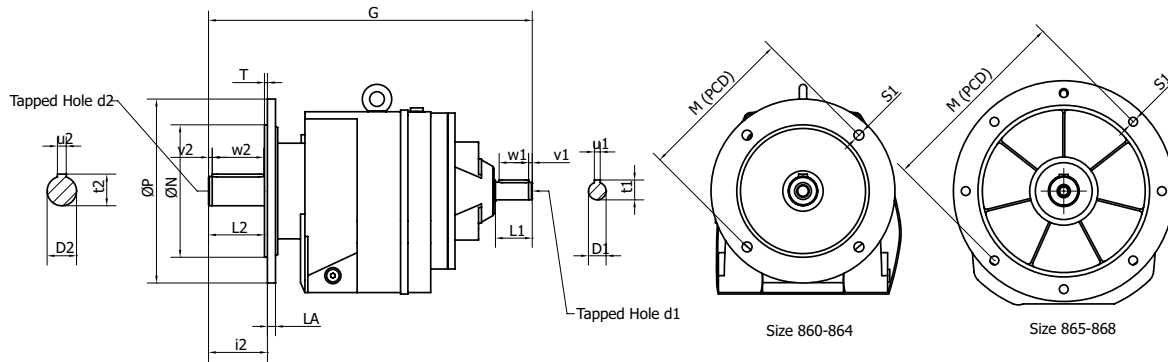
| Unit Size | Fasteners & Tightening Torque |
|-----------|-------------------------------|
| 860       | Size 4 x M8 x 25mm long       |
|           | Nm Tighten to - 25Nm          |
| 801       | Size 4 x M8 x 30mm long       |
|           | Nm Tighten to - 25Nm          |
| 861       | Size 4 x M8 x 30mm long       |
|           | Nm Tighten to - 25Nm          |
| 802       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 862       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 803       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 863       | Size 4 x M16 x 45mm long      |
|           | Nm Tighten to - 200Nm         |
| 864       | Size 4 x M16 x 60mm long      |
|           | Nm Tighten to - 200Nm         |
| 865       | Size 4 x M20 x 70mm long      |
|           | Nm Tighten to - 350Nm         |
| 866       | Size 4 x M24 x 80mm long      |
|           | Nm Tighten to - 610Nm         |
| 867       | Size 4 x M30 x 90mm long      |
|           | Nm Tighten to - 1220Nm        |
| 868       | Size 4 x M36 x 100mm long     |
|           | Nm Tighten to - 2150Nm        |



# Series M Gearboxes : Dimensions non motorised

## Flange Mounted - Non Motorised

Double/Triple reduction



| Unit Size | R   | V   | FLANGE DIMENSIONS * |     |     |     |      |    | OUTPUT SHAFT DIMENSIONS |     |      |    |    |     | Optional Flanges (P) |     |     |     |
|-----------|-----|-----|---------------------|-----|-----|-----|------|----|-------------------------|-----|------|----|----|-----|----------------------|-----|-----|-----|
|           |     |     | ØP                  | N   | T   | M   | S1   | LA | D2                      | L2  | t2   | u2 | v2 | w2  |                      |     |     | d2  |
| 860       | 76  | 74  | 160                 | 110 | 3.5 | 130 | 9.0  | 10 | Ø20 k6                  | 40  | 22.5 | 6  | 4  | 32  | M6 x 1.0 x 16 deep   | 120 | 140 | 200 |
| 801       | 91  | 90  | 160                 | 110 | 3.5 | 130 | 9.0  | 10 | Ø25 k6                  | 50  | 28.0 | 8  | 4  | 40  | M10 x 1.5 x 22 deep  | 120 | 140 | 200 |
| 861       | 91  | 90  | 200                 | 130 | 3.5 | 165 | 11.0 | 10 | Ø25 k6                  | 50  | 28.0 | 8  | 4  | 40  | M10 x 1.5 x 22 deep  | 120 | 140 | 160 |
| 802       | 115 | 93  | 200                 | 130 | 3.5 | 165 | 11.0 | 11 | Ø30 k6                  | 60  | 33.0 | 8  | 4  | 50  | M10 x 1.5 x 22 deep  | 140 | 160 | 250 |
| 862       | 115 | 93  | 250                 | 180 | 4.0 | 215 | 13.5 | 11 | Ø35 k6                  | 70  | 38.0 | 10 | 7  | 60  | M12 x 1.75 x 28 deep | 140 | 160 | 200 |
| 803       | 130 | 84  | 250                 | 180 | 4.0 | 215 | 13.5 | 11 | Ø35 k6                  | 70  | 38.0 | 10 | 7  | 60  | M12 x 1.75 x 28 deep | 200 | 300 | -   |
| 863       | 140 | 110 | 300                 | 230 | 4.0 | 265 | 13.5 | 11 | Ø40 k6                  | 80  | 43.0 | 12 | 5  | 70  | M16 x 2.0 x 36 deep  | 200 | 250 | -   |
| 864       | 182 | 130 | 350                 | 250 | 5.0 | 300 | 17.5 | 17 | Ø50 k6                  | 100 | 53.5 | 14 | 10 | 80  | M16 x 2.0 x 36 deep  | 300 | -   | -   |
| 865       | 230 | 230 | 450                 | 350 | 5.0 | 400 | 18.0 | 18 | Ø60 m6                  | 120 | 64.0 | 18 | 10 | 100 | M20 x 2.5 x 42 deep  | -   | -   | -   |
| 866       | 260 | 260 | 450                 | 350 | 5.0 | 400 | 18.0 | 22 | Ø70 m6                  | 140 | 74.5 | 20 | 15 | 110 | M20 x 2.5 x 42 deep  | -   | -   | -   |
| 867       | 278 | 278 | 550                 | 450 | 5.0 | 500 | 18.0 | 25 | Ø90 m6                  | 170 | 95.0 | 25 | 15 | 140 | M24 x 3.0 x 50 deep  | -   | -   | -   |
| 868       | 318 | 318 | 550                 | 450 | 5.0 | 500 | 18.0 | 25 | Ø100 m6                 | 210 | 106  | 28 | 15 | 180 | M24 x 3.0 x 50 deep  | -   | -   | -   |

\* Units are shown with Standard Flange size - see table below for optional flange dimensions

### Input Shaft

| Unit Size |        | Input Shaft Dimensions |     |      |    |    |    |                      | G    | kg ** |
|-----------|--------|------------------------|-----|------|----|----|----|----------------------|------|-------|
|           |        | D1                     | L1  | t1   | u1 | v1 | w1 | d1                   |      |       |
| 860       | Double | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 286  | 8.2   |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 301  | 8.8   |
| 801       | Double | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 317  | 12    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 330  | 13    |
| 861       | Double | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 317  | 12    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 330  | 13    |
| 802       | Double | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 369  | 22    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 377  | 24    |
| 862       | Double | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 379  | 22    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 387  | 24    |
| 803       | Double | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 400  | 27    |
|           | Triple | 16 k6                  | 40  | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep   | 408  | 29    |
| 863       | Double | 24 k6                  | 50  | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep  | 440  | 38    |
|           | Triple | 19 k6                  | 40  | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep   | 452  | 39    |
| 864       | Double | 28 k6                  | 60  | 31.0 | 8  | 5  | 50 | M10 x 1.5 x 22 deep  | 555  | 67    |
|           | Triple | 24 k6                  | 50  | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep  | 540  | 74    |
| 865       | Double | 38 k6                  | 80  | 41.0 | 10 | 5  | 70 | M12 x 1.75 x 28 deep | 660  | 114   |
|           | Triple | 28 k6                  | 60  | 31.0 | 8  | 5  | 50 | M10 x 1.5 x 22 deep  | 662  | 123   |
| 866       | Double | 42 k6                  | 110 | 45.0 | 12 | 10 | 70 | M16 x 2.0 x 36 deep  | 782  | 170   |
|           | Triple | 38 k6                  | 80  | 41.0 | 10 | 5  | 70 | M12 x 1.75 x 28 deep | 784  | 179   |
| 867       | Double | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 907  | 248   |
|           | Triple | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 969  | 270   |
| 868       | Double | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 1022 | 360   |
|           | Triple | 55 m6                  | 110 | 59.0 | 16 | 10 | 90 | M20 x 2.5 x 42 deep  | 1094 | 405   |

\*\* All weights are approximate and exclude lubricant and packing

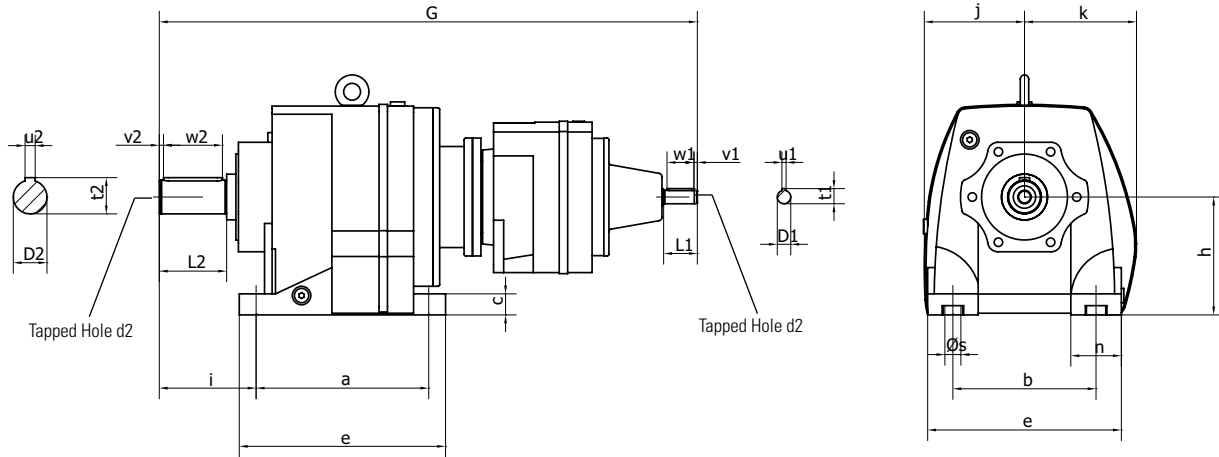
### Optional Flange Dimensions

|    | 120 | 140 | 160 | 200  | 250  | 300  |
|----|-----|-----|-----|------|------|------|
| ØP | 80  | 95  | 110 | 130  | 180  | 230  |
| N  | 3.0 | 3.0 | 3.5 | 3.5  | 4.0  | 4.0  |
| T  | 100 | 115 | 130 | 165  | 215  | 265  |
| M  | 6.6 | 9.0 | 9.0 | 11.0 | 13.5 | 13.5 |
| S1 | 9   | 9   | 10  | 10   | 11   | 11   |
| LA |     |     |     |      |      |      |

## Series M Gearboxes : Dimensions Non Motorised

### Foot Mounted - Non Motorised

Quadruple/Quintuple reduction



| Unit Size | a   | b   | c  | e   | f   | h*  | i   | j   | k   | n   | p   | s  | Output Shaft Dimensions |     |       |    |    |     |                      |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------------------------|-----|-------|----|----|-----|----------------------|
|           |     |     |    |     |     |     |     |     |     |     |     |    | D2                      | L2  | t2    | u2 | v2 | w2  | d2                   |
| 861       | 130 | 110 | 16 | 152 | 145 | 90  | 75  | 84  | 86  | 35  | 180 | 10 | Ø25 k6                  | 50  | 28.0  | 8  | 4  | 40  | M10 x 1.5 x 22 deep  |
| 802       | 165 | 135 | 20 | 200 | 190 | 115 | 90  | 97  | 107 | 55  | 208 | 15 | Ø30 k6                  | 60  | 33.0  | 8  | 4  | 50  | M10 x 1.5 x 22 deep  |
| 862       | 165 | 135 | 20 | 200 | 190 | 115 | 100 | 97  | 107 | 55  | 208 | 15 | Ø35 k6                  | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 803       | 195 | 150 | 24 | 235 | 210 | 130 | 100 | 110 | 110 | 60  | 214 | 15 | Ø35 k6                  | 70  | 38.0  | 10 | 7  | 60  | M12 x 1.75 x 28 deep |
| 863       | 205 | 170 | 25 | 245 | 230 | 140 | 115 | 119 | 133 | 60  | 250 | 19 | Ø40 k6                  | 80  | 43.0  | 12 | 5  | 70  | M16 x 2.0 x 36 deep  |
| 864       | 260 | 215 | 35 | 310 | 290 | 180 | 140 | 167 | 153 | 75  | 310 | 19 | Ø50 k6                  | 100 | 53.5  | 14 | 10 | 80  | M16 x 2.0 x 36 deep  |
| 865       | 310 | 250 | 40 | 365 | 340 | 225 | 160 | 200 | 172 | 90  | 394 | 23 | Ø60 m6                  | 120 | 64.0  | 18 | 10 | 100 | M20 x 2.5 x 42 deep  |
| 866       | 370 | 290 | 45 | 440 | 400 | 250 | 185 | 225 | 203 | 110 | 446 | 27 | Ø70 m6                  | 140 | 74.5  | 20 | 15 | 110 | M20 x 2.5 x 42 deep  |
| 867       | 410 | 340 | 50 | 490 | 450 | 265 | 220 | 242 | 228 | 110 | 483 | 34 | Ø90 m6                  | 170 | 95.0  | 25 | 15 | 140 | M24 x 3.0 x 50 deep  |
| 868       | 500 | 380 | 50 | 590 | 530 | 300 | 260 | 278 | 268 | 150 | 551 | 41 | Ø100 m6                 | 210 | 106.0 | 28 | 15 | 180 | M24 x 3.0 x 50 deep  |

### Input Shaft

| Unit Size |           | Input Shaft Dimensions |    |      |    |    |    |                     | G    | kg ** |
|-----------|-----------|------------------------|----|------|----|----|----|---------------------|------|-------|
|           |           | D1                     | L1 | t1   | u1 | v1 | w1 | d1                  |      |       |
| 861       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 503  | 21    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 518  | 22    |
| 802       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 571  | 33    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 584  | 34    |
| 862       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 581  | 35    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 594  | 36    |
| 803       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 602  | 40    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 615  | 41    |
| 863       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 639  | 48    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 651  | 52    |
| 864       | Quadruple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 751  | 96    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 759  | 98    |
| 865       | Quadruple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 832  | 140   |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 840  | 143   |
| 866       | Quadruple | 24 k6                  | 50 | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep | 956  | 204   |
|           | Quintuple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 968  | 209   |
| 867       | Quadruple | 24 k6                  | 50 | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep | 1077 | 279   |
|           | Quintuple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 1089 | 285   |
| 868       | Quadruple | 24 k6                  | 50 | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep | 1192 | 395   |
|           | Quintuple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 1204 | 401   |

\* The input on the 803 unit is 14.5mm lower than the output

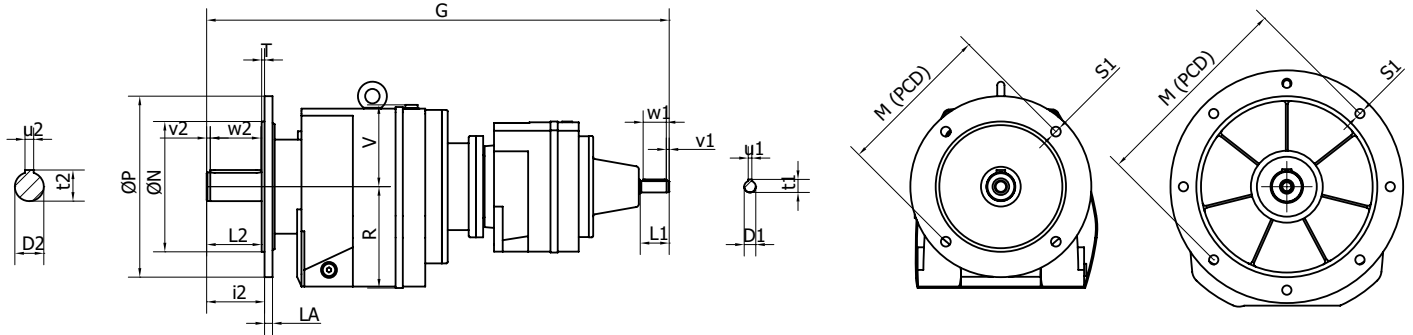
\*\* All weights are approximate and exclude lubricant and packing

### Fixing Bolts

| Unit Size | Fasteners & Tightening Torque |
|-----------|-------------------------------|
| 861       | Size 4 x M8 x 30mm long       |
|           | Nm Tighten to - 25Nm          |
| 802       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 862       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 803       | Size 4 x M12 x 40mm long      |
|           | Nm Tighten to - 85Nm          |
| 863       | Size 4 x M16 x 45mm long      |
|           | Nm Tighten to - 200Nm         |
| 864       | Size 4 x M16 x 60mm long      |
|           | Nm Tighten to - 200Nm         |
| 865       | Size 4 x M20 x 70mm long      |
|           | Nm Tighten to - 350Nm         |
| 866       | Size 4 x M24 x 80mm long      |
|           | Nm Tighten to - 610Nm         |
| 867       | Size 4 x M30 x 90mm long      |
|           | Nm Tighten to - 1220Nm        |
| 868       | Size 4 x M36 x 100mm long     |
|           | Nm Tighten to - 2150Nm        |

# Series M Gearboxes : Dimensions non motorised

## Flange Mounted - Non Motorised Quadruple/Quintuple reduction



| Unit Size | R   | V   | Flange Dimensions * |     |     |     |      |    | Output Shaft Dimensions |     |      |    |    |     | Optional Flanges (P)* |     |     |     |
|-----------|-----|-----|---------------------|-----|-----|-----|------|----|-------------------------|-----|------|----|----|-----|-----------------------|-----|-----|-----|
|           |     |     | ØP                  | N   | T   | M   | S1   | LA | D                       | L   | t1   | u1 | v1 | w1  |                       |     |     | d1  |
| 861       | 91  | 90  | 200                 | 130 | 3.5 | 165 | 11.0 | 10 | Ø25 k6                  | 50  | 28.0 | 8  | 4  | 40  | M10 x 1.5 x 22 deep   | 120 | 140 | 160 |
| 802       | 115 | 93  | 200                 | 130 | 3.5 | 165 | 11.0 | 11 | Ø30 k6                  | 60  | 33.0 | 8  | 4  | 50  | M10 x 1.5 x 22 deep   | 140 | 160 | 250 |
| 862       | 115 | 93  | 250                 | 180 | 4.0 | 215 | 13.5 | 11 | Ø35 k6                  | 70  | 38.0 | 10 | 7  | 60  | M12 x 1.75 x 28 deep  | 140 | 160 | 200 |
| 803       | 130 | 84  | 250                 | 180 | 4.0 | 215 | 13.5 | 11 | Ø35 k6                  | 70  | 38.0 | 10 | 7  | 60  | M12 x 1.75 x 28 deep  | 200 | 300 | -   |
| 863       | 140 | 110 | 300                 | 230 | 4.0 | 265 | 13.5 | 11 | Ø40 k6                  | 80  | 43.0 | 12 | 5  | 70  | M16 x 2.0 x 36 deep   | 200 | 250 | -   |
| 864       | 182 | 130 | 350                 | 250 | 5.0 | 300 | 17.5 | 17 | Ø50 k6                  | 100 | 53.5 | 14 | 10 | 80  | M16 x 2.0 x 36 deep   | 300 | -   | -   |
| 865       | 230 | 230 | 450                 | 350 | 5.0 | 400 | 18.0 | 18 | Ø60 m6                  | 120 | 64.0 | 18 | 10 | 100 | M20 x 2.5 x 42 deep   | -   | -   | -   |
| 866       | 260 | 260 | 450                 | 350 | 5.0 | 400 | 18.0 | 22 | Ø70 m6                  | 140 | 74.5 | 20 | 15 | 110 | M20 x 2.5 x 42 deep   | -   | -   | -   |
| 867       | 278 | 278 | 550                 | 450 | 5.0 | 500 | 18.0 | 25 | Ø90 m6                  | 170 | 95.0 | 25 | 15 | 140 | M24 x 3.0 x 50 deep   | -   | -   | -   |
| 868       | 318 | 318 | 550                 | 450 | 5.0 | 500 | 18.0 | 25 | Ø100 m6                 | 210 | 106  | 28 | 15 | 180 | M24 x 3.0 x 50 deep   | -   | -   | -   |

\*Units are shown with standard flange size - see table for optional flange dimensions

### Input Shaft

| Unit Size |           | Input Shaft Dimensions |    |      |    |    |    |                     | G    | kg ** |
|-----------|-----------|------------------------|----|------|----|----|----|---------------------|------|-------|
|           |           | D1                     | L1 | t1   | u1 | v1 | w1 | d1                  |      |       |
| 861       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 503  | 21    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 518  | 22    |
| 802       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 571  | 33    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 584  | 34    |
| 862       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 581  | 35    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 594  | 36    |
| 803       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 602  | 40    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 615  | 41    |
| 863       | Quadruple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 639  | 48    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 651  | 52    |
| 864       | Quadruple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 751  | 96    |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 759  | 98    |
| 865       | Quadruple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 832  | 140   |
|           | Quintuple | 16 k6                  | 40 | 18.0 | 5  | 4  | 32 | M5 x 0.8 x 12 deep  | 840  | 143   |
| 866       | Quadruple | 24 k6                  | 50 | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep | 956  | 204   |
|           | Quintuple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 968  | 209   |
| 867       | Quadruple | 24 k6                  | 50 | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep | 1077 | 279   |
|           | Quintuple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 1089 | 285   |
| 868       | Quadruple | 24 k6                  | 50 | 27.0 | 8  | 5  | 40 | M8 x 1.25 x 19 deep | 1192 | 395   |
|           | Quintuple | 19 k6                  | 40 | 21.5 | 6  | 4  | 32 | M6 x 1.0 x 16 deep  | 1204 | 401   |

### Optional Flange Dimensions

|    | ØP  | 120 | 140 | 160  | 200  | 250  | 300 |
|----|-----|-----|-----|------|------|------|-----|
| N  | 80  | 95  | 110 | 130  | 180  | 230  |     |
| T  | 3.0 | 3.0 | 3.5 | 3.5  | 4.0  | 4.0  |     |
| M  | 100 | 115 | 130 | 165  | 215  | 265  |     |
| S1 | 6.6 | 9.0 | 9.0 | 11.0 | 13.5 | 13.5 |     |
| LA | 9   | 9   | 10  | 10   | 11   | 11   |     |

## Series M Gearboxes : Exact Gear Ratios

DOUBLE, TRIPLE, QUADRUPLE AND QUINTUPLE REDUCTION RATIOS – nominal output speeds based on an input speed of 1440 rev/min

| Code | Nominal Output Speed Rev/Min | 860     | 801     | 861     | 802     | 862     | 803     | 863     | 864     | 865     | 866     | 867     | 868     |
|------|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 01   | 1029                         | -       | -       | -       | -       | -       | -       | -       | -       | 1.479   | 1.442   | -       | -       |
| 02   | 800                          | -       | -       | -       | -       | -       | -       | -       | -       | 2.036   | 2.015   | -       | -       |
| 03   | 655                          | -       | -       | -       | -       | -       | -       | -       | -       | 2.282   | 2.191   | -       | -       |
| 04   | 576                          | -       | -       | -       | -       | -       | -       | -       | -       | 2.562   | 2.489   | -       | -       |
| 05   | 514                          | -       | -       | -       | -       | -       | -       | -       | -       | 2.969   | 2.992   | 2.904   | 2.888   |
| 06   | 450                          | -       | -       | -       | -       | -       | -       | -       | -       | 3.301   | 3.242   | 3.189   | 3.247   |
| 07   | 400                          | -       | -       | -       | -       | -       | -       | -       | -       | 3.688   | 3.500   | 3.638   | 3.822   |
| 08   | 360                          | -       | -       | -       | -       | -       | -       | -       | -       | 4.088   | 4.179   | 4.025   | 4.029   |
| 09   | 400                          | 3.750   | 3.589   | 3.589   | 3.585   | 3.585   | -       | 3.678   | 3.678   | 4.582   | 4.545   | 4.421   | 4.537   |
| 10   | 288                          | 5.066   | 5.034   | 5.034   | 5.040   | 5.040   | 4.438   | 5.094   | 5.214   | 5.073   | 4.938   | 5.042   | 5.333   |
| 11   | 257                          | 5.762   | 5.547   | 5.547   | 5.649   | 5.649   | 6.240   | 5.722   | 5.792   | 5.686   | 5.370   | 5.538   | 6.005   |
| 12   | 229                          | 6.528   | 6.299   | 6.299   | 6.341   | 6.341   | 6.994   | 6.292   | 6.442   | 6.628   | 6.724   | 6.210   | 6.548   |
| 13   | 203                          | -       | -       | -       | -       | -       | -       | -       | -       | 7.404   | 7.260   | 6.879   | 7.270   |
| 14   | 180                          | 8.348   | 8.000   | 8.000   | 8.053   | 8.053   | 7.851   | 8.218   | 8.330   | 8.224   | 7.945   | 7.779   | 8.667   |
| 15   | 160                          | 8.997   | 9.088   | 9.088   | 9.129   | 9.129   | 9.970   | 9.344   | 9.352   | 9.188   | 8.578   | 8.618   | 9.623   |
| 16   | 144                          | -       | -       | -       | -       | -       | -       | -       | -       | 10.266  | 10.587  | 9.891   | 10.065  |
| 17   | 131                          | 11.359  | 11.154  | 11.154  | 10.887  | 10.887  | 11.302  | 11.346  | 11.469  | 11.705  | 11.984  | 11.200  | 11.429  |
| 18   | 120                          | 12.877  | 12.371  | 12.371  | 12.536  | 12.536  | 13.479  | 12.481  | 12.923  | 12.739  | 12.509  | 12.391  | 13.322  |
| 19   | 103                          | 14.715  | 14.054  | 14.054  | 14.580  | 14.580  | 15.520  | 14.342  | 15.043  | 14.525  | 14.161  | 14.031  | 15.127  |
| 20   | 90                           | 16.369  | 15.968  | 15.968  | 16.312  | 16.312  | 18.051  | 16.263  | 16.686  | 16.591  | 16.426  | 15.969  | 16.429  |
| 21   | 80                           | 18.047  | 17.584  | 17.584  | 17.386  | 17.386  | 20.196  | 17.938  | 18.261  | 18.433  | 18.253  | 18.000  | 18.112  |
| 22   | 72                           | 19.861  | 20.226  | 20.226  | 20.605  | 20.605  | 21.526  | 20.543  | 20.659  | 20.588  | 19.409  | 20.005  | 21.745  |
| 23   | 65                           | 23.269  | 21.989  | 21.989  | 22.000  | 22.000  | 25.511  | 23.226  | 23.320  | 22.874  | 21.568  | 22.549  | 23.974  |
| 24   | 58                           | -       | -       | -       | -       | -       | -       | -       | -       | 26.037  | 26.029  | 25.455  | 26.071  |
| 25   | 51                           | 27.917  | 26.397  | 26.397  | 27.300  | 27.300  | 27.238  | 26.928  | 28.269  | 28.744  | 29.992  | 28.350  | 28.247  |
| 26   | 45                           | 32.542  | 31.677  | 31.677  | 32.192  | 32.192  | 33.800  | 32.118  | 32.967  | 32.310  | 30.756  | 31.888  | 34.509  |
| 27   | 40                           | 36.157  | 35.692  | 35.692  | 35.250  | 35.250  | 39.857  | 35.173  | 36.213  | 35.669  | 35.438  | 35.515  | 37.388  |
| 28   | 36                           | -       | -       | -       | -       | -       | -       | -       | -       | 40.252  | 37.059  | 39.008  | 39.420  |
| 29   | 32                           | 43.542  | 41.492  | 41.492  | 43.200  | 43.200  | 43.643  | 42.208  | 44.379  | 44.438  | 42.700  | 43.445  | 42.709  |
| 30   | 29                           | 49.907  | 47.094  | 47.094  | 48.150  | 48.150  | 53.486  | 48.562  | 48.462  | 49.069  | 47.929  | 48.629  | 51.273  |
| 31   | 26                           | 56.719  | 53.538  | 53.538  | 54.000  | 54.000  | 59.614  | 53.957  | 55.804  | 55.176  | 51.494  | 51.738  | 57.515  |
| 32   | 23                           | -       | -       | -       | -       | -       | 66.857  | -       | -       | 61.131  | 57.750  | 59.488  | 58.569  |
| 33   | 20                           | -       | -       | -       | -       | -       | -       | -       | -       | 68.740  | 62.045  | 63.291  | 65.700  |
| 41   | 36                           | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | 39.930  | 41.360  |
| 42   | 32                           | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | 44.180  | 48.210  |
| 43   | 29                           | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | 50.020  | 54.750  |
| 44   | 26                           | 58.461  | 57.027  | 57.027  | 58.382  | 58.382  | -       | 58.950  | 60.330  | 59.846  | 60.229  | 56.932  | 59.456  |
| 45   | 23                           | 64.453  | 62.872  | 62.872  | 64.290  | 64.290  | 72.282  | 62.834  | 66.020  | 66.489  | 66.928  | 64.174  | 65.549  |
| 46   | 20                           | 70.933  | 69.193  | 69.193  | 73.950  | 73.950  | 79.598  | 74.467  | 74.691  | 74.265  | 71.167  | 71.321  | 78.698  |
| 47   | 18                           | 83.104  | 81.066  | 81.066  | 80.397  | 80.397  | 91.557  | 79.507  | 84.310  | 82.508  | 79.082  | 80.394  | 86.763  |
| 48   | 16                           | -       | -       | -       | -       | -       | -       | -       | -       | 93.918  | 95.441  | 90.751  | 94.354  |
| 49   | 14                           | 99.702  | 97.257  | 97.257  | 96.516  | 96.516  | 99.540  | 98.661  | 102.204 | 103.683 | 109.969 | 101.074 | 102.226 |
| 50   | 13                           | 116.220 | 113.370 | 113.370 | 115.819 | 115.819 | 119.496 | 116.342 | 119.188 | 116.546 | 112.773 | 113.688 | 124.890 |
| 51   | 12                           | 129.134 | 125.967 | 125.967 | 130.500 | 130.500 | 143.395 | 127.392 | 130.924 | 128.664 | 129.940 | 126.620 | 135.311 |
| 52   | 10                           | -       | -       | -       | -       | -       | -       | -       | -       | 145.196 | 135.882 | 139.073 | 142.663 |
| 53   | 9.00                         | 155.506 | 151.692 | 151.692 | 151.706 | 151.706 | 161.571 | 156.123 | 160.446 | 160.292 | 156.567 | 154.892 | 154.566 |
| 54   | 8.00                         | 178.241 | 173.870 | 173.870 | 172.188 | 172.188 | 187.827 | 174.012 | 175.207 | 176.998 | 175.738 | 173.374 | 185.558 |
| 55   | 7.20                         | 202.567 | 197.599 | 197.599 | 195.750 | 195.750 | 213.185 | 195.154 | 201.754 | 199.029 | 188.810 | 184.459 | 208.150 |
| 56   | 6.40                         | -       | -       | -       | -       | -       | 242.360 | -       | -       | 220.508 | 211.750 | 212.086 | 211.965 |
| 57   | 5.76                         | -       | -       | -       | -       | -       | -       | -       | -       | 247.956 | 227.500 | 225.646 | 237.771 |
| 60   | 6.40                         | .       | .       | 235.00  | 232.81  | 232.81  | 215.23  | 229.00  | 228.91  | 231.06  | 220.22  | 226.98  | 246.73  |
| 61   | 5.76                         | .       | .       | 261.40  | 260.47  | 260.47  | 237.02  | 259.68  | 258.98  | 258.09  | 242.24  | 249.68  | 271.40  |
| 62   | 5.14                         | .       | .       | 287.80  | 277.62  | 277.62  | 272.91  | 286.42  | 301.21  | 300.18  | 278.36  | 286.90  | 311.86  |
| 63   | 4.80                         | .       | .       | 317.30  | 305.72  | 305.72  | 313.91  | 315.41  | 337.01  | 335.85  | 315.65  | 325.33  | 353.64  |
| 64   | 4.00                         | .       | .       | 365.00  | 362.30  | 362.30  | 365.10  | 361.21  | 359.21  | 357.95  | 348.16  | 358.84  | 390.06  |
| 65   | 3.60                         | .       | .       | 401.70  | 416.80  | 416.80  | 396.93  | 415.49  | 425.69  | 424.23  | 398.71  | 410.95  | 446.71  |
| 66   | 3.20                         | .       | .       | 436.70  | 445.00  | 445.00  | 444.10  | 469.77  | 480.51  | 471.32  | 443.06  | 463.22  | 492.49  |
| 67   | 2.88                         | .       | .       | 511.70  | 483.80  | 483.80  | 533.10  | 510.72  | 513.04  | 503.22  | 500.94  | 523.74  | 556.83  |
| 68   | 2.22                         | .       | .       | 614.20  | 600.30  | 600.30  | 568.20  | 592.12  | 621.90  | 624.40  | 580.78  | 607.22  | 645.58  |
| 69   | 1.97                         | .       | .       | 736.90  | 720.70  | 720.70  | 681.90  | 710.80  | 771.80  | 736.20  | 692.72  | 724.25  | 770.01  |
| 70   | 1.67                         | .       | .       | 884.30  | 849.80  | 849.80  | 808.10  | 847.80  | 900.00  | 882.10  | 828.21  | 858.69  | 801.52  |
| 71   | 1.44                         | .       | .       | 1031.00 | 1020.00 | 1020.00 | 972.20  | 1017.00 | 1061.00 | 1040.00 | 987.84  | 1024.19 | 929.27  |
| 72   | 1.31                         | .       | .       | 1161.00 | 1117.00 | 1117.00 | 1130.00 | 1114.00 | 1166.00 | 1148.00 | 1138.21 | 1140.70 | 1108.37 |
| 73   | 1.11                         | .       | .       | 1291.00 | 1258.00 | 1258.00 | 1402.00 | 1255.00 | 1277.00 | 1340.00 | 1246.00 | 1249.19 | 1213.79 |
| 74   | 0.96                         | .       | .       | 1500.00 | 1542.00 | 1542.00 | 1592.00 | 1506.00 | 1564.00 | 1580.00 | 1540.00 | 1528.11 | 1502.21 |
| 75   | 0.80                         | .       | .       | 1807.00 | 1792.00 | 1792.00 | 1877.00 | 1751.00 | 1917.00 | 1730.00 | 1686.00 | 1834.00 | 1802.65 |
| 76   | 0.72                         | .       | .       | 2051.00 | 1998.00 | 1998.00 | 2055.00 | 2015.00 | 2094.00 | 2120.00 | 2023.00 | 2110.00 | 2074.02 |
| 77   | 0.60                         | .       | .       | 2350.00 | 2268.00 | 2268.00 | 2337.00 | 2287.00 | 2333.00 | 2363.00 | 2327.00 | 2345.00 | 2304.47 |
| 78   | 0.53                         | .       | .       | 2671.00 | 2578.00 | 2578.00 | 2519.00 | 2600.00 | 2617.00 | 2650.00 | 2586.00 | 2889.00 | 2844.00 |

Double reduction  
Triple reduction  
Quadruple reduction  
Quintuple reduction



# Series M Gearboxes : Exact Gear Ratios

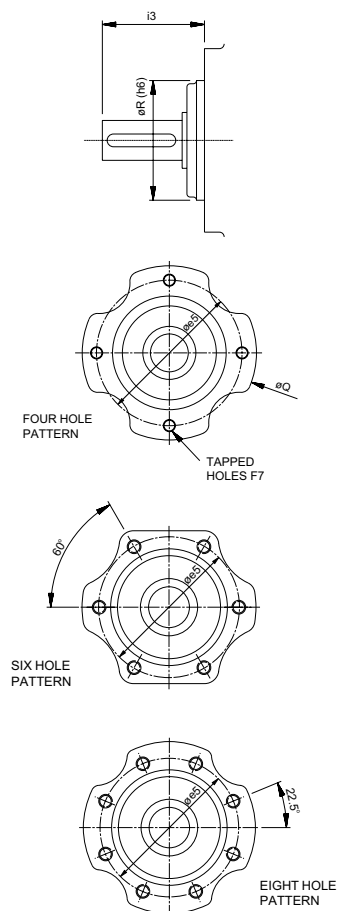
| Code | Nominal Output Speed Rev/Min | 860 | 801 | 861   | 802   | 862   | 803   | 863   | 864   | 865   | 866   | 867   | 868     |
|------|------------------------------|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 80   | 0.53                         | .   | .   | 2632  | 2655  | 2655  | 2649  | 2619  | 2728  | 2598  | 2446  | 2536  | 2743.72 |
| 81   | 0.45                         | .   | .   | 3068  | 3095  | 3095  | 3088  | 3053  | 3274  | 3119  | 3035  | 3146  | 3404.7  |
| 82   | 0.40                         | .   | .   | 3681  | 3650  | 3650  | 3832  | 3641  | 3818  | 3742  | 3579  | 3710  | 4015    |
| 83   | 0.36                         | .   | .   | 4091  | 4055  | 4055  | 4258  | 4046  | 4302  | 4216  | 3919  | 4062  | 4396    |
| 84   | 0.31                         | .   | .   | 4609  | 4440  | 4440  | 5021  | 4431  | 4726  | 4655  | 4515  | 4525  | 4969    |
| 85   | 0.26                         | .   | .   | 5550  | 5347  | 5347  | 6046  | 5335  | 5494  | 5411  | 5533  | 5545  | 5441    |
| 86   | 0.22                         | .   | .   | 6452  | 6553  | 6553  | 6620  | 6403  | 6733  | 6742  | 6106  | 6783  | 6668    |
| 87   | 0.19                         | .   | .   | 7396  | 7511  | 7511  | 7588  | 7339  | 7641  | 7652  | 7483  | 7561  | 7432    |
| 88   | 0.17                         | .   | .   | 8394  | 8372  | 8372  | 8624  | 8443  | 8344  | 8449  | 8340  | 8479  | 8335    |
| 89   | 0.15                         | .   | .   | 9540  | 9514  | 9514  | 9300  | 9596  | 9486  | 9605  | 9354  | 9490  | 10192   |
| 90   | 0.14                         | .   | .   | 10845 | 10670 | 10670 | 10569 | 10662 | 10924 | 11966 | 10048 | 10097 | 11430   |

- Double reduction
- Triple reduction
- Quadruple reduction
- Qunituple reduction

## B14 Face Mounting

| Size | Type    | ØR h6 | e5      | i3  | f7                   |
|------|---------|-------|---------|-----|----------------------|
| 860  | 4 holes | 52    | 75 pcd  | 54  | M8 x 1.25 x 12 deep  |
| 801  | 4 holes | 75    | 96 pcd  | 62  | M8 x 1.25 x 15 deep  |
| 861  | 4 holes | 75    | 96 pcd  | 62  | M8 x 1.25 x 15 deep  |
| 802  | 4 holes | 85    | 105 pcd | 74  | M12 x 1.75 x 21 deep |
| 863  | 4 holes | 85    | 105 pcd | 84  | M12 x 1.75 x 21 deep |
| 803  | 6 holes | 102   | 124 pcd | 84  | M12 x 1.75 x 21 deep |
| 863  | 6 holes | 102   | 124 pcd | 94  | M12 x 1.75 x 21 deep |
| 864  | 8 holes | 145   | 170 pcd | 120 | M12 x 1.75 x 21 deep |

Note: Foot mounted units can also be supplied with B14 face mounting but do not come supplied as standard. Please consult your local authorised distributor



## Series M Gearboxes : Overhung Load Capacities

### ALLOWABLE OVERHUNG LOADS

Units are fitted with input and output bearings of ample proportions to cater for the radial and thrust loads imposed by the gear loads, leaving sufficient capacity for taking overhung loads.

The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

Permissible overhung loads vary according to the direction of rotation. The values tabulated are for the most unfavourable direction with the unit transmitting full rated power and the load applied midway along the shaft extension. Hence they can sometimes be increased for a more favourable direction of rotation, or if the power transmitted is less than the rated capacity of the gear unit, or if the load is applied nearer to the gear unit case. Refer to your Distributor for further details. In any event, the sprocket, gear etc. should be positioned as close as possible to the gear unit case in order to reduce bearing loads and shaft stresses, and to prolong life.

All units will accept 100% momentary overload on stated capacities.

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to either shaft, one of the following formulae may be used in the absence of accurate information.

### (1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{M_2 \times 1000 \times K}{r}$$

### (2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{P_2 \times 9550 \times 1000 \times K}{n_2 \times r}$$

Where:

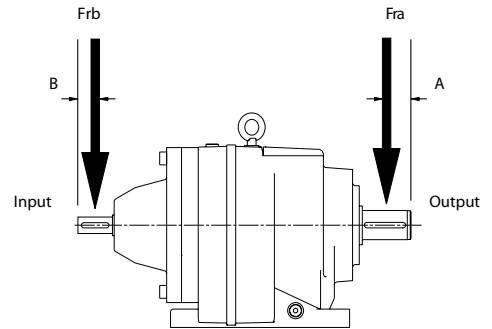
- $M_2$  = Absorbed torque at shaft in Nm.
- $P_2$  = Absorbed power at shaft in (kW).
- $r$  = Pitch radius of sprocket, gear or 'V' pulley in mm.
- $n_2$  = Rev/min of shaft
- $K$  = Application factor -  
1.00 for a sprocket  
1.25 for a gear or timing pulley  
1.50 for a 'V' pulley

Overhung loads may be reduced by one of the following methods:

- (1) Increase the diameter of the sprocket, gear or pulley within reasonable limits.
- (2) Mount the sprocket, gear or pulley on a separate shaft, supported with bearings and couple to the output shaft by means of a Fenner shaft coupling.
- (3) Use a special extended output shaft and support the free end with an outrigger bearing.

### Axial Thrust Capacities (N)

No check or calculation is required for axial loads towards or away from the unit up to 50% of the permissible overhung load. If the axial thrust exceeds these values or if there is a combination of axial thrust loads and overhung loads please refer to your local Authorised Distributor.



Output shaft dimensions refer to both motorised and non motorised units.

### DISTANCE MIDWAY ALONG SHAFT EXTENSION

| Size of Unit | No of Reductions | Dimension A (mm) | Dimension B (mm) |
|--------------|------------------|------------------|------------------|
| 860          | 2 - 3            | 20               | 20               |
| 801          | 2 - 3            | 25               | 20               |
| 861          | 2 - 5            | 25               | 20               |
| 802          | 2 - 5            | 30               | 20               |
| 862          | 2 - 5            | 35               | 20               |
| 803          | 2 - 5            | 35               | 20               |
| 863          | 2                | 40               | 25               |
|              | 3                | 40               | 20               |
| 864          | 4 - 5            | 40               | 20               |
|              | 2                | 50               | 30               |
| 864          | 3                | 50               | 25               |
|              | 4 - 5            | 50               | 20               |
| 865          | 2                | 60               | 40               |
|              | 3                | 60               | 30               |
|              | 4 - 5            | 60               | 20               |
| 866          | 2                | 70               | 55               |
|              | 3                | 70               | 40               |
|              | 4-5              | 70               | 25               |
| 867          | 2 - 3            | 85               | 55               |
|              | 4                | 85               | 25               |
|              | 5                | 85               | 20               |
| 868          | 2 - 3            | 105              | 55               |
|              | 4                | 105              | 25               |
|              | 5                | 105              | 20               |

### ALLOWABLE INPUT SHAFT OVERHUNG LOADS Frb (kN) @1450 REV/MIN

| Unit Size | 2 Stage | 3 Stage | 4 Stage | 5 Stage |
|-----------|---------|---------|---------|---------|
| 860       | 1.50    | 1.65    | -       | -       |
| 801       | 1.65    | 1.75    | -       | -       |
| 861       | 1.56    | 1.75    | 1.50    | 1.50    |
| 802       | 1.20    | 1.50    | 1.50    | 1.50    |
| 862       | 1.10    | 1.50    | 1.50    | 1.50    |
| 803       | 0.90    | 1.50    | 1.50    | 1.50    |
| 863       | 1.65    | 1.80    | 1.50    | 1.50    |
| 864       | 1.50    | 2.25    | 1.75    | 1.75    |
| 865       | 1.50    | 3.50    | 1.75    | 1.75    |
| 866       | 2.55    | 4.20    | 2.25    | 2.25    |
| 867       | 6.90    | 12.00   | 2.25    | 2.25    |
| 868       | 7.10    | 12.00   | 2.25    | 2.25    |

\* For Output Shaft Overhung Load Capacities see the relevant selection tables

# Series M Gearboxes : Installation and Maintenance

## INSTALLATION

Freedom from vibration and correct alignment are the two main points to be considered when installing Gearmotors. Attention to these points will prolong the life and efficiency of the entire drive.

The shafts of the prime mover, unit and driven equipment, should be in as perfect alignment as possible. Misaligned shafts impose abnormal stress on bearings and couplings, leading to excessive wear and possibly early failure.

Vibration accelerates bearing and gear wear, resulting in noisy operation. Alignment can be maintained and vibration eliminated, by mounting the drive on rigid foundations of adequate proportions and dowelling the units in position. Fenaflex couplings are recommended when the shaft alignment cannot be assured and also when protection from peak and vibratory torques is desirable. After installation, regular inspection should be carried out to check the tightness of the fixing bolts and also the accuracy of alignment.

## LUBRICANT TYPE TEMPERATURE RANGE

| ISO Viscosity   | Ambient Temperature °C |               |             |              |
|-----------------|------------------------|---------------|-------------|--------------|
|                 | -5°C to 20°C           | -30°C to 20°C | 0°C to 35°C | 20°C to 50°C |
| EP Mineral Oil  | 220                    | -             | 320         | 460          |
| Synthetic Oil 1 | -                      | 220           | 220         | 320          |
| Synthetic Oil 2 | -                      | 220           | 320         | 460          |

Synthetic Oil 1 = Polyalphaolein based. Synthetic Oil 2 = Polyglycol based  
The recommended lubricants for Series M are EP mineral oil or synthetic oil type 1.

## LUBRICATION

### Germotors and Reducers

#### Sizes 860 to 863

Sizes 860 to 863 are supplied ready filled with the required amount and type of lubricant for the mounting position identified in the original order.

**Note:** If the unit is to be mounted in a different position to that originally intended then the amount of lubricant in the unit will require amending - see table below for required quantities.

#### Sizes 864 to 868

Sizes 864 to 868 are despatched without oil and should be filled prior to installation. The different mounting positions are indicated below and the tables show the appropriate oil levels. The units have several oil fill and drain plug locations to cater for all mounting positions.

## LUBRICANT RENEWAL INTERVALS

| Unit Op Temp °C | Renewal Period (Hours) |                 |
|-----------------|------------------------|-----------------|
|                 | Mineral Oil            | Synthetic Oil   |
| 75 or less      | 17000 or 3 yrs         | 26000 or 3 yrs  |
| 80              | 12000 or 3 yrs         | 26000 or 3 yrs  |
| 85              | 8500 or 3 yrs          | 21000 or 3 yrs  |
| 90              | 6000 or 2 yrs          | 15000 or 3 yrs  |
| 95              | 4200 or 17 mths        | 10500 or 3 yrs  |
| 100             | 3000 or 12 mths        | 7500 or 2.5 yrs |
| 105             | 2100 or 8 mths         | 6200 or 2 yrs   |
| 110             | 1500 or 6 mths         | 2100 or 18 mths |

## Oil Changes

Sizes 860 to 863 units are lubricated for life with EP 320 mineral oil. Units that are required to work in an ATEX environment require draining and relubricating in accordance with a separate ATEX installation leaflet.

Sizes 864 to 868 require an oil change after the first 1000 hours operation. Subsequent oil changes should be carried out in line with the table below, depending on your operating temperature.

Do not mix mineral and synthetic lubricants. Do not overfill the unit as this can result in leaking and high running temperatures.

All plugs should be fitted in the correct position and should be torque tightened in accordance with the table below.

## BREATHERS/MOUNTING POSITIONS

Sizes 860,801 and 861 are supplied for operation without breathers.

Sizes 802 to 863 are supplied for operation with breathers. To prevent leakage during transit these units are fitted with blanking plugs. It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet.

Sizes 864 to 868 are supplied for operation fitted with a breather but are despatched without oil.

## LUBRICANT QUANTITIES (LITRES)

| ISO Viscosity | 860    |        | 801    |        | 861    |        | 802    |        | 862    |        | 803    |        | 863    |        | 864    |        | 865    |        | 866    |        | 867    |        | 868    |        |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|               | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple | Double | Triple |
| B3/B5         | 0.5    | 0.6    | 0.8    | 0.8    | 0.8    | 0.8    | 1.5    | 1.6    | 1.5    | 1.6    | 2.0    | 2.1    | 2.6    | 2.7    | 4.2    | 4.4    | 10.5   | 11.5   | 14     | 15     | 17     | 18     | 24     | 24.5   |
| B7            | 0.8    | 0.9    | 1.2    | 1.3    | 1.2    | 1.3    | 1.8    | 1.9    | 1.8    | 1.9    | 2.0    | 2.1    | 2.9    | 3.0    | 6.3    | 6.5    | 12.0   | 12.0   | 22     | 24     | 31     | 33     | 49     | 50     |
| B6            | 0.6    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 1.6    | 1.7    | 1.6    | 1.7    | 1.9    | 2.0    | 2.7    | 2.8    | 5.4    | 5.6    | 12.0   | 12.0   | 22     | 24     | 31     | 33     | 49     | 50     |
| B8            | 0.8    | 0.9    | 1.2    | 1.2    | 1.2    | 1.2    | 1.8    | 1.9    | 1.8    | 1.9    | 1.7    | 1.8    | 3.0    | 3.1    | 7.3    | 7.5    | 12.0   | 12.0   | 19     | 21     | 28     | 30     | 41     | 43     |
| V1/V5         | 0.7    | 0.7    | 1.1    | 1.1    | 1.1    | 1.1    | 2.0    | 2.1    | 2.0    | 2.1    | 2.2    | 2.3    | 3.2    | 3.3    | 6.8    | 6.8    | 16.8   | 16.8   | 32     | 32     | 47     | 47     | 72     | 72     |
| V3/V6         | 1.0    | 1.1    | 1.4    | 1.6    | 1.4    | 1.6    | 2.6    | 2.7    | 2.6    | 2.7    | 2.8    | 2.9    | 4.7    | 4.8    | 9.3    | 9.7    | 16.4   | 16.5   | 26     | 28     | 38     | 40     | 65     | 67     |
| Plug Size     | M10    |        | M10    |        | M10    |        | M10    |        | M10    |        | M10    |        | M14    |        | M16    |        | M16    |        | M16    |        | M22    |        | M22    |        |

\* For quadruple and quintuple reduction fill quantities please consult your local Authorised Distributor

## MOUNTING POSITIONS

Mounting B3

Mounting B8

Mounting V5 †

Mounting V6 †\*

Mounting V3 †\*

Mounting B6

Mounting B7

Mounting B5

Mounting V1

○ Ventilator/Filling Position      ● Level Position      ● Drain Position

† Gear units for use in mounting positions V1, V3, V5 and V6 should only be selected with overall ratios greater than or equal to those shown in the table below.  
\* Mounting positions V3 & V6 are not recommended for geared motors. Please consult your local authorised distributor.

| Unit Size | Input Speed (rpm) |      |       |                                |
|-----------|-------------------|------|-------|--------------------------------|
|           | 1000              | 1500 | 1800  | >1800                          |
| 860-864   | All               | All  | All   | Consult your local distributor |
| 865       | 2:1               | 4:1  | 4.5:1 |                                |
| 866       | 4:1               | 8:1  | 9:1   |                                |
| 867       | 6.3:1             | 11:1 | 14:1  |                                |
| 868       | 12:1              | 18:1 | 22:1  |                                |

## Series M Gearboxes : Ordering Instructions

All gearboxes and geared motors are identified by an eight digit code for a unit with a standard electric motor, if a special motor type is required a ninth digit is added to the end of the normal code. These codes should be included on all enquiries, correspondence and orders. The code is made up as follows:-

**First THREE digits:** Gearmotor type and size.

Select from the tables on pages 182-198 and 204-209.

**Fourth digit:** Type of assembly required

- A: Foot mounted motorised
- B: Flange mounted motorised
- D: Foot mounted with input shaft
- E: Flange mounted with input shaft
- G: Foot mounted - motor ready
- H: Flange mounted - motor ready

**Fifth/Sixth digit:** Ratio code

1. Assemblies A and B use the complete eight digit code obtained directly from the selection tables.
2. Exact gear ratios can be found on page 214.
3. For selection and specification of D & E reducer units, select from tables on page 204-209 and create code as shown.
4. For selection of motor ready units (types G & H) use motor selection tables and replace motor codes with frame codes.

**Seventh/Eighth digit:** Type of drive code

1. Motorised units - use complete code from selection tables with if applicable, additional ninth digit for motor type.
  2. Input Reducer assembly - use 00.
  3. Motor ready units are supplied to fit standard IEC motors. Insert frame code from the table below.
- For frame size of motor please refer to motor table on 314.

| Code | Frame | Flange |
|------|-------|--------|
| 63C  | 63    | B14    |
| 63D  | 63    | B5     |
| 71C  | 71    | B14    |
| 71D  | 71    | B5     |
| 80C  | 80    | B14    |
| 80D  | 80    | B5     |
| 90C  | 90    | B14    |
| 90D  | 90    | B5     |
| 10C  | 100   | B14    |
| 10D  | 100   | B5     |
| 11C  | 112   | B14    |
| 11D  | 112   | B5     |
| 13C  | 132   | B14    |
| 13D  | 132   | B5     |
| 16D  | 160   | B5     |
| 18D  | 180   | B5     |
| 20D  | 200   | B5     |
| 22D  | 225   | B5     |
| 25D  | 250   | B5     |

**Ninth digit:** Type of motor variant

Use eight digit code obtained from selection tables for required motor power and speed and then add the relevant letter code from table below of the motor variant required.

### ELECTRIC MOTOR VARIANTS

All variants of standard IEC motors can be fitted to Fenner Gearmotors, Series M is also capable of accepting NEMA motor variants as well.

Examples of some of the variants and their ninth digit code letter are:-

| Code | Additional Feature                |
|------|-----------------------------------|
| A    | Anti-condensation heaters fitted  |
| B    | Backstop Fitted                   |
| M    | Brake motor                       |
| N    | Brake motor with Hand Release     |
| Q    | Refer to Original Quote - Special |
| S    | Single Phase motor                |
| T    | Fitted with Thermistors           |
| X    | Fitted with Variator              |
| Z    | Fitted with Force Vent unit       |

Standard clutch brake modules with IEC flanges can be fitted between motor and gearhead. Refer to page 176 for more details).

Variable speed packages are available using mechanical disc variators or Fenner QD inverters. Refer to page 146 and 177 for more details.

Backstop modules are available for motor frame sizes 100 to 200. Refer to page 312 for more details.

Brake motors please refer to age 174.

Force vent please refer to page 175.

For any of these combinations please contact your local Authorised Distributor.

**The mounting position should always be specified at the time of order.**