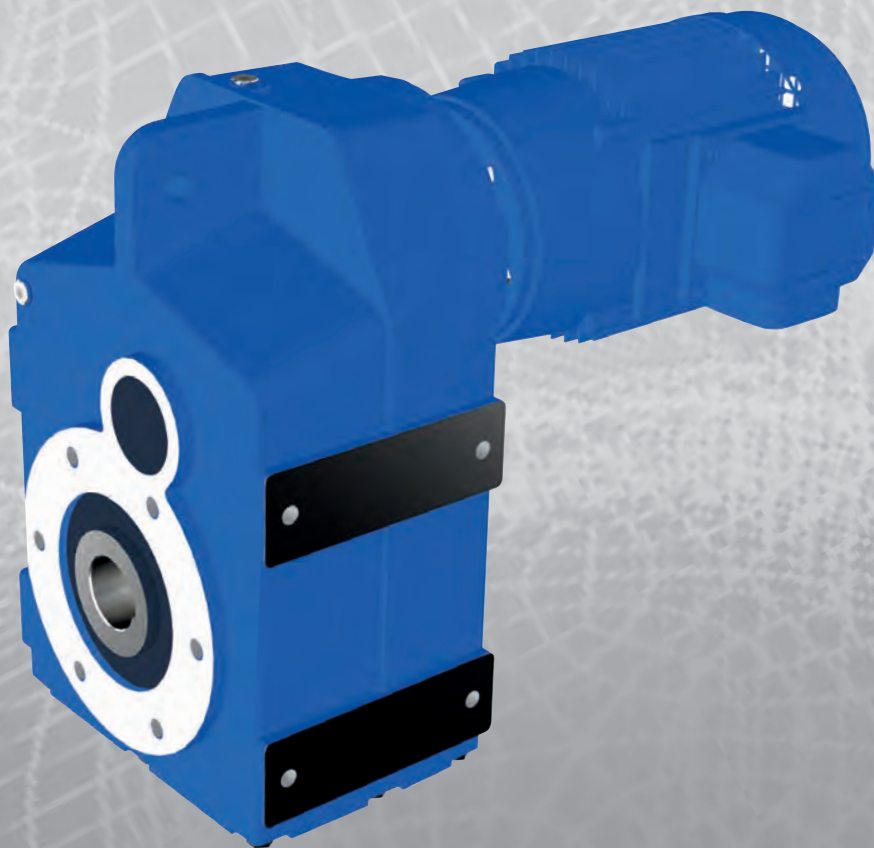


## F Series

### Shaft Mounted Gear Units



**RENOLD**  
Superior Gear Technology

# ATEX Compliance Assured



Total compliance with the ATEX Directive safeguarding the use of industrial equipment in potentially explosive atmospheres is assured for users of our geared products.

Certification is available for standard gearboxes and geared motors with badging displaying the CE Mark and the Ex mark, name and location of the manufacturer, designation of series or type, serial number, year of manufacture, Ex symbol and equipment group/category.

ATEX directive 94/9/EC (also known as ATEX 95 or ATEX 100A) and the CE Marking Directive are enforced in all EC member states. Compliance is compulsory for designers, manufacturers or suppliers of electrical and non-electrical equipment for use in potentially explosive atmospheres created by the presence of flammable gases, vapours, mists or dusts.

Ex compliant standard gearboxes can be supplied against Groups 2 or 3 for surface industries in designated hazardous location Zones 1 and 2 for gases, vapours and mists; and in Zones 21 and 22 for dusts.

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## GENERAL DESCRIPTION

### F Series

F Series right angle drive helical bevel helical geared motors offer ratios from 5:1 to 100:1 in two stages, up to 320:1 in three stages and 5000:1 in four stages.

Motors are available up to 45kW with an output torque capacity of up to 8000.Nm.

The F Series geared motor is primarily designed as a shaft mounted unit incorporating an integral torque reaction bracket, and can be supplied with rubber torque bushes to cushion the torque reaction.

Shaft mounted units are supplied with a hollow bore and keyway or alternatively with a KIBO sleeve and KIBO bushings

Units may also be supplied with a single extended output shaft, side tappings are provided to attach feet for base mounting,

Units may also be supplied with an output flange suitable for mounting horizontally or vertically.

All variants can be fitted with a motor of your preference or with a standard own brand motor, alternatively they can be supplied with an input shaft assembly.

Adding to the range of geared motors this product takes advantage of our many years of accumulated design expertise together with the use of high quality materials and components. The end result is a series of speed reducing geared motors offering high load carrying capacities, increased efficiency, quiet running and reliability.

### The Range Includes:

9 Sizes of Units:

F02, F03, F04, F05, F06, F07, F08, F09 & F10

- Version T - standard unit with torque bushes
- Version W - standard unit without torque bushes
- Version F - standard unit with output flange

### Unit Types:

- Unit type M - Motorised with IEC standard motor
- Unit type D - Motorised with Compact motor
- Unit type N - Motorised with NEMA standard motor
- Unit type H - Motorised with high efficiency motor (IE3)
- Unit type E - Motorised with NEMA high efficiency motor (PREMIUM)
- Unit type G - Unit to allow fitting of IEC motor
- Unit type A - Unit to allow fitting of NEMA motor
- Unit type R - Reducer unit
- Unit type S - Reducer unit with fan kit
- Unit type W - Reducer unit with backstop CCW rotation
- Unit type X - Reducer unit with backstop CW rotation
- Unit type Y - Reducer unit with fan and backstop CW rotation
- Unit type Z - Reducer unit with fan and backstop CCW rotation

### Design Features Include:

Patented standard motor connection (IEC or NEMA)

Ability to fit double oil seals, on output shaft or reducer input shaft as required.

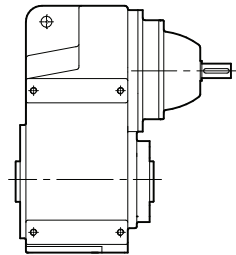
All units are dimensionally interchangeable with other major European manufacturers.

Braked geared motors are available as standard.

Units are manufactured and assembled from a family of modular kits for distributor friendliness minimising inventory and maximising availability.

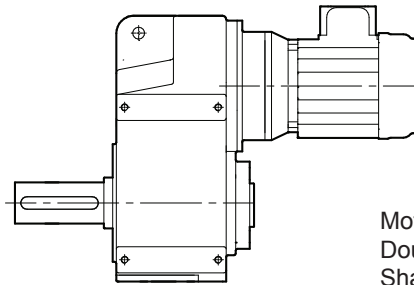
Motorised units can be fitted with a backstop module and reducer units can be fitted with a backstop and fan.

*As improvements in design are being made continually this specification is not to be regarded as binding in detail and drawings and capacities are subject to alteration without notice. Certified drawings will be sent on request.*



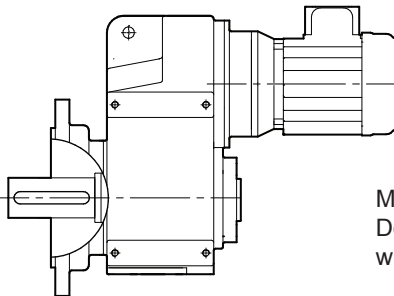
Shaft Mounted Reducer  
Double / Triple Reduction

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 4 | 2 | 3 | 5 | 0 | . | T | R | H | - | 1 | - | - | - | - | - | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|



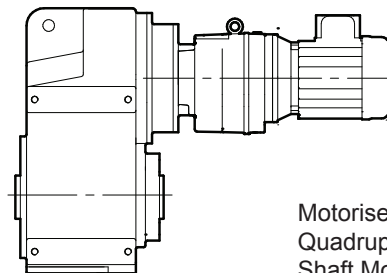
Motorised -  
Double / Triple Reduction  
Shaft Mounted

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 4 | 2 | 3 | 5 | 0 | . | T | M | H | - | 1 | D | . | 7 | 5 | A | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|



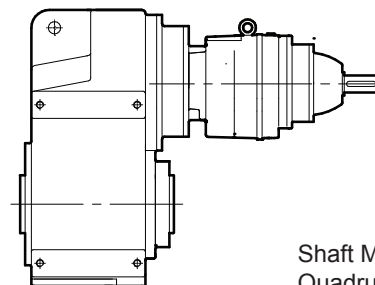
Motorised  
Double / Triple Reduction  
with Output Shaft and Flange

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 4 | 2 | 3 | 5 | 0 | . | F | M | C | - | 1 | D | . | 7 | 5 | A | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|



Motorised  
Quadruple Reduction  
Shaft Mounted

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 6 | 4 | 3 | 5 | 0 | 0 | T | M | H | - | 1 | D | . | 1 | 2 | A | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|



Shaft Mounted Reducer  
Quadruple Reduction

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 6 | 4 | 3 | 5 | 0 | 0 | T | R | H | - | 1 | - | - | - | - | - | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

# F SERIES

## UNIT DESIGNATIONS

| Gearbox Codes |              |   |   |                  |                  |                       |   |   |              |              |              |               |                   | Motor Codes        |                   |                           |                             |    |    |
|---------------|--------------|---|---|------------------|------------------|-----------------------|---|---|--------------|--------------|--------------|---------------|-------------------|--------------------|-------------------|---------------------------|-----------------------------|----|----|
| Series        | Size of Unit |   |   | No of Reductions | Revision Version | Nominal Overall Ratio |   |   | Unit Version | Type of Unit | Output Shaft | Motor Adaptor | Mounting Position | Geared Motor Power | No of Motor Poles | Additional Motor Features | Additional Gearbox Features |    |    |
| 1             | 2            | 3 | 4 | 5                | 6                | 7                     | 8 | 9 | 10           | 11           | 12           | 13            | 14                | 15                 | 16                | 17                        | 18                          | 19 | 20 |
|               |              |   |   |                  |                  |                       |   |   |              |              |              |               |                   |                    |                   |                           |                             |    |    |

\*\* Looking on Input shaft Mounting Position 1 (See unit handings page)  
 \*\*\* Non Standard and Handing - Consult Application Engineering

Example

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 8 | 2 | 3 | 5 | 0 | . | T | M | C | G | 1 | D | 4 | . | 0 | A | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**20 - Additional Gearbox Features**  
 Double Oil Seal, Motorized Backstop etc

e.g.

### 1 - F Series

Range

### 2, 3 - Size of Unit

-

### 4 - No of Reductions

### 5 - Revision Version

### 6, 7, 8 - Nominal Overall Ratio

e.g.

### 9 - Unit Version

STD with Torque Bush

STD without Torque Bush

STD with Output Flange

### 10 - Type of Unit

- M - Motorized with IEC standard motor (IE2)
- D - Motorised with Compact Motor
- N - Motorized with NEMA standard motor
- H - Motorized with IEC high efficiency motor (IE3)
- E - Motorized with NEMA high efficiency motor (PREMIUM)
- G - Unit to allow fitting of IEC motor (customer own motor)
- A - Unit to allow fitting of NEMA motor (customer own motor)
- R - Reducer unit
- S - Reducer unit with fan kit
- W - Reducer unit with backstop CCW rotation
- X - Reducer unit with backstop CW rotation
- Y - Reducer unit with fan and backstop CW rotation
- Z - Reducer unit with fan and backstop CCW rotation

### 19 - Additional Motor Features

e.g.

For Types Without Motor Enter

### 18 - No of Motor Poles

No motor

|                        | 50 Hz                           | 60 Hz                           |
|------------------------|---------------------------------|---------------------------------|
| 4 Pole (Std)           | 1800 rpm <input type="text"/> A | 1500 rpm <input type="text"/> B |
| 4 Pole (High)          | 1800 rpm <input type="text"/> K | 1500 rpm <input type="text"/> L |
| 6 Pole (Std)           | 1200 rpm <input type="text"/> C | 1000 rpm <input type="text"/> D |
| 6 Pole (High)          | 1200 rpm <input type="text"/> M | 1000 rpm <input type="text"/> N |
| 2 Pole                 | 3600 rpm <input type="text"/> E | 3000 rpm <input type="text"/> F |
| 8 Pole                 | 900 rpm <input type="text"/> G  | 750 rpm <input type="text"/> H  |
| <input type="text"/> S | Dual speed or special motor     |                                 |

### 15, 16, 17 - Geared Motor Powers

Motor HP required (For 50 Hz enter kW)

e.g.

For reducer and non standard

motor types enter

### 13, 14 - Mounting Position

e.g.

### 12 - Motor Adaptor For Unit Types

Column 10 Entries M, N, H, E, G or A  
 See Pages 9 and 10

For All Other Types Enter

### 11 - OUTPUT SHAFT

Standard Single Extension  C

Standard Hollow Shaft  H

Shrink Disc  Y

KIBO Bushing  \*

\* Dependant on bore size  
 see KIBO dimesion page

# F SERIES

## EXPLANATION & USE OF RATINGS & SERVICE FACTORS

Gear unit selection is made by comparing actual loads with catalogue ratings. Catalogue ratings are based on a standard set of loading conditions, whereas actual load conditions vary according to type of application. Service Factors are therefore used to calculate an equivalent load to compare with catalogue ratings.

i.e. Equivalent Load = Actual Load x Service Factor

### **Mechanical Ratings and Service Factors Fm and Fs**

Mechanical ratings measure capacity in terms of life and/or strength, assuming 10 hr/day continuous running under uniform load conditions.

Catalogue ratings allow 100% overload at starting, braking or momentarily during operation up to 10 hours per day.

The unit selected must therefore have a catalogue rating at least equal to half maximum overload.

Mechanical Service Factor Fm (Table 1) is used to modify the actual load according to daily operating time, and type of loading.

Load characteristics for a wide range of applications are detailed in Table 3 opposite, which are used in deciding the appropriate Service Factor Fm from Table 1.

If overloads can be calculated, or accurately assessed, actual loads should be used instead of Fm.

For units subjected to frequent stop/starts overloads in excess of 10 times/day multiply factor Fm x Factor Fs (table 2).

For applications where units are to operate in extremely dusty or moist/humid atmospheres unit selection should be referred to application engineering.

**Table 1. Mechanical Service Factor (Fm)**

| Prime Mover                                      | Duration of Service Hours per day | Load Classification-Driven Machine          |                                            |                                          |
|--------------------------------------------------|-----------------------------------|---------------------------------------------|--------------------------------------------|------------------------------------------|
|                                                  |                                   | Uniform mass acceleration factor $\leq 0.2$ | Moderate mass acceleration factor $\leq 3$ | Heavy mass acceleration factor $\leq 10$ |
| Electric Motor, Steam Turbine or Hydraulic Motor | < 3                               | 0.80                                        | 1.00                                       | 1.50                                     |
|                                                  | 3 - 10                            | 1.00                                        | 1.25                                       | 1.75                                     |
|                                                  | > 10                              | 1.25                                        | 1.50                                       | 2.00                                     |
| Multi-cylinder Internal Combustion Engine        | < 3                               | 1.00                                        | 1.25                                       | 1.75                                     |
|                                                  | 3 - 10                            | 1.25                                        | 1.50                                       | 2.00                                     |
|                                                  | > 10                              | 1.50                                        | 1.75                                       | 2.25                                     |
| Single-cylinder Internal Combustion Engine       | < 3                               | 1.25                                        | 1.50                                       | 2.00                                     |
|                                                  | 3 - 10                            | 1.50                                        | 1.75                                       | 2.25                                     |
|                                                  | > 10                              | 1.75                                        | 2.00                                       | 2.50                                     |

Mass acceleration factor =  $\frac{\text{all external moments of inertia}}{\text{moment of inertia of driving motor}}$

\* calculated with reference to the motor speed

**Table 2. Number of Starts Factor (Fs)**

| Start / Stops per hour (1) | Up to 1 | 5    | 10   | 40   | 60   | $\geq 200$ |
|----------------------------|---------|------|------|------|------|------------|
| Factor Fs                  | 1.00    | 1.03 | 1.06 | 1.10 | 1.15 | 1.20       |

Note: Intermediate values are obtained by linear interpolation

# F SERIES

## LOAD CLASSIFICATION BY APPLICATIONS

**Load Classifications -** U =Uniform Load M =Moderate Shock Load H =Heavy Shock Load † =Consult our Engineers

|                                            |   |                                    |   |                            |   |                               |   |
|--------------------------------------------|---|------------------------------------|---|----------------------------|---|-------------------------------|---|
| <b>Agitators</b>                           |   | <b>Elevators</b>                   |   | <b>Machine Tools</b>       |   | <b>Pumps</b>                  |   |
| Pure liquids                               | U | Bucket - Uniform load              | U | Bending roll               | M | Centrifugal proportioning     | U |
| Liquids and solids                         | M | Bucket - Heavy load                | M | Punch press                | H | Proportioning                 | M |
| Liquids variable density                   | M | Bucket - Continuous                | U | Notching press             | H | Reciprocating                 |   |
|                                            |   | Centrifugal discharge              | U | Plate planer               | H | Single acting 3+ cylinders    | M |
| <b>Blowers</b>                             |   | Escalators                         | U | Other machine tools        |   | Double acting 2+ cylinders    | M |
| Centrifugal                                | U | Freight                            | M | Main drive                 | M | Single acting 1 & 2 cylinders | † |
| Lobe                                       | M | Gravity discharge                  | U | Aux drive                  | U | Double acting 1 cylinder      | † |
| Vane                                       | U | Passenger lifts                    | † |                            |   | Rotary- gear type             | U |
|                                            |   |                                    |   | <b>Metal mills</b>         |   | Rotary- lobe type/ vane       | U |
| <b>Brewing &amp; distilling</b>            |   | <b>Fans</b>                        |   | Carriage/main drive        | M |                               |   |
| Bottling machinery                         | M | Centrifugal                        | U | Draw bench                 | M | <b>Sand muller</b>            | M |
| Brew Kettles                               | M | Cooling towers                     |   | Dryer                      | M |                               |   |
| Cookers                                    | M | Induced draft                      | † | Flattening machinery       | M | <b>Sewage treatment</b>       |   |
| Mash tubs                                  | M | Forced draft                       | † | Pinch drive                | M | Bar screen                    | U |
| Scale hopper                               | M | Fan - Large diameter induced draft | † | Reversing slitters         | M | Chemical feeder               | U |
|                                            |   | Fan - Light, small diameter        | M | Scrubber rolls             | M | Collector                     | U |
| <b>Can filling machinery</b>               | M |                                    |   | Table conveyors            |   | Dewatering screw              | M |
|                                            |   | <b>Feeders</b>                     |   | Group drives               | H | Mixers                        | M |
| <b>Crane knife</b>                         | M | Apron                              | M | Individual drives          | H | Scum breaker                  | M |
|                                            |   | Belt                               | M | Table conveyors- reversing | H | Thickness                     | M |
| <b>Car dumper</b>                          | M | Disc                               | U | Wire draw                  | M | Vacuum filters                | M |
|                                            |   | Reciprocating                      | H | Wire roll                  | M |                               |   |
| <b>Car puller</b>                          | M | Screw                              | M |                            |   | <b>Screens</b>                |   |
| <b>Clarifier</b>                           | U |                                    |   | <b>Mills</b>               |   | Air washing                   | U |
|                                            |   | <b>Food industry</b>               |   | Cement kiln                | H | Rotary, stone or gravel       | U |
| <b>Classifier</b>                          | M | Cereal cooker                      | U | Dryer, Cooler              | H | Traveling water intake        | U |
|                                            |   | Dough mixer                        | M | Kiln (other)               | H |                               |   |
| <b>Clay wokring machinery</b>              |   | Meat grinder                       | M | Rod plain                  | H | <b>Slab pushers</b>           | M |
| Brick press                                | H | Meat slicer                        | M | Rod wedge bar              | H |                               |   |
| Briquette machine                          | H |                                    |   | Rotary/ Ball               | H | <b>Slewing</b>                | H |
| Clay working machinery                     | M | <b>Generators - not welding</b>    | U | Tumbling barrel            | H |                               |   |
| Plug mill                                  | M |                                    |   |                            |   | <b>Steering gear</b>          | † |
|                                            |   | <b>Hammer mills</b>                | H |                            |   |                               |   |
| <b>Compressors</b>                         |   |                                    |   | <b>Mixers</b>              |   | <b>Stokers</b>                | U |
| Centrifugal                                | U | <b>Hoists</b>                      |   | Concrete                   | M |                               |   |
| Lobe                                       | M | Heavy duty                         | H | Constant density           | U | <b>Sugar industry</b>         |   |
| Reciprocating                              |   | Medium duty                        | M | Variable density           | M | Can knife                     | M |
| Multi cylinder                             | M | Skip hoist                         | M |                            |   | Crusher                       | M |
| Single cylinder                            | H |                                    |   | <b>Oil industry</b>        |   | Mills                         | M |
|                                            |   | <b>Laundry</b>                     |   | Chiller's                  | M |                               |   |
| <b>Conveyors- Light duty uniform load</b>  |   | Tumbler                            | M | Oil well pump              | M | <b>Textile industry</b>       |   |
| Apron                                      | U | Washer                             | M | Filter press               | M | Batchers                      | M |
| Assembly                                   | U |                                    |   | Rotary kiln                | M | Calenders                     | M |
| Belt                                       | U | <b>Line shafts</b>                 |   |                            |   | Cards                         | M |
| Bucket                                     | U | Heavy duty                         | M | <b>Paper industry</b>      |   | Dry cans                      | M |
| Chain                                      | U | Light duty                         | U | Agitator (mixer)           | M | Dryers                        | M |
| Flight                                     | U |                                    |   | Barker (hydraulic)         | M | Dyeing machinery              | M |
| Oven                                       | U | <b>Lumber industry</b>             |   | Barker (mechanical)        | H | Knitting machinery            | M |
| Screw                                      | U | Barkers                            | M | Barking drum               | H | Looms                         | M |
|                                            |   | Burner conveyor                    | H | Beater & Pulper            | M | Mangles                       | M |
| <b>Conveyors - Heavy duty uniform load</b> |   | Chain/ Drag saw                    | H | Bleacher                   | U | Nappers                       | M |
| Apron                                      | M | Chain transfer                     | H | Calednders                 | M | Pads                          | M |
| Assembly                                   | M | Chain way transfer                 | H | Calenders- super           | H | Range drive                   | M |
| Belt                                       | M | De- barking drum                   | H | Converting machine         | M | Slashers                      | M |
| Bucket                                     | M | Edger feed                         | M | Conveyors                  | U | Soapers                       | M |
| Chain                                      | M | Gang feed                          | M | Couch                      | M | Spinners                      | M |
| Flight                                     | M | Green chain                        | M | Cutters - plates           | H | Tenter frame                  | M |
| Live roll                                  | † | Live roll                          | H | Cylinders                  | M | Washers                       | M |
| Oven                                       | M | Log deck                           | H | Dryers                     | M | Winders                       | M |
| Reciprocating                              | M | Log haul                           | H | Felt stretcher             | M |                               |   |
| Screw                                      | M | Log turning                        | H | Felt whipper               | H | <b>Windlass</b>               | † |
| Shaker                                     | M | Log conveyoyr                      | H | Jordans                    | M |                               |   |
|                                            |   | Of bearing roll                    | M | Log haul                   | H |                               |   |
| <b>Cranes</b>                              | † | Planer feed chaines                | M | Machine real               | M |                               |   |
|                                            |   | Planer hoist                       | M | Presses                    | M |                               |   |
| <b>Crusher</b>                             |   | Re-saw conveyor                    | M | Stock chest                | M |                               |   |
| Ore                                        | H | Roll cases                         | H | Suction roll               | M |                               |   |
| Stone                                      | H | Slab conveyor                      | H | Washers & thickeners       | M |                               |   |
| Sugar                                      | H | Sorting table - triple hoist       | M | Winders                    | M |                               |   |
|                                            |   | Triple hoist - Drive /conveyor     | M |                            |   |                               |   |
| <b>Dredger</b>                             | M | Transfer conveyor                  | M | <b>Printing presses</b>    | † |                               |   |
| Cable reals                                | M | Transfer roll                      | M |                            |   |                               |   |
| Conveyors                                  | M | Tray drive                         | M | <b>Pullers</b>             |   |                               |   |
| Cutter head drive                          | H | Trimmer feed                       | M | Barge haul                 | H |                               |   |
| Pumps                                      | M | Waster conveyor                    | M |                            |   |                               |   |
| Screen drive                               | H | Small waste conveyor (belt)        | U |                            |   |                               |   |
| Stackers                                   | M | Small waste conveyor (chain)       | U |                            |   |                               |   |
| Winches                                    | M |                                    |   |                            |   |                               |   |

# F SERIES

## SELECTION PROCEDURE FOR MOTORISED UNITS

### EXAMPLE APPLICATION DETAILS

Absorbed power of driven machine = 0.7kW  
 Output speed of gearbox or Input speed of machine = 63 rev/min  
 Application = Uniformly loaded belt conveyor  
 Duration of service (hours per day) = 24hrs  
 Mounting position = 1  
 Ambient temperature = 25°C  
 Running time (%) = 100%

### 1 DETERMINE MECHANICAL SERVICE FACTOR (Fm)

Refer to Load Classification by Application, table 3.

Application = Uniformly loaded belt conveyor

| Conveyors-uniformly loaded or fed |   | U = Uniform load |
|-----------------------------------|---|------------------|
|                                   |   |                  |
| apron                             | U |                  |
| assembly                          | U |                  |
| belt                              | U |                  |
| bucket                            | U |                  |
| chain                             | U |                  |

Refer to mechanical service factor (Fm), table 1, page 3

Duration of service (hours per day) = 24hrs

| Prime mover                                      | Duration of service-hrs per day | Load classification-drive |                |
|--------------------------------------------------|---------------------------------|---------------------------|----------------|
|                                                  |                                 | Uniform                   | Moderate Shock |
| Electric motor, steam turbine or hydraulic motor | < 3                             | 0.80                      | 1.00           |
|                                                  | 3 - 10                          | 1.00                      | 1.25           |
|                                                  | > 10                            | 1.25                      | 1.50           |

Therefore mechanical service factor (Fm) = 1.25

### 2 DETERMINE REQUIRED OUTPUT TORQUE AT GEARBOX OUTPUT SHAFT

$$\begin{aligned} \text{Absorbed output torque} &= \frac{\text{Absorbed power} \times 9550}{\text{Gearbox output speed}} \\ \frac{0.7 \times 9550}{63} &= 106 \text{ Nm} \end{aligned}$$

### 3 SELECT GEARED MOTOR

Refer to selection table one motor size larger than absorbed power.

Absorbed power = 0.7 kW, therefore refer to 0.75 kW selection table.

Always select from 4 POLE selection table in the first instance as this offers a more economical solution.

Required output speed of gearbox = 63 rev/min

**0.75 kW**

4 POLE

| N2 R/MIN     | i     | M2 Nm         | Fm             | N             | Unit Designation |              | kg Kg                     |            |
|--------------|-------|---------------|----------------|---------------|------------------|--------------|---------------------------|------------|
| Output Speed | Ratio | Output Torque | Service Factor | Overhung Load | Column Entry     | 1 Through 20 | Weight of base mount unit | Motor Size |
| 72.29        | 19.64 | 97            | 3.83           | 5715          | F0423 20.        | M .75A --    | 37                        | 80         |
| 65.18        | 21.79 | 107           | 3.50           | 5854          | F0423 22.        | M .75A --    | 37                        | 80         |
| 57.37        | 24.75 | 122           | 3.15           | 6013          | F0423 25.        | M .75A --    | 37                        | 80         |
| 50.50        | 28.12 | 138           | 2.83           | 6324          | F0423 28.        | M .75A --    | 37                        | 80         |
| 45.86        | 30.97 | 152           | 2.60           | 6400          | F0423 32.        | M .75A --    | 37                        | 80         |
| 39.87        | 35.62 | 175           | 2.31           | 6400          | F0423 36.        | M .75A --    | 37                        | 80         |
| 36.67        | 38.72 | 190           | 2.15           | 6400          | F0423 40.        | M .75A --    | 37                        | 80         |
| 30.55        | 46.49 | 229           | 1.84           | 6400          | F0423 50.        | M .75A --    | 37                        | 80         |

Go to point 4

# F SERIES

## SELECTION PROCEDURE FOR MOTORISED UNITS

### 4 CHECK OUTPUT TORQUE

Output torque (M2) of selected unit must be equal or more than required output torque at gearbox outputshaft.

Required output torque at gearbox outputshaft = 106 Nm

| 0.75 kW<br>4 POLE | N2<br>R/MIN     | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                                 | kg                              |               |
|-------------------|-----------------|-------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
|                   | Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> Through <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Spaces to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
|                   | 72.29           | 19.64 | 97               | 3.83              | 5715             | F0423 20. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 65.18           | 21.79 | 107              | 3.50              | 5854             | F0423 22. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 57.37           | 24.75 | 122              | 3.15              | 6013             | F0423 25. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 50.50           | 28.12 | 138              | 2.83              | 6324             | F0423 28. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 45.86           | 30.97 | 152              | 2.60              | 6400             | F0423 32. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 39.87           | 35.62 | 175              | 2.31              | 6400             | F0423 36. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 36.67           | 38.72 | 190              | 2.15              | 6400             | F0423 40. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 30.55           | 46.49 | 229              | 1.84              | 6400             | F0423 50. M .75A - -                                                                                                                                                                             | 37                              | 80            |

Selected unit's output torque (M2) = 107 Nm, therefore unit is acceptable

### 5 CHECK SERVICE FACTOR

Service factor (Fm) of selected unit must be equal or more than required service factor.

Required service factor of gearbox = 1.25

| 0.75 kW<br>4 POLE | N2<br>R/MIN     | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                                 | kg                              |               |
|-------------------|-----------------|-------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
|                   | Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> Through <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Spaces to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
|                   | 72.29           | 19.64 | 97               | 3.83              | 5715             | F0423 20. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 65.18           | 21.79 | 107              | 3.50              | 5854             | F0423 22. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 57.37           | 24.75 | 122              | 3.15              | 6013             | F0423 25. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 50.50           | 28.12 | 138              | 2.83              | 6324             | F0423 28. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 45.86           | 30.97 | 152              | 2.60              | 6400             | F0423 32. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 39.87           | 35.62 | 175              | 2.31              | 6400             | F0423 36. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 36.67           | 38.72 | 190              | 2.15              | 6400             | F0423 40. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 30.55           | 46.49 | 229              | 1.84              | 6400             | F0423 50. M .75A - -                                                                                                                                                                             | 37                              | 80            |

Selected unit's service factor (Fm) = 3.5 therefore unit is acceptable.

### 6 CHECK OVERHUNG LOADS

If sprocket, gear, etc is mounted on the output shaft then refer to Overhung Loads Procedure and compare with allowable overhung load (N) of selected unit

Allowable overhung load (N) must be equal or more than calculated overhung load (P)

| 0.75 kW<br>4 POLE | N2<br>R/MIN     | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                                 | kg                              |               |
|-------------------|-----------------|-------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
|                   | Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> Through <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Spaces to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
|                   | 72.29           | 19.64 | 97               | 3.83              | 5715             | F0423 20. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 65.18           | 21.79 | 107              | 3.50              | 5854             | F0423 22. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 57.37           | 24.75 | 122              | 3.15              | 6013             | F0423 25. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 50.50           | 28.12 | 138              | 2.83              | 6324             | F0423 28. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 45.86           | 30.97 | 152              | 2.60              | 6400             | F0423 32. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 39.87           | 35.62 | 175              | 2.31              | 6400             | F0423 36. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 36.67           | 38.72 | 190              | 2.15              | 6400             | F0423 40. M .75A - -                                                                                                                                                                             | 37                              | 80            |
|                   | 30.55           | 46.49 | 229              | 1.84              | 6400             | F0423 50. M .75A - -                                                                                                                                                                             | 37                              | 80            |

NOTE: If any of the following conditions occur then consult Application Engineering:-

- a) Inertia of the Driven Machine (Referred to motor speed) >10      b) Ambient temperature is above 40°C  
Inertia of Gear Unit plus Motor

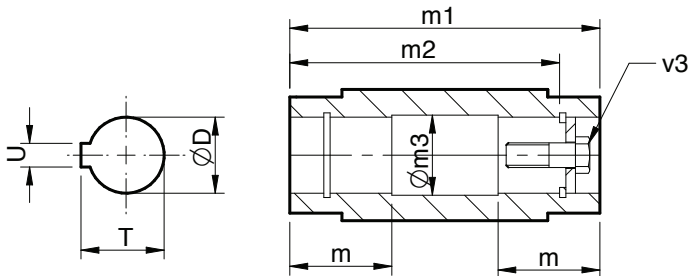
# F SERIES

## OUTPUT BORE OPTIONS

### Column 11 Entry

Standard Hollow Shaft H

Inch Hollow Shaft A



| Size | Type of Bore | Column 11 Entry | Dimensions in mm (inch shaft in inches) |       |        |        |       |       |         |                   |
|------|--------------|-----------------|-----------------------------------------|-------|--------|--------|-------|-------|---------|-------------------|
|      |              |                 | Ø D                                     | m     | m1     | m2     | Øm3   | T     | U       | v3                |
| F02  | Standard     | H               | 25.021 / 25.000                         | 45.5  | 117.5  | 89     | 25.5  | 28.3  | 8       | M10x50            |
|      | Inch         | A               | 1.001" / 1.000"                         | 1.80" | 4.63"  | 3.5"   | 1.02" | 1.11" | 0.250"  | 0.375" UNF x 2"   |
| F03  | Standard     | H               | 30.021 / 30.000                         | 52    | 120    | 105    | 30.5  | 33.3  | 8       | M10x50            |
|      | Inch         | A               | 1.251 / 1.250                           | 2.00" | 4.72"  | 4.13"  | 1.27" | 1.37" | 0.250"  | 0.375" UNF x 2"   |
| F04  | Standard     | H               | 35.025 / 35.000                         | 65    | 150    | 132    | 35.5  | 38.3  | 10      | M12x55            |
|      | Inch         | A               | 1.376" / 1.375"                         | 2.56" | 5.91"  | 5.20"  | 1.39" | 1.53" | 0.3125" | 0.50" UNF x 2.25" |
| F05  | Standard     | H               | 40.025 / 40.000                         | 65    | 166    | 142    | 40.5  | 43.3  | 12      | M16x70            |
|      | Inch         | A               | 1.501" / 1.500"                         | 2.56" | 6.54"  | 5.59"  | 1.52" | 1.67" | 0.375"  | 0.625" UNF x 2.75 |
| F06  | Standard     | H               | 40.025 / 40.000                         | 90    | 200    | 156    | 40.5  | 43.3  | 12      | M16x70            |
|      | Inch         | A               | 1.501" / 1.500"                         | 3.54" | 7.87"  | 6.14"  | 1.52" | 1.67" | 0.375"  | 0.625" UNF x 2.75 |
| F07  | Standard     | H               | 50.025 / 50.000                         | 105   | 235    | 183    | 50.5  | 53.8  | 14      | M16x70            |
|      | Inch         | A               | 2.001" / 2.000"                         | 4.13" | 9.25"  | 7.20"  | 2.02" | 2.22" | 0.500"  | 0.625" UNF X 2.75 |
| F08  | Standard     | H               | 60.030 / 60.000                         | 117   | 265    | 210    | 60.5  | 64.4  | 18      | M20x80            |
|      | Inch         | A               | 2.3762" / 2.3750"                       | 4.60" | 10.43" | 8.27"  | 2.40" | 2.65" | 0.625"  | 0.75" UNF X 3.25  |
| F09  | Standard     | H               | 70.030 / 70.000                         | 147   | 330    | 270    | 70.5  | 74.9  | 20      | M20x80            |
|      | Inch         | A               | 2.7512" / 2.7500"                       | 5.80" | 12.99" | 10.63" | 2.77" | 3.03" | 0.625"  | 0.75" UNF X 3.25  |
| F10  | Standard     | H               | 90.035 / 90.000                         | 165   | 370    | 313    | 90.5  | 95.4  | 25      | M24x80            |
|      | Inch         | A               | 3.6264" / 3.6250"                       | 6.50" | 14.57" | 12.32" | 3.64" | 4.01" | 0.875"  | 0.75" UNF X 4.25  |

# F SERIES

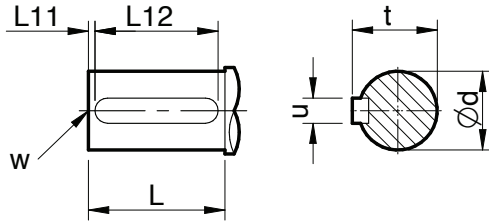
## OUTPUT SHAFT OPTIONS

### Column 11 Entry

Metric Single Extension



Inch Single Extension



| Size | Type of Output Shaft | Column 11 Entry | Dimensions in mm (inch shaft in inches) |        |     |       |       |         |                   |
|------|----------------------|-----------------|-----------------------------------------|--------|-----|-------|-------|---------|-------------------|
|      |                      |                 | ø d                                     | L      | L11 | L12   | t     | u       | W                 |
| F02  | Metric               | C               | -                                       | -      | -   | -     | -     | -       | -                 |
|      | Inch                 | N               | -                                       | -      | -   | -     | -     | -       | -                 |
| F03  | Metric               | C               | 25.015 / 25.002                         | 47     | 3   | 40    | 28    | 8       | M10 x 1.5 x 22    |
|      | Inch                 | N               | 1.0000" / 0.9995"                       | 1.85"  | *   | 1.69" | 1.11" | 0.250"  | 0.375" x 0.75"    |
| F04  | Metric               | C               | 30.015 / 30.002                         | 56     | 3   | 50    | 33    | 8       | M12 x 1.75 x 28   |
|      | Inch                 | N               | 1.2500" / 1.2495"                       | 2.20"  | *   | 2.13" | 1.36" | 0.250"  | 0.5" UNF x 1.13"  |
| F05  | Metric               | C               | 35.018 / 35.002                         | 66     | 3   | 60    | 38    | 10      | M16 x 2.0 x 36    |
|      | Inch                 | N               | 1.3750" / 1.3745"                       | 2.60"  | *   | 2.50" | 1.51" | 0.3125" | 0.625 UNF x 1.5"  |
| F06  | Metric               | C               | 40.018 / 40.002                         | 76     | 3   | 70    | 43    | 12      | M16 x 2.0 x 36    |
|      | Inch                 | N               | 1.625" / 1.624"                         | 3.00"  | *   | 2.50" | 1.78" | 0.375"  | 0.625" UNF x 1.5" |
| F07  | Metric               | C               | 50.018 / 50.002                         | 95     | 3   | 80    | 53.5  | 14      | M16 x 2.0 x 36    |
|      | Inch                 | N               | 2.000" / 1.999"                         | 3.74"  | *   | 3.00" | 2.23" | 0.500"  | 0.625" UNF x 1.5" |
| F08  | Metric               | C               | 60.030 / 60.011                         | 114    | 3   | 100   | 64    | 18      | M20 x 2.5 x 42    |
|      | Inch                 | N               | 2.3750" / 2.3740"                       | 4.488" | *   | 4.00" | 2.65" | 0.625"  | 0.75" UNF x 1.65" |
| F09  | Metric               | C               | 70.030 / 70.011                         | 135    | 3   | 110   | 74.5  | 20      | M20 x 2.5 x 42    |
|      | Inch                 | N               | 2.875" / 2.874"                         | 5.315" | *   | 5.00" | 3.20" | 0.750"  | 0.75" UNF x 1.65" |
| F10  | Metric               | C               | 90.035 / 90.013                         | 172    | 5   | 140   | 95    | 25      | M24 x 3.0 x 50    |
|      | Inch                 | N               | 3.625" / 3.624"                         | 6.772" | *   | 6.38" | 4.01" | 0.875"  | 0.75" UNF x 1.65" |

\* Inch shaft has an open ended keyway, therefore no 'L11' dimension is required

# F SERIES

## MOTOR ADAPTERS

### IEC & NEMA

#### Double Reduction Units

##### Compact Motor 4 Pole - Column 12 Entry - D

| Power   | F0223     |          | F0323     |           | F0423     |           | F0523     |           | F0623     |           | F0723     |           | F0823     |           |
|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|         | 5.0 - 14. | 16 - 90. | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 |
| 0.25 Kw | •         | •        | •         | •         | -         | •         | -         | -         | -         | -         | -         | -         | -         | -         |
| 0.37 Kw | •         | •        | •         | •         | -         | •         | -         | -         | -         | -         | -         | -         | -         | -         |
| 0.55 Kw | •         | •        | •         | •         | •         | •         | -         | •         | •         | •         | -         | -         | -         | -         |
| 0.75 Kw | •         | •        | •         | •         | •         | •         | -         | •         | •         | •         | -         | -         | -         | -         |
| 1.1 Kw  | •         | -        | •         | -         | •         | -         | •         | •         | •         | •         | -         | •         | -         | -         |
| 1.5 Kw  | •         | -        | •         | -         | •         | -         | •         | •         | •         | •         | -         | •         | -         | -         |
| 2.2 Kw  | -         | -        | -         | -         | -         | -         | •         | •         | •         | •         | -         | •         | -         | •         |
| 3.0 Kw  | -         | -        | -         | -         | -         | -         | •         | •         | •         | •         | -         | •         | -         | •         |
| 4.0 Kw  | -         | -        | -         | -         | -         | -         | •         | -         | •         | -         | -         | •         | -         | •         |
| 5.5 Kw  | -         | -        | -         | -         | -         | -         | •         | -         | •         | -         | -         | •         | -         | •         |
| 7.5 Kw  | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | •         | -         | •         |

##### Standard Motor IEC B14- Column 12 entry

| Motor | F0223     |          | F0323     |           | F0423     |           | F0523     |           | F0623     |           | F0723     |           |
|-------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|       | 5.0 - 14. | 16 - 90. | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 16. | 20. - 100 |
| 71    | H         | H        | H         | H         | -         | H         | -         | -         | -         | -         | -         | -         |
| 80    | B         | K        | B         | K         | B         | K         | -         | G         | -         | G         | -         | G         |
| 90    | D         | R        | D         | R         | D         | R         | Z         | J         | Z         | J         | -         | J         |
| 100   | E         | S        | E         | S         | E         | S         | B         | L         | B         | L         | B         | L         |
| 112   | E         | S        | E         | S         | E         | S         | B         | L         | B         | L         | B         | L         |
| 132   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | D         | N         |

##### Standard Motor IEC B5- Column 12 entry

| Motor | F0223     |          | F0323     |           | F0423     |           | F0523     |           | F0623     |           | F0723     |           | F0823     |           | F0923     |           | F1023     |           |
|-------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|       | 5.0 - 14. | 16 - 90. | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 25. | 28. - 100 |
| 63    | F         | F        | F         | F         | -         | F         | -         | V         | -         | V         | -         | -         | -         | -         | -         | -         | -         | -         |
| 71    | G         | G        | G         | G         | -         | G         | -         | D         | -         | D         | -         | -         | -         | -         | -         | -         | -         | -         |
| 80    | A         | J        | A         | J         | A         | J         | W         | F         | W         | F         | -         | F         | -         | D         | -         | F         | -         | -         |
| 90    | C         | Q        | C         | Q         | C         | Q         | Y         | H         | Y         | H         | -         | H         | -         | E         | -         | F         | -         | -         |
| 100   | -         | -        | -         | -         | -         | -         | A         | K         | A         | K         | A         | K         | A         | F         | -         | G         | -         | E         |
| 112   | -         | -        | -         | -         | -         | -         | A         | K         | A         | K         | A         | K         | A         | F         | -         | G         | -         | F         |
| 132   | -         | -        | -         | -         | -         | -         | N         | P         | N         | P         | A         | C         | B         | G         | -         | H         | -         | F         |
| 160   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | E         | P         | C         | H         | A         | J         | A         | G         |
| 180   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | B         | K         | B         | H         |
| 200   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | C         | L         | C         | J         |
| 225   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | D         | M         | D         | K         |
| 250   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 280   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 315   | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

##### NEMA Motor C Face- Column 12 entry

| Motor     | F0223     |          | F0323     |           | F0423     |           | F0523     |           | F0623     |           | F0723     |           | F0823     |           | F0923     |           | F1023     |           |
|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           | 5.0 - 14. | 16 - 90. | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 20. | 22. - 100 | 6.3 - 16. | 20. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 25. | 28. - 100 | 6.3 - 25. | 28. - 100 |
| 56C       | T         | U        | T         | U         | T         | U         | -         | Q         | -         | Q         | -         | Q         | -         | M         | -         | -         | -         | -         |
| 143/145TC | V         | W        | V         | W         | V         | W         | -         | R         | -         | R         | -         | R         | -         | N         | -         | -         | -         | -         |
| 182/184TC | X         | -        | X         | -         | X         | -         | S         | T         | S         | T         | S         | T         | J         | P         | -         | S         | -         | P         |
| 213/215TC | -         | -        | -         | -         | -         | -         | U         | -         | U         | -         | U         | V         | K         | Q         | P         | T         | -         | Q         |
| 254/256TC | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | W         | -         | L         | U         | -         | U         | -         | R         |
| 284/286TC | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | Q         | V         | M         | S         |
| 324/326TC | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | R         | W         | N         | T         |
| 364/365TC | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 404/405TC | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 444/445TC | -         | -        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

# F SERIES

## MOTOR ADAPTERS

### IEC & NEMA

#### Triple Reduction Units

##### Compact Motor 4 Pole - Column 12 Entry - D

| Power   | F0233     | F0333     | F0433     | F0533     | F0633     | F0733    | F0833     | F0933     |
|---------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|
|         | 80. - 320 | 71. - 360 | 71. - 360 | 100 - 360 | 100 - 360 | 80 - 360 | 100 - 360 | 100 - 360 |
| 0.25 Kw | •         | •         | •         | •         | •         | -        | -         | -         |
| 0.37 Kw | •         | •         | •         | •         | •         | -        | -         | -         |
| 0.55 Kw | •         | •         | •         | •         | •         | •        | -         | -         |
| 0.75 Kw | •         | •         | •         | •         | •         | •        | -         | -         |
| 1.1 Kw  | -         | -         | -         | -         | -         | •        | •         | -         |
| 1.5 Kw  | -         | -         | -         | -         | -         | •        | •         | -         |
| 2.2 Kw  | -         | -         | -         | -         | -         | •        | •         | •         |
| 3.0 Kw  | -         | -         | -         | -         | -         | •        | •         | •         |
| 4.0 Kw  | -         | -         | -         | -         | -         | -        | •         | •         |
| 5.5 Kw  | -         | -         | -         | -         | -         | -        | •         | •         |
| 7.5 Kw  | -         | -         | -         | -         | -         | -        | •         | •         |

##### Standard Motor IEC B14- Column 12 entry

| Motor | F0233     | F0333     | F0433     | F0533     | F0633     | F0733    | F0833     |
|-------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
|       | 80. - 320 | 71. - 360 | 71. - 360 | 100 - 360 | 100 - 360 | 80 - 360 | 100 - 360 |
| 71    | H         | H         | H         | H         | H         | -        | -         |
| 80    | K         | K         | K         | K         | K         | G        | G         |
| 90    | R         | R         | R         | R         | R         | J        | J         |
| 100   | S         | S         | S         | S         | S         | L        | L         |
| 112   | S         | S         | S         | S         | S         | L        | L         |
| 132   | -         | -         | -         | -         | -         | -        | N         |

##### Standard Motor IEC B5- Column 12 entry

| Motor | F0233     | F0333     | F0433     | F0533     | F0633     | F0733    | F0833     | F0933     | F1033     |
|-------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|
|       | 80. - 320 | 71. - 360 | 71. - 360 | 100 - 360 | 100 - 360 | 80 - 360 | 100 - 360 | 100 - 360 | 100 - 360 |
| 63    | F         | F         | F         | F         | F         | V        | -         | -         | -         |
| 71    | G         | G         | G         | G         | G         | D        | -         | -         | -         |
| 80    | J         | J         | J         | J         | J         | F        | F         | D         | E         |
| 90    | Q         | Q         | Q         | Q         | Q         | H        | H         | E         | F         |
| 100   | -         | -         | -         | -         | -         | K        | K         | F         | G         |
| 112   | -         | -         | -         | -         | -         | K        | K         | F         | G         |
| 132   | -         | -         | -         | -         | -         | -        | M         | G         | H         |
| 160   | -         | -         | -         | -         | -         | -        | P         | H         | J         |
| 180   | -         | -         | -         | -         | -         | -        | -         | -         | K         |
| 200   | -         | -         | -         | -         | -         | -        | -         | -         | L         |
| 225   | -         | -         | -         | -         | -         | -        | -         | -         | M         |

##### NEMA Motor C Face- Column 12 entry

| Motor     | F0233     | F0333     | F0433     | F0533     | F0633     | F0733    | F0833     | F0933     | F1033     |
|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|
|           | 80. - 320 | 71. - 360 | 71. - 360 | 100 - 360 | 100 - 360 | 80 - 360 | 100 - 360 | 100 - 360 | 100 - 360 |
| 56C       | U         | U         | U         | U         | U         | Q        | Q         | M         | -         |
| 143/145TC | W         | W         | W         | W         | W         | R        | R         | N         | -         |
| 182/184TC | -         | -         | -         | -         | -         | T        | T         | P         | S         |
| 213/215TC | -         | -         | -         | -         | -         | -        | V         | Q         | T         |
| 254/256TC | -         | -         | -         | -         | -         | -        | -         | U         | U         |
| 284/286TC | -         | -         | -         | -         | -         | -        | -         | -         | V         |
| 324/326TC | -         | -         | -         | -         | -         | -        | -         | -         | W         |

# F SERIES

## MOTOR ADAPTERS IEC & NEMA

### Quadruple Reduction Units

#### Compact Motor 4 Pole - Column 12 Entry - D

|         | F0343           | F0443           | F0543           | F0643           | F0743           | F0843           | F0943           | F1043           |
|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Power   | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ |
| 0.25 Kw | •               | •               | •               | •               | •               | -               | -               | -               |
| 0.37 Kw | •               | •               | •               | •               | •               | -               | -               | -               |
| 0.55 Kw | •               | •               | •               | •               | •               | •               | •               | -               |
| 0.75 Kw | •               | •               | •               | •               | •               | •               | •               | -               |
| 1.1 Kw  | -               | -               | -               | -               | -               | •               | •               | •               |
| 1.5 Kw  | -               | -               | -               | -               | -               | •               | •               | •               |
| 2.2 Kw  | -               | -               | -               | -               | -               | •               | •               | •               |
| 3.0 Kw  | -               | -               | -               | -               | -               | •               | •               | •               |
| 4.0 Kw  | -               | -               | -               | -               | -               | -               | -               | •               |
| 5.5 Kw  | -               | -               | -               | -               | -               | -               | -               | •               |
| 7.5 Kw  | -               | -               | -               | -               | -               | -               | -               | •               |

#### Standard Motor IEC B14- Column 12 entry

|       | F0343           | F0443           | F0543           | F0643           | F0743           | F0843           | F0943           | F1043           |
|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Motor | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ |
| 71    | H               | H               | H               | H               | H               | -               | -               | -               |
| 80    | K               | K               | K               | K               | K               | G               | G               | G               |
| 90    | R               | R               | R               | R               | R               | J               | J               | J               |
| 100   | S               | S               | S               | S               | S               | L               | L               | L               |
| 112   | S               | S               | S               | S               | S               | L               | L               | L               |
| 132   | -               | -               | -               | -               | -               | -               | -               | N               |

#### Standard Motor IEC B5- Column 12 entry

|       | F0343           | F0443           | F0543           | F0643           | F0743           | F0843           | F0943           | F1043           |
|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Motor | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ | $\frac{+}{400}$ |
| 63    | F               | F               | F               | F               | F               | V               | V               | -               |
| 71    | G               | G               | G               | G               | G               | D               | D               | -               |
| 80    | J               | J               | J               | J               | J               | F               | F               | F               |
| 90    | Q               | Q               | Q               | Q               | Q               | H               | H               | H               |
| 100   | -               | -               | -               | -               | -               | K               | K               | K               |
| 112   | -               | -               | -               | -               | -               | K               | K               | K               |
| 132   | -               | -               | -               | -               | -               | P               | P               | M               |
| 160   | -               | -               | -               | -               | -               | -               | -               | P               |

#### NEMA Motor C Face- Column 12 entry

|           | F0343            | F0443            | F0543            | F0643             | F0743             | F0843            | F0943             | F1043             |
|-----------|------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| Motor     | $\frac{80}{320}$ | $\frac{71}{360}$ | $\frac{71}{360}$ | $\frac{100}{360}$ | $\frac{100}{360}$ | $\frac{80}{360}$ | $\frac{100}{360}$ | $\frac{100}{360}$ |
| 56C       | U                | U                | U                | U                 | U                 | Q                | Q                 | Q                 |
| 143/145TC | W                | W                | W                | W                 | W                 | R                | R                 | R                 |
| 182/184TC | -                | -                | -                | -                 | -                 | T                | T                 | T                 |
| 213/215TC | -                | -                | -                | -                 | -                 | -                | -                 | V                 |

F02, F03, F04, F05, F06 & F07 Units & Primary Units used for Quintuple Reduction, are supplied factory filled with EP mineral oil (Grade 6E) appropriate to the intended mounting position. If the unit is supplied without lubricant the unit must be filled with the correct lubricant and quantity as listed below:

F08, F09, & F10 Units require filling with EP mineral oil (Grade 6E)

Lubricant quantities are approximate fill until oil escapes from the level plug hole, fit ventilator plug (when supplied) in the appropriate position for the required mounting position (see installation and maintenance instructions)

### Temperature Limitations

The standard lubricant is suitable for operation in ambient temperatures of 0° to 35°C, outside of this consult Table 1 or consult Application Engineering.

**Table 1 Oil Grades**

| Lubricant                                | Ambient temperature range           |             |             |
|------------------------------------------|-------------------------------------|-------------|-------------|
|                                          | -5°C - 20°C (E)<br>-30°C - 20°C (H) | 0°C - 35°C  | 20°C - 50°C |
| EP Mineral Oil (type E)                  | 5E (VG 220)                         | 6E (VG 320) | 7E (VG 460) |
| Polyalphaolefin based Synthetic (type H) | 5H (VG 220)                         | 5H (VG 220) | 6H (VG 320) |

### Lubricant Quantities (Litres)

| Double Reduction  |   |       |       |       |       |       |       |       |       |       |
|-------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Size              |   | F0223 | F0323 | F0423 | F0523 | F0623 | F0723 | F0823 | F0923 | F1023 |
| Mounting Position | 1 | 0.80  | 1.20  | 1.70  | 2.30  | 4.70  | 8.50  | 12.50 | 21.00 | 36.00 |
|                   | 2 | 0.40  | 0.60  | 1.10  | 1.80  | 2.50  | 4.50  | 9.00  | 15.00 | 22.50 |
|                   | 3 | 0.40  | 0.60  | 1.40  | 1.80  | 3.90  | 7.50  | 11.00 | 17.50 | 29.00 |
|                   | 4 | 0.50  | 0.75  | 1.20  | 2.00  | 2.60  | 7.50  | 10.50 | 17.00 | 29.00 |
|                   | 5 | 1.10  | 1.20  | 2.80  | 2.80  | 3.90  | 7.50  | 14.00 | 26.00 | 45.00 |
|                   | 6 | 1.30  | 1.50  | 2.10  | 3.20  | 5.00  | 8.50  | 15.00 | 26.00 | 45.00 |

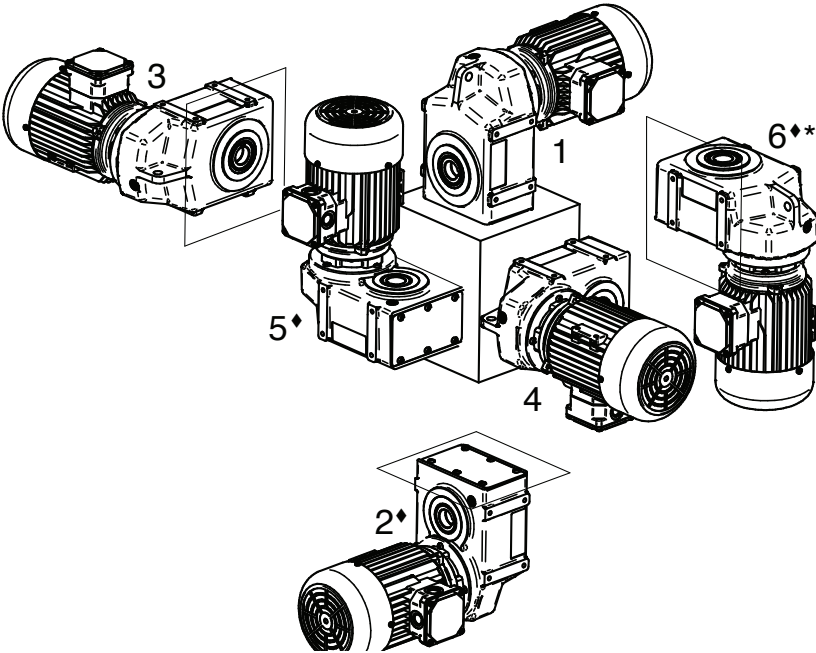
| Triple Reduction  |   |       |       |       |       |       |       |       |       |       |
|-------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Size              |   | F0233 | F0333 | F0433 | F0533 | F0633 | F0733 | F0833 | F0933 | F1033 |
| Mounting Position | 1 | 0.80  | 1.20  | 1.70  | 2.30  | 4.70  | 8.50  | 12.50 | 21.00 | 34.0  |
|                   | 2 | 0.40  | 0.60  | 1.15  | 1.85  | 2.60  | 4.60  | 9.20  | 17.00 | 24.0  |
|                   | 3 | 0.40  | 0.60  | 1.45  | 1.85  | 4.00  | 7.60  | 11.20 | 19.50 | 29.0  |
|                   | 4 | 0.50  | 0.75  | 1.25  | 2.05  | 2.70  | 7.60  | 10.70 | 19.00 | 29.0  |
|                   | 5 | 1.10  | 1.20  | 2.80  | 2.80  | 3.90  | 7.50  | 14.00 | 26.00 | 45.0  |
|                   | 6 | 1.30  | 1.50  | 2.15  | 3.25  | 5.10  | 8.70  | 15.20 | 28.00 | 47.0  |

| Quadruple Reduction |   |         |           |         |           |         |           |         |           |  |
|---------------------|---|---------|-----------|---------|-----------|---------|-----------|---------|-----------|--|
| Size                |   | F0343   |           | F0443   |           | F0543   |           | F0643   |           |  |
|                     |   | Primary | Secondary | Primary | Secondary | Primary | Secondary | Primary | Secondary |  |
|                     |   | R0122   | F0323     | R0122   | F0423     | R0322   | F0523     | R0322   | F0623     |  |
| Mounting Position   | 1 | 0.50    | 1.20      | 0.50    | 1.70      | 0.80    | 2.30      | 0.80    | 4.70      |  |
|                     | 2 | 0.50    | 0.60      | 0.50    | 1.10      | 0.80    | 1.80      | 0.80    | 2.50      |  |
|                     | 3 | 0.50    | 0.60      | 0.50    | 1.40      | 0.80    | 1.80      | 0.80    | 3.90      |  |
|                     | 4 | 0.50    | 0.75      | 0.50    | 1.20      | 0.80    | 2.00      | 0.80    | 2.60      |  |
|                     | 5 | 0.70    | 1.20      | 0.70    | 2.80      | 1.10    | 2.80      | 1.10    | 3.90      |  |
|                     | 6 | 1.00    | 1.50      | 1.00    | 2.10      | 1.40    | 3.20      | 1.40    | 5.00      |  |

| Quadruple Reduction |   |         |           |         |           |         |           |         |           |  |
|---------------------|---|---------|-----------|---------|-----------|---------|-----------|---------|-----------|--|
| Size                |   | F0743   |           | F0843   |           | F0943   |           | F1043   |           |  |
|                     |   | Primary | Secondary | Primary | Secondary | Primary | Secondary | Primary | Secondary |  |
|                     |   | R0322   | F0723     | R0522   | F0823     | R0522   | F0923     | R0722   | F1023     |  |
| Mounting Position   | 1 | 0.80    | 8.50      | 1.50    | 12.50     | 1.50    | 21.00     | 2.60    | 36.00     |  |
|                     | 2 | 0.80    | 4.50      | 1.50    | 9.00      | 1.50    | 15.00     | 2.60    | 22.50     |  |
|                     | 3 | 0.80    | 7.50      | 1.50    | 11.00     | 1.50    | 17.50     | 2.60    | 29.00     |  |
|                     | 4 | 0.80    | 7.50      | 1.50    | 10.50     | 1.50    | 17.00     | 2.60    | 29.00     |  |
|                     | 5 | 1.10    | 7.50      | 2.00    | 14.00     | 2.00    | 26.00     | 3.20    | 45.00     |  |
|                     | 6 | 1.40    | 8.50      | 2.60    | 15.00     | 2.60    | 26.00     | 4.70    | 45.00     |  |

MOUNTING POSITIONS

Column 13 entry



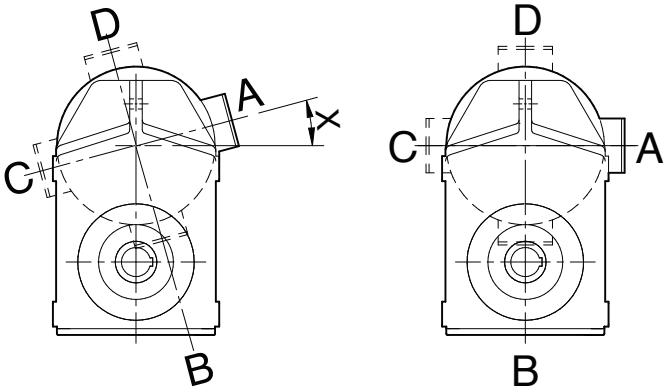
\* Not Recommended for Geared Motors - Consult Application Engineering

† Gear Units selected for use in mounting positions 5 and 6 should only be used with overall ratios greater or equal to those shown in the table below

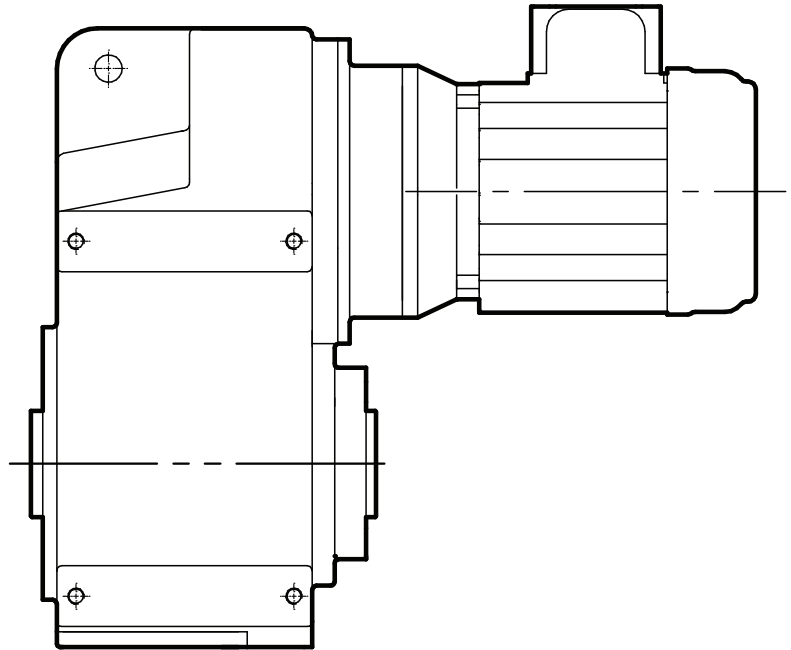
| Size | Input Speed (rpm) |        |        |                                       |
|------|-------------------|--------|--------|---------------------------------------|
|      | < 1000            | < 1500 | < 1800 | > 1800                                |
| F08  | All               | All    | All    | Consult<br>Application<br>Engineering |
| F09  | All               | 11.0   | 14.0   |                                       |
| F10  | 11.0              | 20     | 25.0   |                                       |

Mounting Positions - shown as motorised - applies also for reducers

Column 14 entry



| Column 14 entry | Terminal Box Position (X)  |           |
|-----------------|----------------------------|-----------|
|                 | F02                        | F03 - F10 |
| A               | 15°                        | 0°        |
| B               | 105°                       | 90°       |
| C               | 195°                       | 180°      |
| D               | 285°                       | 270°      |
| -               | Reducer or no motor fitted |           |



## MOTORISED F SERIES

# F SERIES

## MOTOR

### PERFORMANCE DATA

#### TEFC Squirrel Cage 3 Phase Motors 4 poles = 1500 rpm 400V, 50Hz, S1 IP55, Class F IE2 Efficiency Class

| P (kW) | Frame Size | n RPM | I (A) | Ist / I | Tst / T | J (kgm <sup>2</sup> ) |
|--------|------------|-------|-------|---------|---------|-----------------------|
| 0.12   | 63         | 1360  | 0.6   | 2.6     | 2.5     | 0.0004                |
| 0.18   | 63         | 1370  | 0.72  | 3.0     | 2.2     | 0.0005                |
| 0.25   | 71         | 1370  | 0.65  | 3.5     | 2.0     | 0.0007                |
| 0.37   | 71         | 1380  | 0.88  | 4.0     | 2.1     | 0.0009                |
| 0.55   | 80         | 1420  | 1.45  | 5.0     | 2.0     | 0.0015                |
| 0.75   | 80         | 1420  | 1.8   | 5.3     | 2.7     | 0.0020                |
| 1.1    | 90S        | 1430  | 2.4   | 6.2     | 2.7     | 0.0045                |
| 1.5    | 90L        | 1430  | 3.3   | 6.3     | 2.7     | 0.0053                |
| 2.2    | 100L       | 1450  | 4.7   | 6.4     | 2.9     | 0.0085                |
| 3.0    | 100L       | 1450  | 6.3   | 7.7     | 2.9     | 0.0110                |
| 4.0    | 112M       | 1450  | 8.2   | 7.0     | 2.9     | 0.0125                |
| 5.5    | 132S       | 1450  | 11.1  | 5.9     | 2.0     | 0.033                 |
| 7.5    | 132M       | 1450  | 14.8  | 5.6     | 2.0     | 0.036                 |
| 11     | 160M       | 1460  | 21    | 6.7     | 2.2     | 0.081                 |
| 15     | 160L       | 1460  | 28.5  | 7.1     | 2.6     | 0.099                 |
| 18.5   | 180M       | 1470  | 35    | 7.2     | 2.6     | 0.166                 |
| 22     | 180L       | 1470  | 41    | 7.3     | 2.6     | 0.195                 |
| 30     | 200L       | 1470  | 56    | 6.7     | 2.2     | 0.31                  |
| 37     | 225S       | 1470  | 68    | 7.1     | 2.6     | 0.36                  |
| 45     | 225M       | 1480  | 83    | 7.5     | 2.7     | 0.44                  |
| 55     | 250M       | 1480  | 98    | 7.5     | 2.6     | 0.77                  |
| 75     | 280S       | 1480  | 134   | 6.8     | 2.5     | 1.25                  |
| 90.0   | 280M       | 1480  | 160   | 7.1     | 2.5     | 1.50                  |
| 110    | 315S       | 1480  | 195   | 7.7     | 2.4     | 2.30                  |
| 132    | 315M       | 1480  | 232   | 7.2     | 2.4     | 2.60                  |
| 160    | 315L       | 1480  | 284   | 7.2     | 2.4     | 2.90                  |

#### TEFC Squirrel Cage 3 Phase Motors 6 poles = 1000 rpm 400V, 50Hz, S1 IP55, Class F IE2 Efficiency Class

| P (kW) | Frame Size | n RPM | I (A) | Ist / I | Tst / T | J (kgm <sup>2</sup> ) |
|--------|------------|-------|-------|---------|---------|-----------------------|
| 0.12   | 63         | 900   | 0.57  | 2.1     | 2.1     | 0.0007                |
| 0.18   | 71         | 900   | 0.6   | 3.1     | 2       | 0.0009                |
| 0.25   | 71         | 920   | 0.77  | 3.4     | 2.1     | 0.0011                |
| 0.37   | 80         | 920   | 1.09  | 3.6     | 2.2     | 0.0019                |
| 0.55   | 80         | 920   | 1.51  | 3.8     | 1.8     | 0.0024                |
| 0.75   | 90S        | 930   | 2.36  | 4.5     | 1.8     | 0.005                 |
| 1.1    | 90L        | 930   | 3     | 4       | 2.3     | 0.006                 |
| 1.5    | 100L       | 940   | 3.8   | 4       | 1.9     | 0.009                 |
| 2.2    | 112M       | 940   | 5.5   | 4.5     | 1.7     | 0.0125                |
| 3      | 132S       | 960   | 8     | 5.5     | 1.8     | 0.033                 |
| 4      | 132M       | 960   | 10    | 4.6     | 1.7     | 0.038                 |
| 5.5    | 132M       | 960   | 12.9  | 5.1     | 2       | 0.045                 |
| 7.5    | 160M       | 970   | 15.4  | 7.4     | 1.7     | 0.087                 |
| 11     | 160L       | 970   | 23    | 7.5     | 1.9     | 0.114                 |
| 15     | 180L       | 970   | 31    | 6.5     | 1.8     | 0.192                 |
| 18.5   | 200L       | 980   | 36    | 6.7     | 2.2     | 0.380                 |
| 22     | 200L       | 980   | 43    | 6.6     | 2.2     | 0.440                 |
| 30     | 225M       | 985   | 56    | 7       | 2.6     | 0.660                 |
| 37     | 250M       | 985   | 69    | 6.8     | 2.7     | 1.16                  |
| 45     | 280S       | 985   | 85    | 7       | 2.5     | 1.85                  |
| 55     | 280M       | 985   | 100   | 7       | 2.7     | 2.20                  |
| 75     | 315S       | 985   | 139   | 7.4     | 2.4     | 3.20                  |
| 90     | 315M       | 985   | 163   | 7.5     | 2.4     | 4.10                  |
| 110    | 315L       | 985   | 201   | 7.4     | 2.5     | 4.90                  |
| 132    | 315L       | 985   | 240   | 7.5     | 2.7     | 5.60                  |

#### Key

I = Nominal current      Ist/I = Starting current factor      Tst/T = Starting torque factor      J = Motor moment of inertia  
P = Rated output power      n = Motor speed      T = Rated output torque

#### Recalculation Factors Fv

Recalculation factors for current at rated voltages other than 400V, 50 Hz.

| 50 Hz | Fv   |
|-------|------|
| 220V  | 1.82 |
| 230V  | 1.74 |
| 415V  | 0,96 |
| 500V  | 0,80 |
| 660V  | 0,61 |
| 690V  | 0,58 |

#### 60 Hz Operation

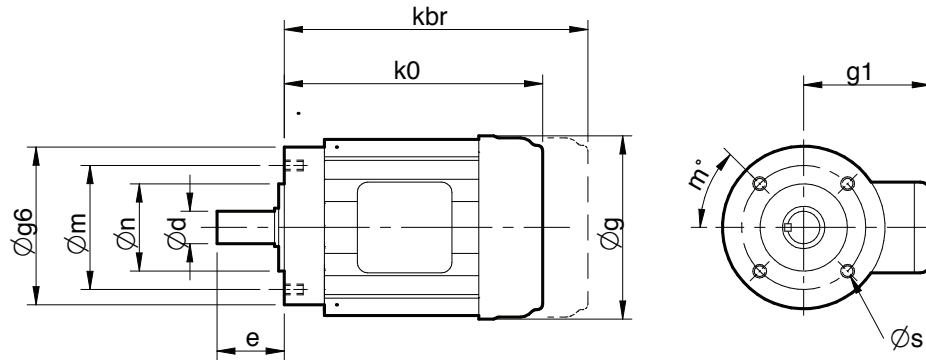
Motors wound for a certain voltage at 50 Hz can be operated at 60 Hz, without any modifications, subject to the following changes in their data

| 60 Hz | P (kW) | n (rpm) | I (A) | Ist (I) | T (Nm) | Tst (T) |
|-------|--------|---------|-------|---------|--------|---------|
| 380V  | 100%   | 120%    | 100%  | 80%     | 83%    | 66%     |
| 400V  | 100%   | 120%    | 98%   | 83%     | 83%    | 70%     |
| 415V  | 105%   | 120%    | 100%  | 8%8     | 86%    | 78%     |
| 440V  | 110%   | 120%    | 100%  | 95%     | 91%    | 85%     |
| 460V  | 115%   | 120%    | 100%  | 100%    | 96%    | 95%     |
| 480V  | 120%   | 120%    | 100%  | 105%    | 100%   | 100%    |

# F SERIES

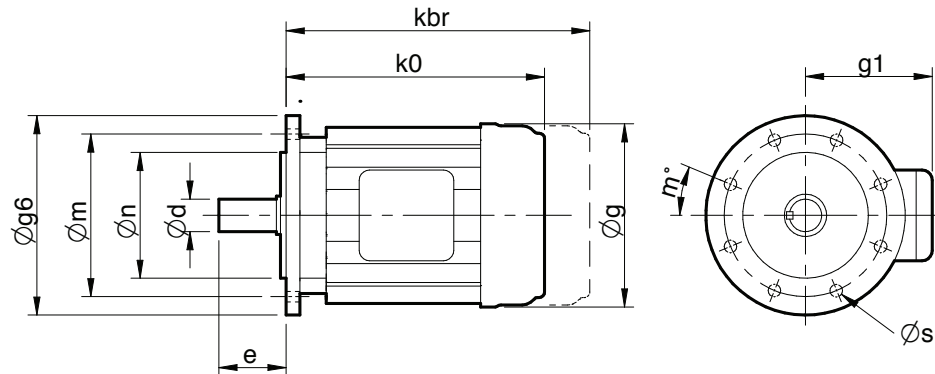
## MOTOR DETAILS

B14 'C' face



| Size | Øg6 | Øm  | Øn  | Ød | e  | ko  | kbr | Øg  | g1  | m      | Øs    |
|------|-----|-----|-----|----|----|-----|-----|-----|-----|--------|-------|
| 71   | 105 | 85  | 70  | 14 | 30 | 220 | 270 | 140 | 105 | 45 deg | 4xM6  |
| 80   | 120 | 100 | 80  | 19 | 40 | 240 | 290 | 158 | 122 | 45 deg | 4xM6  |
| 90S  | 140 | 115 | 95  | 24 | 50 | 260 | 310 | 180 | 129 | 45 deg | 4xM8  |
| 90L  | 140 | 115 | 95  | 24 | 50 | 280 | 330 | 180 | 129 | 45 deg | 4xM8  |
| 100L | 160 | 130 | 110 | 28 | 60 | 310 | 375 | 198 | 152 | 45 deg | 4xM8  |
| 112M | 160 | 130 | 110 | 28 | 60 | 330 | 405 | 222 | 165 | 45 deg | 4xM8  |
| 132S | 200 | 165 | 130 | 38 | 80 | 380 | 475 | 260 | 185 | 45 deg | 4xM10 |
| 132M | 200 | 165 | 130 | 38 | 80 | 420 | 505 | 260 | 185 | 45 deg | 4xM10 |

B5 'D' face



| Size | Øg6 | Øm  | Øn  | Ød | e   | ko   | kbr | Øg  | g1  | m        | Øs         |
|------|-----|-----|-----|----|-----|------|-----|-----|-----|----------|------------|
| 63   | 140 | 115 | 95  | 11 | 23  | 195  | 260 | 125 | 100 | 45 deg   | 4x9 (M8)   |
| 71   | 160 | 130 | 110 | 14 | 30  | 220  | 270 | 140 | 105 | 45 deg   | 4x9 (M8)   |
| 80   | 200 | 165 | 130 | 19 | 40  | 240  | 290 | 158 | 122 | 45 deg   | 4x11 (M10) |
| 90S  | 200 | 165 | 130 | 24 | 50  | 260  | 310 | 180 | 129 | 45 deg   | 4x11 (M10) |
| 90L  | 200 | 165 | 130 | 24 | 50  | 280  | 330 | 180 | 129 | 45 deg   | 4x11 (M10) |
| 100L | 250 | 215 | 180 | 28 | 60  | 310  | 375 | 198 | 152 | 45 deg   | 4x14 (M12) |
| 112M | 250 | 215 | 180 | 28 | 60  | 330  | 405 | 222 | 165 | 45 deg   | 4x14 (M12) |
| 132S | 300 | 265 | 230 | 38 | 80  | 380  | 475 | 260 | 185 | 45 deg   | 4x14 (M12) |
| 132M | 300 | 265 | 230 | 38 | 80  | 420  | 505 | 260 | 185 | 45 deg   | 4x14 (M12) |
| 160M | 350 | 300 | 250 | 42 | 110 | 480  | 565 | 320 | 264 | 45 deg   | 4x18 (M16) |
| 160L | 350 | 300 | 250 | 42 | 110 | 530  | 615 | 320 | 264 | 45 deg   | 4x18 (M16) |
| 180M | 350 | 300 | 250 | 48 | 110 | 560  | -   | 360 | 279 | 45 deg   | 4x18 (M16) |
| 180L | 350 | 300 | 250 | 48 | 110 | 595  | -   | 360 | 279 | 45 deg   | 4x18 (M16) |
| 200L | 400 | 350 | 300 | 55 | 110 | 660  | -   | 400 | 317 | 45 deg   | 4x18 (M16) |
| 225S | 450 | 400 | 350 | 60 | 140 | 680  | -   | 450 | 385 | 22.5 deg | 8x18 (M16) |
| 225M | 450 | 400 | 350 | 60 | 140 | 715  | -   | 450 | 385 | 22.5 deg | 8x18 (M16) |
| 250M | 550 | 500 | 450 | 65 | 140 | 770  | -   | 500 | 405 | 22.5 deg | 8x18 (M16) |
| 280S | 550 | 500 | 450 | 75 | 140 | 850  | -   | 560 | 480 | 22.5 deg | 8x18 (M16) |
| 280M | 550 | 500 | 450 | 75 | 140 | 930  | -   | 560 | 480 | 22.5 deg | 8x18 (M16) |
| 315S | 660 | 600 | 550 | 80 | 170 | 1100 | -   | 630 | 530 | 22.5 deg | 8x22 (M20) |
| 315M | 660 | 600 | 550 | 80 | 170 | 1260 | -   | 630 | 530 | 22.5 deg | 8x22 (M20) |
| 315L | 660 | 600 | 550 | 80 | 170 | 1400 | -   | 630 | 530 | 22.5 deg | 8x22 (M20) |

\* Motor lengths for own brand standard motors. These lengths may vary if alternative motor is fitted.

# F SERIES

## ADDITIONAL MOTOR FEATURES

### Additional Motor Features - column 19 entry

| Column 19 Entry | Brake Motor | Hand Release<br>on Brake | Forced Ventilation/<br>Constant Blower<br>(TECB) | Thermistor | Special |
|-----------------|-------------|--------------------------|--------------------------------------------------|------------|---------|
| -               |             |                          |                                                  |            |         |
| A               | •           |                          |                                                  |            |         |
| B               | •           | •                        |                                                  |            |         |
| C               |             |                          | •                                                |            |         |
| D               | •           |                          | •                                                |            |         |
| E               | •           | •                        | •                                                |            |         |
| F               |             |                          |                                                  | •          |         |
| G               | •           |                          |                                                  | •          |         |
| H               | •           | •                        |                                                  | •          |         |
| K               |             |                          | •                                                | •          |         |
| L               | •           |                          | •                                                | •          |         |
| M               | •           | •                        | •                                                | •          |         |
| S               |             |                          |                                                  |            | •       |

Please refer to Application Engineering for details of the following additional motor features

- PGF encoder flange
- Wash down
- Customised brake torque
- Separate brake supply
- Aluminium fan
- Anti Condensation heater
- Bi-metal temperature detectors, Thermostat
- EExEIIT3
- Ex nA II T3
- IP56
- IP65
- Metal fan cover
- Rain cowl
- Separate terminal box

# F SERIES

## ADDITIONAL GEARBOX FEATURES

### Additional Gearbox Features - column 20 entry

| Column 20 Entry | Double Oil Seals<br>on Output Shaft | Oil Level Glass<br>F06- F10 | * Motorised Backstop |              | Special |
|-----------------|-------------------------------------|-----------------------------|----------------------|--------------|---------|
|                 |                                     |                             | CW Rotation          | CCW Rotation |         |
| -               |                                     |                             |                      |              |         |
| A               | •                                   |                             |                      |              |         |
| B               |                                     | •                           |                      |              |         |
| C               | •                                   | •                           |                      |              |         |
| D               |                                     |                             | •                    |              |         |
| E               | •                                   |                             | •                    |              |         |
| F               |                                     | •                           | •                    |              |         |
| G               | •                                   | •                           | •                    |              |         |
| H               |                                     |                             |                      | •            |         |
| I               | •                                   |                             |                      | •            |         |
| J               |                                     | •                           |                      | •            |         |
| K               | •                                   | •                           |                      | •            |         |
| L               |                                     |                             |                      |              | •       |

Please refer to Application Engineering for details of the special additional gearbox features for example :-

- Prime paint only
- Wash down
- BISSC compatible
- Special oil (food compatible, bio-degradable, different viscosities etc)

\* IEC Frame Sizes 100-200, NEMA frame sizes 182TC - 326TC

# F SERIES

## EXACT RATIOS

### Exact Ratios - Double Reduction

| Column Entry |   |   | F0223 | F0323 | F0423 | F0523 | F0623 | F0723 | F0823 | F0923 | F1023 |
|--------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 6            | 7 | 8 |       |       |       |       |       |       |       |       |       |
| 5.0          |   |   | 5.90  | -     | -     | -     | -     | -     | -     | -     | -     |
| 6.3          |   |   | 7.97  | 6.65  | 6.32  | 6.31  | 6.27  | 6.42  | 6.24  | 6.57  | 6.43  |
| 9.0          |   |   | 9.07  | 8.98  | 8.86  | 8.87  | 8.82  | 8.89  | 8.85  | 9.04  | 8.99  |
| 10           |   |   | 10.27 | 10.21 | 9.77  | 9.95  | 9.89  | 9.99  | 9.83  | 10.13 | 9.77  |
| 12           |   |   | 13.14 | 11.57 | 11.09 | 11.16 | 11.10 | 10.98 | 10.93 | 11.37 | 11.10 |
| 14           |   |   | 14.16 | 14.80 | 14.09 | 14.18 | 14.09 | 14.35 | 14.14 | 14.66 | 14.46 |
| 16           |   |   | 17.88 | 15.95 | 16.01 | 16.07 | 15.98 | 16.31 | 15.87 | 16.37 | 15.61 |
| 20           |   |   | 20.27 | 20.14 | 19.64 | 19.17 | 19.05 | 19.81 | 19.46 | 20.45 | 20.05 |
| 22           |   |   | 23.16 | 22.83 | 21.79 | 22.07 | 21.94 | 21.79 | 21.93 | 22.70 | 22.76 |
| 25           |   |   | 25.77 | 26.09 | 24.75 | 25.67 | 25.52 | 25.04 | 25.53 | 25.88 | 25.77 |
| 28           |   |   | 28.41 | 29.02 | 28.12 | 28.72 | 28.55 | 28.39 | 28.32 | 29.11 | 29.07 |
| 32           |   |   | 31.26 | 31.99 | 30.97 | 30.61 | 30.43 | 31.32 | 30.99 | 32.96 | 32.30 |
| 36           |   |   | 36.63 | 35.21 | 35.62 | 36.28 | 36.06 | 35.86 | 35.06 | 36.69 | 35.32 |
| 40           |   |   | 43.94 | 41.25 | 38.72 | 38.74 | 38.50 | 40.55 | 39.58 | 40.76 | 39.25 |
| 50           |   |   | 51.22 | 49.49 | 46.49 | 48.07 | 47.78 | 47.01 | 47.98 | 49.85 | 46.38 |
| 56           |   |   | 56.91 | 57.69 | 55.79 | 56.68 | 56.34 | 56.07 | 55.95 | 57.58 | 55.97 |
| 63           |   |   | 68.54 | 64.10 | 62.86 | 62.06 | 61.69 | 61.40 | 61.46 | 63.56 | 64.49 |
| 71           |   |   | 78.56 | 77.19 | 73.07 | 76.06 | 75.60 | 73.68 | 75.32 | 77.26 | 74.83 |
| 90           |   |   | 89.28 | 88.47 | 82.94 | 84.78 | 84.26 | 84.78 | 82.25 | 87.44 | 87.21 |
| 100          |   |   | -     | 100.5 | 94.29 | 95.08 | 94.50 | 94.20 | 94.71 | 98.32 | 93.70 |

### Exact Ratios - Triple Reduction

| Column Entry |   |   | F0233 | F0333 | F0433 | F0533 | F0633 | F0733 | F0833 | F0933 | F1033 |
|--------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 6            | 7 | 8 |       |       |       |       |       |       |       |       |       |
| 63           |   |   | 63.9  | -     | -     | -     | -     | -     | -     | -     | -     |
| 71           |   |   | 72.4  | 71.9  | 69.7  | -     | -     | -     | -     | -     | -     |
| 80           |   |   | 82.7  | 81.5  | 79.0  | -     | -     | 78.99 | -     | -     | -     |
| 90           |   |   | 92.0  | 93.2  | 90.3  | -     | -     | 91.87 | -     | -     | -     |
| 100          |   |   | 101.5 | 103.6 | 100.4 | 102.8 | 102.2 | 102.8 | 102.4 | 105.3 | 104.9 |
| 112          |   |   | 111.6 | 114.3 | 110.7 | 113.2 | 112.5 | 109.6 | 112.1 | 115.2 | 118.7 |
| 125          |   |   | 130.8 | 125.7 | 121.9 | 130.2 | 129.4 | 129.8 | 126.8 | 130.3 | 132.1 |
| 160          |   |   | 156.9 | 147.3 | 142.8 | 141.6 | 140.7 | 138.6 | 143.1 | 147.1 | 146.8 |
| 180          |   |   | 182.9 | 176.7 | 171.3 | 169.9 | 168.9 | 172.0 | 173.5 | 178.3 | 179.6 |
| 200          |   |   | 203.3 | 206.0 | 199.7 | 203.9 | 202.7 | 202.9 | 202.3 | 208.0 | 207.4 |
| 225          |   |   | 244.8 | 228.9 | 221.8 | 229.8 | 228.4 | 222.1 | 222.2 | 228.4 | 228.9 |
| 280          |   |   | 280.6 | 275.7 | 267.1 | 267.1 | 265.5 | 272.2 | 272.3 | 279.9 | 278.3 |
| 320          |   |   | 318.8 | 316.0 | 306.2 | 303.2 | 301.3 | 303.4 | 297.4 | 305.7 | 314.9 |
| 360          |   |   | -     | 359.1 | 348.0 | 344.7 | 342.6 | 340.3 | 342.4 | 352.0 | 354.1 |

### Exact Ratios - Quadruple Reduction

| Column Entry |   |   | F0343 | F0443 | F0543 | F0643 | F0743 | F0843 | F0943 | F1043 |
|--------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 6            | 7 | 8 |       |       |       |       |       |       |       |       |
| 400          |   |   | 399.9 | 398.8 | 409.9 | 407.4 | 399.8 | 388.5 | 413.2 | 411.3 |
| 450          |   |   | 453.4 | 455.7 | 451.4 | 448.6 | 453.3 | 439.5 | 459.9 | 457.9 |
| 500          |   |   | 518.1 | 506.9 | 505.0 | 502.0 | 499.2 | 496.2 | 511.0 | 508.7 |
| 560          |   |   | 576.3 | 558.8 | 564.5 | 561.0 | 550.5 | 577.1 | 573.0 | 565.6 |
| 630          |   |   | 635.4 | 615.0 | 631.5 | 627.7 | 624.3 | 601.5 | 637.9 | 622.2 |
| 710          |   |   | 699.3 | 707.4 | 699.2 | 729.3 | 713.0 | 701.4 | 708.7 | 715.0 |
| 800          |   |   | 819.3 | 828.8 | 808.1 | 803.2 | 793.1 | 815.8 | 807.1 | 810.7 |
| 900          |   |   | 893.1 | 901.1 | 909.8 | 904.3 | 899.3 | 912.7 | 896.7 | 894.2 |
| 10C          |   |   | 982.9 | 994.4 | 1025  | 1019  | 992.0 | 1003  | 1002  | 1024  |
| 11C          |   |   | 1146  | 1159  | 1149  | 1086  | 1118  | 1098  | 1113  | 1140  |
| 12C          |   |   | 1273  | 1260  | 1270  | 1262  | 1280  | 1231  | 1267  | 1256  |
| 14C          |   |   | 1382  | 1400  | 1442  | 1433  | 1447  | 1352  | 1398  | 1386  |
| 16C          |   |   | 1610  | 1686  | 1607  | 1629  | 1678  | 1657  | 1605  | 1601  |
| 18C          |   |   | 1796  | 1778  | 1824  | 1813  | 1776  | 1801  | 1761  | 1794  |
| 20C          |   |   | 2086  | 1933  | 1994  | 1982  | 2001  | 1979  | 2030  | 2025  |
| 22C          |   |   | 2155  | 2196  | 2264  | 2250  | 2214  | 2167  | 2241  | 2236  |
| 25C          |   |   | 2512  | 2429  | 2573  | 2558  | 2517  | 2425  | 2487  | 2481  |
| 28C          |   |   | 2807  | 2784  | 2923  | 3016  | 2892  | 2655  | 2772  | 2796  |
| 32C          |   |   | 3272  | 3164  | 3323  | 3303  | 3002  | 3254  | 3109  | 3261  |
| 36C          |   |   | 3636  | 3565  | 3582  | 3560  | 3470  | 3627  | 3720  | 3752  |
| 40C          |   |   | -     | 4145  | 3992  | 4048  | 3945  | 4067  | 4172  | 4168  |
| 45C          |   |   | -     | 4704  | 4539  | -     | 4539  | 4442  | 4722  | 4718  |
| 50C          |   |   | -     | 5348  | -     | -     | 5043  | 5114  | 5310  | 5305  |

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.12 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 230.4           | 5.903   | 4.85             | 12.99             | 2978             | F0223 5.0 _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 170.6           | 7.974   | 6.55             | 11.19             | 3178             | F0223 6.3 _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 150.0           | 9.069   | 7.45             | 10.45             | 3256             | F0223 9.0 _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 132.4           | 10.27   | 8.44             | 9.77              | 3329             | F0223 10. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 103.5           | 13.14   | 10.8             | 8.44              | 3489             | F0223 12. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 96.04           | 14.16   | 11.6             | 8.04              | 3532             | F0223 14. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 76.07           | 17.88   | 14.7             | 6.88              | 3673             | F0223 16. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 67.10           | 20.27   | 16.7             | 6.37              | 3764             | F0223 20. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 58.72           | 23.16   | 19.0             | 5.78              | 3843             | F0223 22. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 52.78           | 25.77   | 21.2             | 5.39              | 3850             | F0223 25. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 47.88           | 28.41   | 23.3             | 5.01              | 3850             | F0223 28. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 43.50           | 31.26   | 25.7             | 4.71              | 3850             | F0223 32. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 37.13           | 36.63   | 30.1             | 4.32              | 3850             | F0223 36. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 30.95           | 43.94   | 36.1             | 3.60              | 3850             | F0223 40. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 26.55           | 51.22   | 42.1             | 3.09              | 3850             | F0223 50. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 23.90           | 56.91   | 46.8             | 2.78              | 3850             | F0223 56. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 19.84           | 68.54   | 56.3             | 2.31              | 3850             | F0223 63. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 17.31           | 78.56   | 64.5             | 1.95              | 3850             | F0223 71. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 15.23           | 89.28   | 73.3             | 1.54              | 3850             | F0223 90. _ M _ _ _ _ 12A _ _                                                            | 20                              | 63            |
| 16.44           | 82.72   | 67.3             | 1.93              | 3850             | F0233 80. _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 14.78           | 92.02   | 74.8             | 1.74              | 3850             | F0233 90. _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 13.41           | 101.45  | 82.5             | 1.58              | 3850             | F0233 100 _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 12.18           | 111.65  | 90.8             | 1.43              | 3850             | F0233 112 _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 10.40           | 130.81  | 106              | 1.25              | 3850             | F0233 125 _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 8.67            | 156.93  | 128              | 1.10              | 3850             | F0233 160 _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 7.43            | 182.93  | 149              | 0.97              | 3850             | F0233 180 _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 6.69            | 203.26  | 165              | 0.89              | 3850             | F0233 200 _ M _ _ _ _ 12A _ _                                                            | 21                              | 63            |
| 23.58           | 57.69   | 47.4             | 4.00              | 5000             | F0323 56. _ M _ _ _ _ 12A _ _                                                            | 22                              | 63            |
| 21.22           | 64.10   | 52.7             | 3.39              | 5000             | F0323 63. _ M _ _ _ _ 12A _ _                                                            | 22                              | 63            |
| 17.62           | 77.19   | 63.4             | 2.35              | 5000             | F0323 71. _ M _ _ _ _ 12A _ _                                                            | 22                              | 63            |
| 15.37           | 88.47   | 72.7             | 1.76              | 5000             | F0323 90. _ M _ _ _ _ 12A _ _                                                            | 22                              | 63            |
| 13.53           | 100.55  | 82.6             | 1.54              | 5000             | F0323 100 _ M _ _ _ _ 12A _ _                                                            | 22                              | 63            |
| 16.68           | 81.53   | 66.3             | 3.77              | 5000             | F0333 80. _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 14.60           | 93.16   | 75.8             | 3.30              | 5000             | F0333 90. _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 13.12           | 103.64  | 84.3             | 2.97              | 5000             | F0333 100 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 11.90           | 114.26  | 92.9             | 2.69              | 5000             | F0333 112 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 10.82           | 125.74  | 102              | 2.45              | 5000             | F0333 125 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 9.23            | 147.32  | 120              | 2.09              | 5000             | F0333 160 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 7.69            | 176.75  | 144              | 1.74              | 5000             | F0333 180 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 6.60            | 206.03  | 168              | 1.49              | 5000             | F0333 200 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 5.94            | 228.92  | 186              | 1.34              | 5000             | F0333 225 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 4.93            | 275.67  | 224              | 1.12              | 5000             | F0333 280 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 4.30            | 315.97  | 257              | 0.97              | 5000             | F0333 320 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 3.79            | 359.10  | 292              | 0.86              | 5000             | F0333 360 _ M _ _ _ _ 12A _ _                                                            | 23                              | 63            |
| 9.53            | 142.76  | 116              | 3.62              | 6400             | F0433 160 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 7.94            | 171.28  | 139              | 3.02              | 6400             | F0433 180 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 6.81            | 199.65  | 162              | 2.59              | 6400             | F0433 200 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 6.13            | 221.84  | 180              | 2.33              | 6400             | F0433 225 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 5.09            | 267.14  | 217              | 1.93              | 6400             | F0433 280 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 4.44            | 306.20  | 249              | 1.69              | 6400             | F0433 320 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 3.91            | 347.99  | 283              | 1.48              | 6400             | F0433 360 _ M _ _ _ _ 12A _ _                                                            | 29                              | 63            |
| 3.41            | 398.75  | 319              | 1.32              | 6400             | F0443 400 _ M _ _ _ _ 12A _ _                                                            | 37                              | 63            |
| 2.98            | 455.67  | 365              | 1.15              | 6400             | F0443 450 _ M _ _ _ _ 12A _ _                                                            | 37                              | 63            |
| 2.68            | 506.89  | 406              | 1.04              | 6400             | F0443 500 _ M _ _ _ _ 12A _ _                                                            | 37                              | 63            |
| 2.43            | 558.85  | 447              | 0.94              | 6400             | F0443 560 _ M _ _ _ _ 12A _ _                                                            | 37                              | 63            |
| 5.92            | 229.77  | 187              | 3.75              | 9000             | F0533 225 _ M _ _ _ _ 12A _ _                                                            | 39                              | 63            |
| 5.09            | 267.11  | 217              | 3.22              | 9000             | F0533 280 _ M _ _ _ _ 12A _ _                                                            | 39                              | 63            |
| 4.49            | 303.17  | 247              | 2.84              | 9000             | F0533 320 _ M _ _ _ _ 12A _ _                                                            | 39                              | 63            |
| 3.95            | 344.65  | 280              | 2.50              | 9000             | F0533 360 _ M _ _ _ _ 12A _ _                                                            | 39                              | 63            |
| 3.32            | 409.90  | 328              | 2.13              | 9000             | F0543 400 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 3.01            | 451.39  | 361              | 1.94              | 9000             | F0543 450 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 2.69            | 505.02  | 404              | 1.73              | 9000             | F0543 500 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 2.41            | 564.47  | 452              | 1.55              | 9000             | F0543 560 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 2.15            | 631.55  | 506              | 1.38              | 9000             | F0543 630 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 1.95            | 699.15  | 560              | 1.25              | 9000             | F0543 710 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 1.68            | 808.08  | 647              | 1.08              | 9000             | F0543 800 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 1.49            | 909.80  | 728              | 0.96              | 9000             | F0543 900 _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |
| 1.33            | 1025.12 | 821              | 0.85              | 9000             | F0543 10C _ M _ _ _ _ 12A _ _                                                            | 49                              | 63            |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.12 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 4.51            | 301.33  | 245              | 3.67              | 14500            | F0633 320 M _ _ _ _ .12A - -                                                                                                                                                               | 52                              | 63            |
| 3.97            | 342.56  | 279              | 3.23              | 14500            | F0633 360 M _ _ _ _ .12A - -                                                                                                                                                               | 52                              | 63            |
| 3.34            | 407.41  | 326              | 2.76              | 14500            | F0643 400 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 3.03            | 448.65  | 359              | 2.51              | 14500            | F0643 450 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 2.71            | 501.96  | 402              | 2.24              | 14500            | F0643 500 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 2.42            | 561.05  | 449              | 2.00              | 14500            | F0643 560 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 2.17            | 627.72  | 502              | 1.79              | 14500            | F0643 630 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 1.86            | 729.32  | 584              | 1.54              | 14500            | F0643 710 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 1.69            | 803.17  | 643              | 1.40              | 14500            | F0643 800 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 1.50            | 904.28  | 724              | 1.24              | 14500            | F0643 900 M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 1.33            | 1018.90 | 816              | 1.10              | 14500            | F0643 10C M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 1.25            | 1085.98 | 869              | 1.04              | 14500            | F0643 11C M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 1.08            | 1262.45 | 1011             | 0.89              | 14004            | F0643 12C M _ _ _ _ .12A - -                                                                                                                                                               | 63                              | 63            |
| 2.47            | 550.54  | 441              | 3.86              | 16000            | F0743 560 M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 2.18            | 624.29  | 500              | 3.40              | 16000            | F0743 630 M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.91            | 712.98  | 571              | 2.98              | 16000            | F0743 710 M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.71            | 793.09  | 635              | 2.68              | 16000            | F0743 800 M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.51            | 899.34  | 720              | 2.36              | 16000            | F0743 900 M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.37            | 991.96  | 794              | 2.14              | 16000            | F0743 10C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.22            | 1117.71 | 895              | 1.90              | 16000            | F0743 11C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.06            | 1280.01 | 1025             | 1.66              | 16000            | F0743 12C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 0.94            | 1447.23 | 1159             | 1.47              | 16000            | F0743 14C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 0.81            | 1677.90 | 1343             | 1.27              | 16000            | F0743 16C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 0.77            | 1776.16 | 1422             | 1.20              | 16000            | F0743 18C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 0.68            | 2001.30 | 1602             | 1.06              | 16000            | F0743 20C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 0.61            | 2213.90 | 1772             | 0.96              | 16000            | F0743 22C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 0.54            | 2516.86 | 2015             | 0.84              | 16000            | F0743 25C M _ _ _ _ .12A - -                                                                                                                                                               | 88                              | 63            |
| 1.36            | 1002.59 | 803              | 3.80              | 18000            | F0843 10C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 1.24            | 1098.17 | 879              | 3.47              | 18000            | F0843 11C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 1.10            | 1230.95 | 985              | 3.10              | 18000            | F0843 12C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 1.01            | 1352.15 | 1082             | 2.82              | 18000            | F0843 14C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.82            | 1657.05 | 1326             | 2.30              | 18000            | F0843 16C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.76            | 1801.24 | 1442             | 2.12              | 18000            | F0843 18C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.69            | 1978.59 | 1584             | 1.93              | 18000            | F0843 20C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.63            | 2166.52 | 1734             | 1.76              | 18000            | F0843 22C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.56            | 2424.74 | 1941             | 1.57              | 18000            | F0843 25C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.51            | 2655.05 | 2125             | 1.44              | 18000            | F0843 28C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.42            | 3253.85 | 2605             | 1.17              | 18000            | F0843 32C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.37            | 3626.68 | 2903             | 1.05              | 18000            | F0843 36C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.33            | 4067.31 | 3256             | 0.94              | 18000            | F0843 40C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.31            | 4441.50 | 3555             | 0.82              | 18000            | F0843 45C M _ _ _ _ .12A - -                                                                                                                                                               | 135                             | 63            |
| 0.97            | 1398.38 | 1119             | 4.02              | 35000            | F0943 14C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.85            | 1604.88 | 1285             | 3.50              | 35000            | F0943 16C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.77            | 1760.86 | 1410             | 3.19              | 35000            | F0943 18C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.67            | 2029.56 | 1625             | 2.77              | 35000            | F0943 20C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.61            | 2240.58 | 1794             | 2.51              | 35000            | F0943 22C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.55            | 2487.29 | 1991             | 2.26              | 35000            | F0943 25C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.49            | 2772.29 | 2219             | 2.03              | 35000            | F0943 28C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.44            | 3109.11 | 2489             | 1.81              | 35000            | F0943 32C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.37            | 3719.83 | 2978             | 1.51              | 35000            | F0943 36C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.33            | 4171.78 | 3340             | 1.35              | 35000            | F0943 40C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.29            | 4721.79 | 3780             | 1.19              | 35000            | F0943 45C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |
| 0.26            | 5309.53 | 4250             | 1.06              | 35000            | F0943 50C M _ _ _ _ .12A - -                                                                                                                                                               | 200                             | 63            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.12 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 152.5           | 5.903  | 7.3              | 9.28              | 3122             | F0223 5.0 _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 112.9           | 7.974  | 9.9              | 7.98              | 2872             | F0223 6.3 _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 99.23           | 9.069  | 11.3             | 7.46              | 2942             | F0223 9.0 _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 87.59           | 10.27  | 12.8             | 6.90              | 2999             | F0223 10. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 68.49           | 13.14  | 16.3             | 5.95              | 3141             | F0223 12. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 63.55           | 14.16  | 17.6             | 5.69              | 3184             | F0223 14. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 50.34           | 17.88  | 22.2             | 4.96              | 3330             | F0223 16. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 44.40           | 20.27  | 25.2             | 4.61              | 3416             | F0223 20. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 38.86           | 23.16  | 28.8             | 4.28              | 3511             | F0223 22. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 34.93           | 25.77  | 32.0             | 4.03              | 3586             | F0223 25. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 31.68           | 28.41  | 35.3             | 3.69              | 3850             | F0223 28. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 28.79           | 31.26  | 38.8             | 3.35              | 3850             | F0223 32. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 24.57           | 36.63  | 45.5             | 2.86              | 3850             | F0223 36. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 20.48           | 43.94  | 54.6             | 2.38              | 3850             | F0223 40. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 17.57           | 51.22  | 63.6             | 2.04              | 3850             | F0223 50. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 15.81           | 56.91  | 70.7             | 1.84              | 3850             | F0223 56. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 13.13           | 68.54  | 85.1             | 1.53              | 3850             | F0223 63. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 11.46           | 78.56  | 97.5             | 1.29              | 3850             | F0223 71. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 10.08           | 89.28  | 111              | 1.02              | 3850             | F0223 90. _ M _ _ _ _ 12C _ _                                                            | 20                              | 63            |
| 10.88           | 82.72  | 102              | 1.33              | 3850             | F0233 80. _ M _ _ _ _ 12C _ _                                                            | 21                              | 63            |
| 9.78            | 92.02  | 113              | 1.21              | 3850             | F0233 90. _ M _ _ _ _ 12C _ _                                                            | 21                              | 63            |
| 8.87            | 101.45 | 125              | 1.12              | 3850             | F0233 100 _ M _ _ _ _ 12C _ _                                                            | 21                              | 63            |
| 8.06            | 111.65 | 137              | 1.04              | 3850             | F0233 112 _ M _ _ _ _ 12C _ _                                                            | 21                              | 63            |
| 6.88            | 130.81 | 161              | 0.91              | 3850             | F0233 125 _ M _ _ _ _ 12C _ _                                                            | 21                              | 63            |
| 15.60           | 57.69  | 72               | 2.78              | 5000             | F0323 56. _ M _ _ _ _ 12C _ _                                                            | 22                              | 63            |
| 14.04           | 64.10  | 80               | 2.35              | 5000             | F0323 63. _ M _ _ _ _ 12C _ _                                                            | 22                              | 63            |
| 11.66           | 77.19  | 96               | 1.55              | 5000             | F0323 71. _ M _ _ _ _ 12C _ _                                                            | 22                              | 63            |
| 10.17           | 88.47  | 110              | 1.17              | 5000             | F0323 90. _ M _ _ _ _ 12C _ _                                                            | 22                              | 63            |
| 8.95            | 100.55 | 125              | 1.01              | 5000             | F0323 100 _ M _ _ _ _ 12C _ _                                                            | 22                              | 63            |
| 12.51           | 71.91  | 88               | 2.83              | 5000             | F0333 71. _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 11.04           | 81.53  | 100              | 2.50              | 5000             | F0333 80. _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 9.66            | 93.16  | 114              | 2.18              | 5000             | F0333 90. _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 8.68            | 103.64 | 127              | 1.96              | 5000             | F0333 100 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 7.88            | 114.26 | 140              | 1.78              | 5000             | F0333 112 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 7.16            | 125.74 | 155              | 1.62              | 5000             | F0333 125 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 6.11            | 147.32 | 181              | 1.38              | 5000             | F0333 160 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 5.09            | 176.75 | 217              | 1.15              | 5000             | F0333 180 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 4.37            | 206.03 | 253              | 0.99              | 5000             | F0333 200 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 3.93            | 228.92 | 281              | 0.89              | 5000             | F0333 225 _ M _ _ _ _ 12C _ _                                                            | 23                              | 63            |
| 12.32           | 73.07  | 91               | 3.65              | 6400             | F0423 71. _ M _ _ _ _ 12C _ _                                                            | 27                              | 63            |
| 10.85           | 82.94  | 103              | 2.89              | 6400             | F0423 90. _ M _ _ _ _ 12C _ _                                                            | 27                              | 63            |
| 9.55            | 94.29  | 117              | 2.27              | 6400             | F0423 100 _ M _ _ _ _ 12C _ _                                                            | 27                              | 63            |
| 9.97            | 90.28  | 111              | 3.79              | 6400             | F0433 90. _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 8.96            | 100.43 | 123              | 3.40              | 6400             | F0433 100 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 8.13            | 110.72 | 136              | 3.09              | 6400             | F0433 112 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 7.39            | 121.85 | 150              | 2.81              | 6400             | F0433 125 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 6.30            | 142.76 | 175              | 2.39              | 6400             | F0433 160 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 5.25            | 171.28 | 210              | 2.00              | 6400             | F0433 180 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 4.51            | 199.65 | 245              | 1.71              | 6400             | F0433 200 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 4.06            | 221.84 | 273              | 1.54              | 6400             | F0433 225 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 3.37            | 267.14 | 328              | 1.28              | 6400             | F0433 280 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 2.94            | 306.20 | 376              | 1.12              | 6400             | F0433 320 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 2.59            | 347.99 | 428              | 0.98              | 6400             | F0433 360 _ M _ _ _ _ 12C _ _                                                            | 29                              | 63            |
| 6.36            | 141.55 | 174              | 4.00              | 9000             | F0533 160 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 5.30            | 169.93 | 209              | 3.35              | 9000             | F0533 180 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 4.41            | 203.92 | 251              | 2.79              | 9000             | F0533 200 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 3.92            | 229.77 | 282              | 2.48              | 9000             | F0533 225 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 3.37            | 267.11 | 328              | 2.13              | 9000             | F0533 280 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 2.97            | 303.17 | 373              | 1.88              | 9000             | F0533 320 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 2.61            | 344.65 | 423              | 1.65              | 9000             | F0533 360 _ M _ _ _ _ 12C _ _                                                            | 39                              | 63            |
| 2.20            | 409.90 | 496              | 1.41              | 9000             | F0543 400 _ M _ _ _ _ 12C _ _                                                            | 49                              | 63            |
| 1.99            | 451.39 | 546              | 1.28              | 9000             | F0543 450 _ M _ _ _ _ 12C _ _                                                            | 49                              | 63            |
| 1.78            | 505.02 | 611              | 1.15              | 9000             | F0543 500 _ M _ _ _ _ 12C _ _                                                            | 49                              | 63            |
| 1.59            | 564.47 | 683              | 1.03              | 9000             | F0543 560 _ M _ _ _ _ 12C _ _                                                            | 49                              | 63            |
| 1.43            | 631.55 | 764              | 0.92              | 9000             | F0543 630 _ M _ _ _ _ 12C _ _                                                            | 49                              | 63            |
| 1.29            | 699.15 | 846              | 0.83              | 9000             | F0543 710 _ M _ _ _ _ 12C _ _                                                            | 49                              | 63            |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.12 kW**

6 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 4.44            | 202.68  | 249              | 3.61              | 14500            | F0633 200 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 52                              | 63            |
| 3.94            | 228.38  | 281              | 3.21              | 14500            | F0633 225 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 52                              | 63            |
| 3.39            | 265.49  | 326              | 2.76              | 14500            | F0633 280 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 52                              | 63            |
| 2.99            | 301.33  | 370              | 2.43              | 14500            | F0633 320 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 52                              | 63            |
| 2.63            | 342.56  | 421              | 2.14              | 14500            | F0633 360 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 52                              | 63            |
| 2.21            | 407.41  | 493              | 1.83              | 14500            | F0643 400 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 2.01            | 448.65  | 543              | 1.66              | 14500            | F0643 450 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 1.79            | 501.96  | 607              | 1.48              | 14500            | F0643 500 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 1.60            | 561.05  | 679              | 1.33              | 14500            | F0643 560 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 1.43            | 627.72  | 759              | 1.19              | 14500            | F0643 630 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 1.23            | 729.32  | 882              | 1.02              | 14500            | F0643 710 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 1.12            | 803.17  | 972              | 0.93              | 14500            | F0643 800 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 1.00            | 904.28  | 1094             | 0.82              | 14500            | F0643 900 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 63                              | 63            |
| 2.25            | 399.78  | 484              | 3.52              | 16000            | F0743 400 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.99            | 453.34  | 548              | 3.10              | 16000            | F0743 450 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.80            | 499.22  | 604              | 2.82              | 16000            | F0743 500 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.63            | 550.54  | 666              | 2.55              | 16000            | F0743 560 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.44            | 624.29  | 755              | 2.25              | 16000            | F0743 630 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.26            | 712.98  | 862              | 1.97              | 16000            | F0743 710 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.13            | 793.09  | 959              | 1.77              | 16000            | F0743 800 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.00            | 899.34  | 1088             | 1.56              | 16000            | F0743 900 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 0.91            | 991.96  | 1200             | 1.42              | 16000            | F0743 10C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 0.81            | 1117.71 | 1352             | 1.26              | 16000            | F0743 11C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 0.70            | 1280.01 | 1548             | 1.10              | 16000            | F0743 12C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 0.62            | 1447.23 | 1751             | 0.97              | 16000            | F0743 14C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 0.54            | 1677.90 | 2030             | 0.84              | 16000            | F0743 16C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 88                              | 63            |
| 1.28            | 701.40  | 848              | 3.59              | 18000            | F0843 710 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 1.10            | 815.79  | 987              | 3.09              | 18000            | F0843 800 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.99            | 912.72  | 1104             | 2.76              | 18000            | F0843 900 _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.90            | 1002.59 | 1213             | 2.51              | 18000            | F0843 10C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.82            | 1098.17 | 1328             | 2.30              | 18000            | F0843 11C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.73            | 1230.95 | 1489             | 2.05              | 18000            | F0843 12C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.67            | 1352.15 | 1636             | 1.86              | 18000            | F0843 14C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.54            | 1657.05 | 2004             | 1.52              | 18000            | F0843 16C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.50            | 1801.24 | 2179             | 1.40              | 18000            | F0843 18C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.45            | 1978.59 | 2393             | 1.27              | 18000            | F0843 20C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.42            | 2166.52 | 2621             | 1.16              | 18000            | F0843 22C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.37            | 2424.74 | 2933             | 1.04              | 18000            | F0843 25C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.34            | 2655.05 | 3212             | 0.95              | 18000            | F0843 28C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 135                             | 63            |
| 0.90            | 1001.59 | 1212             | 3.56              | 35000            | F0943 10C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.81            | 1112.77 | 1346             | 3.20              | 35000            | F0943 11C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.71            | 1266.68 | 1532             | 2.81              | 35000            | F0943 12C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.64            | 1398.38 | 1692             | 2.55              | 35000            | F0943 14C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.56            | 1604.88 | 1941             | 2.22              | 35000            | F0943 16C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.51            | 1760.86 | 2130             | 2.02              | 35000            | F0943 18C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.44            | 2029.56 | 2455             | 1.76              | 35000            | F0943 20C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.40            | 2240.58 | 2710             | 1.59              | 35000            | F0943 22C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.36            | 2487.29 | 3009             | 1.43              | 35000            | F0943 25C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.32            | 2772.29 | 3354             | 1.29              | 35000            | F0943 28C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.29            | 3109.11 | 3761             | 1.15              | 35000            | F0943 32C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.24            | 3719.83 | 4500             | 0.96              | 34551            | F0943 36C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |
| 0.22            | 4171.78 | 5046             | 0.85              | 33382            | F0943 40C _ M _ _ _ _ .12C _ _                                                                                                                                                             | 208                             | 63            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.18 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 232.1           | 5.903  | 7.2              | 8.72              | 2643             | F0223 5.0 M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 171.8           | 7.974  | 9.8              | 7.51              | 2820             | F0223 6.3 M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 151.1           | 9.069  | 11.1             | 7.02              | 2889             | F0223 9.0 M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 133.3           | 10.27  | 12.6             | 6.56              | 2954             | F0223 10. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 104.3           | 13.14  | 16.1             | 5.67              | 3096             | F0223 12. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 96.74           | 14.16  | 17.3             | 5.40              | 3134             | F0223 14. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 76.63           | 17.88  | 21.9             | 4.62              | 3260             | F0223 16. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 67.59           | 20.27  | 24.8             | 4.27              | 3340             | F0223 20. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 59.15           | 23.16  | 28.3             | 3.88              | 3410             | F0223 22. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 53.17           | 25.77  | 31.5             | 3.62              | 3471             | F0223 25. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 48.23           | 28.41  | 34.8             | 3.37              | 3512             | F0223 28. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 43.82           | 31.26  | 38.2             | 3.16              | 3574             | F0223 32. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 37.40           | 36.63  | 44.8             | 2.90              | 3703             | F0223 36. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 31.18           | 43.94  | 53.8             | 2.42              | 3767             | F0223 40. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 26.75           | 51.22  | 62.7             | 2.07              | 3784             | F0223 50. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 24.07           | 56.91  | 69.6             | 1.87              | 3823             | F0223 56. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 19.99           | 68.54  | 83.8             | 1.55              | 3844             | F0223 63. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 17.44           | 78.56  | 96.1             | 1.31              | 3850             | F0223 71. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 15.35           | 89.28  | 109              | 1.03              | 3767             | F0223 90. M _ _ _ _ .18A _ _                                                             | 20                              | 63            |
| 16.56           | 82.72  | 100              | 1.30              | 3850             | F0233 80. M _ _ _ _ .18A _ _                                                             | 21                              | 63            |
| 14.89           | 92.02  | 111              | 1.17              | 3850             | F0233 90. M _ _ _ _ .18A _ _                                                             | 21                              | 63            |
| 13.50           | 101.45 | 123              | 1.06              | 3850             | F0233 100 M _ _ _ _ .18A _ _                                                             | 21                              | 63            |
| 12.27           | 111.65 | 135              | 0.96              | 3850             | F0233 112 M _ _ _ _ .18A _ _                                                             | 21                              | 63            |
| 10.47           | 130.81 | 158              | 0.84              | 3850             | F0233 125 M _ _ _ _ .18A _ _                                                             | 21                              | 63            |
| 27.68           | 49.49  | 60.5             | 3.59              | 5000             | F0323 50. M _ _ _ _ .18A _ _                                                             | 22                              | 63            |
| 23.75           | 57.69  | 70.6             | 2.69              | 5000             | F0323 56. M _ _ _ _ .18A _ _                                                             | 22                              | 63            |
| 21.37           | 64.10  | 78.4             | 2.28              | 5000             | F0323 63. M _ _ _ _ .18A _ _                                                             | 22                              | 63            |
| 17.75           | 77.19  | 94.4             | 1.58              | 5000             | F0323 71. M _ _ _ _ .18A _ _                                                             | 22                              | 63            |
| 15.49           | 88.47  | 108              | 1.18              | 5000             | F0323 90. M _ _ _ _ .18A _ _                                                             | 22                              | 63            |
| 13.63           | 100.55 | 123              | 1.03              | 5000             | F0323 100 M _ _ _ _ .18A _ _                                                             | 22                              | 63            |
| 19.05           | 71.91  | 87.1             | 2.87              | 5000             | F0333 71. M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 16.80           | 81.53  | 98.7             | 2.53              | 5000             | F0333 80. M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 14.71           | 93.16  | 113              | 2.22              | 5000             | F0333 90. M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 13.22           | 103.64 | 125              | 1.99              | 5000             | F0333 100 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 11.99           | 114.26 | 138              | 1.81              | 5000             | F0333 112 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 10.90           | 125.74 | 152              | 1.64              | 5000             | F0333 125 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 9.30            | 147.32 | 178              | 1.40              | 5000             | F0333 160 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 7.75            | 176.75 | 214              | 1.17              | 5000             | F0333 180 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 6.65            | 206.03 | 249              | 1.00              | 5000             | F0333 200 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 5.98            | 228.92 | 277              | 0.90              | 8000             | F0333 225 M _ _ _ _ .18A _ _                                                             | 23                              | 63            |
| 18.75           | 73.07  | 89.4             | 3.58              | 6400             | F0423 71. M _ _ _ _ .18A _ _                                                             | 27                              | 63            |
| 16.52           | 82.94  | 101              | 2.83              | 6400             | F0423 90. M _ _ _ _ .18A _ _                                                             | 27                              | 63            |
| 14.53           | 94.29  | 115              | 2.23              | 6400             | F0423 100 M _ _ _ _ .18A _ _                                                             | 27                              | 63            |
| 15.17           | 90.28  | 109              | 3.78              | 6400             | F0433 90. M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 13.64           | 100.43 | 122              | 3.45              | 6400             | F0433 100 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 12.37           | 110.72 | 134              | 3.13              | 6400             | F0433 112 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 11.24           | 121.85 | 148              | 2.85              | 6400             | F0433 125 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 9.60            | 142.76 | 173              | 2.43              | 6400             | F0433 160 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 8.00            | 171.28 | 207              | 2.03              | 6400             | F0433 180 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 6.86            | 199.65 | 242              | 1.74              | 6400             | F0433 200 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 6.18            | 221.84 | 269              | 1.56              | 6400             | F0433 225 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 5.13            | 267.14 | 323              | 1.30              | 6400             | F0433 280 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 4.47            | 306.20 | 371              | 1.13              | 6400             | F0433 320 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 3.94            | 347.99 | 421              | 1.00              | 6394             | F0433 360 M _ _ _ _ .18A _ _                                                             | 29                              | 63            |
| 10.52           | 130.20 | 158              | 3.89              | 9000             | F0533 125 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 9.68            | 141.55 | 171              | 3.70              | 9000             | F0533 160 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 8.06            | 169.93 | 206              | 3.37              | 9000             | F0533 180 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 6.72            | 203.92 | 247              | 2.84              | 9000             | F0533 200 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 5.96            | 229.77 | 278              | 2.52              | 9000             | F0533 225 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 5.13            | 267.11 | 323              | 2.16              | 9000             | F0533 280 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 4.52            | 303.17 | 367              | 1.91              | 9000             | F0533 320 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 3.98            | 344.65 | 417              | 1.68              | 9000             | F0533 360 M _ _ _ _ .18A _ _                                                             | 39                              | 63            |
| 3.34            | 409.90 | 489              | 1.43              | 9000             | F0543 400 M _ _ _ _ .18A _ _                                                             | 49                              | 63            |
| 3.04            | 451.39 | 538              | 1.30              | 9000             | F0543 450 M _ _ _ _ .18A _ _                                                             | 49                              | 63            |
| 2.71            | 505.02 | 602              | 1.16              | 9000             | F0543 500 M _ _ _ _ .18A _ _                                                             | 49                              | 63            |
| 2.43            | 564.47 | 673              | 1.04              | 9000             | F0543 560 M _ _ _ _ .18A _ _                                                             | 49                              | 63            |
| 2.17            | 631.55 | 753              | 0.93              | 8806             | F0543 630 M _ _ _ _ .18A _ _                                                             | 49                              | 63            |
| 1.96            | 699.15 | 833              | 0.84              | 8541             | F0543 710 M _ _ _ _ .18A _ _                                                             | 49                              | 63            |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.18 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 6.76            | 202.68  | 245              | 3.67              | 14500            | F0633 200 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 52                              | 63            |
| 6.00            | 228.38  | 277              | 3.25              | 14500            | F0633 225 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 52                              | 63            |
| 5.16            | 265.49  | 321              | 2.80              | 14500            | F0633 280 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 52                              | 63            |
| 4.55            | 301.33  | 365              | 2.47              | 14500            | F0633 320 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 52                              | 63            |
| 4.00            | 342.56  | 415              | 2.17              | 14500            | F0633 360 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 52                              | 63            |
| 3.36            | 407.41  | 486              | 1.85              | 14500            | F0643 400 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 3.05            | 448.65  | 535              | 1.68              | 14500            | F0643 450 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 2.73            | 501.96  | 598              | 1.50              | 14500            | F0643 500 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 2.44            | 561.05  | 669              | 1.35              | 14500            | F0643 560 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 2.18            | 627.72  | 748              | 1.20              | 14500            | F0643 630 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 1.88            | 729.32  | 869              | 1.04              | 14500            | F0643 710 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 1.71            | 803.17  | 957              | 0.94              | 14500            | F0643 800 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 1.52            | 904.28  | 1078             | 0.83              | 14500            | F0643 900 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 63                              | 63            |
| 3.43            | 399.78  | 477              | 3.57              | 16000            | F0743 400 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 3.02            | 453.34  | 540              | 3.15              | 16000            | F0743 450 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 2.74            | 499.22  | 595              | 2.86              | 16000            | F0743 500 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 2.49            | 550.54  | 656              | 2.59              | 16000            | F0743 560 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 2.19            | 624.29  | 744              | 2.28              | 16000            | F0743 630 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.92            | 712.98  | 850              | 2.00              | 16000            | F0743 710 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.73            | 793.09  | 945              | 1.80              | 16000            | F0743 800 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.52            | 899.34  | 1072             | 1.59              | 16000            | F0743 900 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.38            | 991.96  | 1182             | 1.44              | 16000            | F0743 10C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.23            | 1117.71 | 1332             | 1.28              | 16000            | F0743 11C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.07            | 1280.01 | 1526             | 1.11              | 16000            | F0743 12C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 0.95            | 1447.23 | 1725             | 0.99              | 16000            | F0743 14C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 0.82            | 1677.90 | 2000             | 0.85              | 16000            | F0743 16C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 0.77            | 1776.16 | 2117             | 0.80              | 16000            | F0743 18C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 88                              | 63            |
| 1.95            | 701.40  | 836              | 3.65              | 18000            | F0843 710 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.68            | 815.79  | 972              | 3.14              | 18000            | F0843 800 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.50            | 912.72  | 1088             | 2.80              | 18000            | F0843 900 _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.37            | 1002.59 | 1195             | 2.55              | 18000            | F0843 10C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.25            | 1098.17 | 1309             | 2.33              | 18000            | F0843 11C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.11            | 1230.95 | 1467             | 2.08              | 18000            | F0843 12C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.01            | 1352.15 | 1612             | 1.89              | 18000            | F0843 14C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 0.83            | 1657.05 | 1975             | 1.54              | 18000            | F0843 16C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 0.76            | 1801.24 | 2147             | 1.42              | 18000            | F0843 18C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 0.69            | 1978.59 | 2358             | 1.29              | 18000            | F0843 20C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 0.63            | 2166.52 | 2583             | 1.18              | 18000            | F0843 22C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 0.57            | 2424.74 | 2890             | 1.06              | 18000            | F0843 25C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 0.52            | 2655.05 | 3165             | 0.96              | 18000            | F0843 28C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 135                             | 63            |
| 1.37            | 1001.59 | 1194             | 3.77              | 35000            | F0943 10C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 1.23            | 1112.77 | 1326             | 3.39              | 35000            | F0943 11C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 1.08            | 1266.68 | 1510             | 2.98              | 35000            | F0943 12C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.98            | 1398.38 | 1667             | 2.70              | 35000            | F0943 14C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.85            | 1604.88 | 1913             | 2.35              | 35000            | F0943 16C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.78            | 1760.86 | 2099             | 2.14              | 35000            | F0943 18C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.68            | 2029.56 | 2419             | 1.86              | 35000            | F0943 20C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.61            | 2240.58 | 2671             | 1.68              | 35000            | F0943 22C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.55            | 2487.29 | 2965             | 1.52              | 35000            | F0943 25C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.49            | 2772.29 | 3305             | 1.36              | 35000            | F0943 28C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.44            | 3109.11 | 3706             | 1.21              | 35000            | F0943 32C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.37            | 3719.83 | 4434             | 1.01              | 35000            | F0943 36C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |
| 0.33            | 4171.78 | 4973             | 0.90              | 35000            | F0943 40C _ M _ _ _ _ .18A _ _                                                                                                                                                             | 208                             | 63            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.18 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 152.5           | 5.90   | 11.0             | 6.19              | 2764             | F0223 5.0 M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 112.9           | 7.97   | 14.8             | 5.32              | 2543             | F0223 6.3 M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 99.23           | 9.07   | 16.9             | 4.97              | 2605             | F0223 9.0 M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 87.59           | 10.27  | 19.1             | 4.60              | 2655             | F0223 10. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 68.49           | 13.14  | 24.5             | 3.96              | 2781             | F0223 12. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 63.55           | 14.16  | 26.4             | 3.79              | 2819             | F0223 14. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 50.34           | 17.88  | 33.3             | 3.30              | 2948             | F0223 16. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 44.40           | 20.27  | 37.7             | 3.07              | 3025             | F0223 20. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 38.86           | 23.16  | 43.1             | 2.85              | 3109             | F0223 22. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 34.93           | 25.77  | 48.0             | 2.69              | 3175             | F0223 25. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 31.68           | 28.41  | 52.9             | 2.46              | 3746             | F0223 28. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 28.79           | 31.26  | 58.2             | 2.23              | 3767             | F0223 32. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 24.57           | 36.63  | 68.2             | 1.91              | 3786             | F0223 36. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 20.48           | 43.94  | 81.8             | 1.59              | 3850             | F0223 40. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 17.57           | 51.22  | 95.4             | 1.36              | 3850             | F0223 50. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 15.81           | 56.91  | 106              | 1.23              | 3850             | F0223 56. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 13.13           | 68.54  | 128              | 1.02              | 3850             | F0223 63. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 11.46           | 78.56  | 146              | 0.86              | 3850             | F0223 71. M _ _ _ _ .18C _ _                                                                                                                                                               | 22                              | 71            |
| 10.88           | 82.72  | 152              | 0.89              | 3850             | F0233 80. M _ _ _ _ .18C _ _                                                                                                                                                               | 23                              | 71            |
| 9.78            | 92.02  | 170              | 0.81              | 3850             | F0233 90. M _ _ _ _ .18C _ _                                                                                                                                                               | 23                              | 71            |
| 25.56           | 35.21  | 65.6             | 3.81              | 5000             | F0323 36. M _ _ _ _ .18C _ _                                                                                                                                                               | 24                              | 71            |
| 21.82           | 41.25  | 76.8             | 3.25              | 5000             | F0323 40. M _ _ _ _ .18C _ _                                                                                                                                                               | 24                              | 71            |
| 18.19           | 49.49  | 92.2             | 2.47              | 5000             | F0323 50. M _ _ _ _ .18C _ _                                                                                                                                                               | 24                              | 71            |
| 15.60           | 57.69  | 107              | 1.85              | 5000             | F0323 56. M _ _ _ _ .18C _ _                                                                                                                                                               | 24                              | 71            |
| 14.04           | 64.10  | 119              | 1.57              | 5000             | F0323 63. M _ _ _ _ .18C _ _                                                                                                                                                               | 24                              | 71            |
| 11.66           | 77.19  | 144              | 1.04              | 5000             | F0323 71. M _ _ _ _ .18C _ _                                                                                                                                                               | 24                              | 71            |
| 12.51           | 71.91  | 132.5            | 1.89              | 5000             | F0333 71. M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 11.04           | 81.53  | 150.3            | 1.66              | 5000             | F0333 80. M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 9.66            | 93.16  | 171.7            | 1.46              | 5000             | F0333 90. M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 8.68            | 103.64 | 191.0            | 1.31              | 5000             | F0333 100 M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 7.88            | 114.26 | 210.6            | 1.19              | 5000             | F0333 112 M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 7.16            | 125.74 | 231.8            | 1.08              | 5000             | F0333 125 M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 6.11            | 147.32 | 271.5            | 0.92              | 5000             | F0333 160 M _ _ _ _ .18C _ _                                                                                                                                                               | 25                              | 71            |
| 14.32           | 62.86  | 117              | 3.26              | 6400             | F0423 63. M _ _ _ _ .18C _ _                                                                                                                                                               | 30                              | 71            |
| 12.32           | 73.07  | 136              | 2.43              | 6400             | F0423 71. M _ _ _ _ .18C _ _                                                                                                                                                               | 30                              | 71            |
| 10.85           | 82.94  | 154              | 1.93              | 6400             | F0423 90. M _ _ _ _ .18C _ _                                                                                                                                                               | 30                              | 71            |
| 9.55            | 94.29  | 176              | 1.51              | 6400             | F0423 100 M _ _ _ _ .18C _ _                                                                                                                                                               | 30                              | 71            |
| 12.91           | 69.69  | 128.4            | 3.22              | 6400             | F0433 71. M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 11.39           | 79.00  | 145.6            | 2.88              | 6400             | F0433 80. M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 9.97            | 90.28  | 166.4            | 2.52              | 6400             | F0433 90. M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 8.96            | 100.43 | 185.1            | 2.27              | 6400             | F0433 100 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 8.13            | 110.72 | 204.1            | 2.06              | 6400             | F0433 112 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 7.39            | 121.85 | 224.6            | 1.87              | 6400             | F0433 125 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 6.30            | 142.76 | 263.1            | 1.60              | 6400             | F0433 160 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 5.25            | 171.28 | 315.7            | 1.33              | 6400             | F0433 180 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 4.51            | 199.65 | 368.0            | 1.14              | 6400             | F0433 200 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 4.06            | 221.84 | 408.9            | 1.03              | 6400             | F0433 225 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 3.37            | 267.14 | 492.4            | 0.85              | 6400             | F0433 280 M _ _ _ _ .18C _ _                                                                                                                                                               | 32                              | 71            |
| 9.47            | 95.08  | 177              | 2.72              | 9000             | F0523 100 M _ _ _ _ .18C _ _                                                                                                                                                               | 39                              | 71            |
| 8.76            | 102.79 | 189.5            | 3.69              | 9000             | F0533 100 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 7.95            | 113.20 | 208.6            | 3.36              | 9000             | F0533 112 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 6.91            | 130.20 | 240.0            | 2.92              | 9000             | F0533 125 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 6.36            | 141.55 | 260.9            | 2.68              | 9000             | F0533 160 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 5.30            | 169.93 | 313.2            | 2.23              | 9000             | F0533 180 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 4.41            | 203.92 | 375.9            | 1.86              | 9000             | F0533 200 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 3.92            | 229.77 | 423.5            | 1.65              | 9000             | F0533 225 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 3.37            | 267.11 | 492.3            | 1.42              | 9000             | F0533 280 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 2.97            | 303.17 | 558.8            | 1.25              | 9000             | F0533 320 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 2.61            | 344.65 | 635.2            | 1.10              | 9000             | F0533 360 M _ _ _ _ .18C _ _                                                                                                                                                               | 42                              | 71            |
| 2.20            | 409.90 | 744              | 0.94              | 9000             | F0543 400 M _ _ _ _ .18C _ _                                                                                                                                                               | 52                              | 71            |
| 1.99            | 451.39 | 819              | 0.85              | 9000             | F0543 450 M _ _ _ _ .18C _ _                                                                                                                                                               | 52                              | 71            |
| 6.95            | 129.41 | 238.5            | 3.77              | 14500            | F0633 125 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 6.40            | 140.70 | 259.3            | 3.47              | 14500            | F0633 160 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 5.33            | 168.90 | 311.3            | 2.89              | 14500            | F0633 180 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 4.44            | 202.68 | 373.6            | 2.41              | 14500            | F0633 200 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 3.94            | 228.38 | 420.9            | 2.14              | 14500            | F0633 225 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 3.39            | 265.49 | 489.3            | 1.84              | 14500            | F0633 280 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 2.99            | 301.33 | 555.4            | 1.62              | 14500            | F0633 320 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |
| 2.63            | 342.56 | 631.4            | 1.43              | 14500            | F0633 360 M _ _ _ _ .18C _ _                                                                                                                                                               | 55                              | 71            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.18 kW**

6 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 2.21            | 407.41  | 739.3            | 1.22              | 14500            | F0643400_M_---.18C--                                                                                                                                                                       | 66                              | 71            |
| 2.01            | 448.65  | 814.1            | 1.11              | 14500            | F0643450_M_---.18C--                                                                                                                                                                       | 66                              | 71            |
| 1.79            | 501.96  | 910.8            | 0.99              | 14500            | F0643500_M_---.18C--                                                                                                                                                                       | 66                              | 71            |
| 1.60            | 561.05  | 1018.0           | 0.88              | 14500            | F0643560_M_---.18C--                                                                                                                                                                       | 66                              | 71            |
| 3.31            | 272.22  | 501.7            | 3.39              | 16000            | F0733280_M_---.18C--                                                                                                                                                                       | 81                              | 71            |
| 2.97            | 303.41  | 559.2            | 3.04              | 16000            | F0733320_M_---.18C--                                                                                                                                                                       | 81                              | 71            |
| 2.64            | 340.28  | 627.2            | 2.71              | 16000            | F0733360_M_---.18C--                                                                                                                                                                       | 81                              | 71            |
| 2.25            | 399.78  | 725.4            | 2.34              | 16000            | F0743400_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.99            | 453.34  | 822.6            | 2.07              | 16000            | F0743450_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.80            | 499.22  | 905.8            | 1.88              | 16000            | F0743500_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.63            | 550.54  | 998.9            | 1.70              | 16000            | F0743560_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.44            | 624.29  | 1132.8           | 1.50              | 16000            | F0743630_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.26            | 712.98  | 1293.7           | 1.31              | 16000            | F0743710_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.13            | 793.09  | 1439.1           | 1.18              | 16000            | F0743800_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 1.00            | 899.34  | 1631.9           | 1.04              | 16000            | F0743900_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 0.91            | 991.96  | 1799.9           | 0.94              | 16000            | F074310C_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 0.81            | 1117.71 | 2028.1           | 0.84              | 16000            | F074311C_M_---.18C--                                                                                                                                                                       | 91                              | 71            |
| 2.05            | 439.55  | 797.6            | 3.82              | 18000            | F0843450_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 1.81            | 496.15  | 900.3            | 3.39              | 18000            | F0843500_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 1.56            | 577.06  | 1047.1           | 2.91              | 18000            | F0843560_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 1.50            | 601.45  | 1091.3           | 2.79              | 18000            | F0843630_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 1.28            | 701.40  | 1272.7           | 2.40              | 18000            | F0843710_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 1.10            | 815.79  | 1480.2           | 2.06              | 18000            | F0843800_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.99            | 912.72  | 1656.1           | 1.84              | 18000            | F0843900_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.90            | 1002.59 | 1819.2           | 1.68              | 18000            | F084310C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.82            | 1098.17 | 1992.6           | 1.53              | 18000            | F084311C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.73            | 1230.95 | 2233.6           | 1.37              | 18000            | F084312C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.67            | 1352.15 | 2453.5           | 1.24              | 18000            | F084314C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.54            | 1657.05 | 3006.7           | 1.01              | 18000            | F084316C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.50            | 1801.24 | 3268.3           | 0.93              | 18000            | F084318C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 0.45            | 1978.59 | 3590.1           | 0.85              | 18000            | F084320C_M_---.18C--                                                                                                                                                                       | 138                             | 71            |
| 1.41            | 637.88  | 1157.4           | 3.72              | 35000            | F0943630_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 1.27            | 708.68  | 1285.9           | 3.35              | 35000            | F0943710_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 1.12            | 807.14  | 1464.6           | 2.94              | 35000            | F0943800_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 1.00            | 896.74  | 1627.1           | 2.65              | 35000            | F0943900_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.90            | 1001.59 | 1817.4           | 2.37              | 35000            | F094310C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.81            | 1112.77 | 2019.1           | 2.13              | 35000            | F094311C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.71            | 1266.68 | 2298.4           | 1.88              | 35000            | F094312C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.64            | 1398.38 | 2537.4           | 1.70              | 35000            | F094314C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.56            | 1604.88 | 2912.1           | 1.48              | 35000            | F094316C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.51            | 1760.86 | 3195.1           | 1.35              | 35000            | F094318C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.44            | 2029.56 | 3682.6           | 1.17              | 35000            | F094320C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.40            | 2240.58 | 4065.5           | 1.06              | 35000            | F094322C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.36            | 2487.29 | 4513.2           | 0.95              | 35000            | F094325C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |
| 0.32            | 2772.29 | 5030.3           | 0.86              | 35000            | F094328C_M_---.18C--                                                                                                                                                                       | 211                             | 71            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.25 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 232.1           | 5.90   | 10.0             | 6.28              | 2395             | F0223 5.0 M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 171.8           | 7.97   | 13.5             | 5.41              | 2556             | F0223 6.3 M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 151.1           | 9.07   | 15.4             | 5.06              | 2618             | F0223 9.0 M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 133.3           | 10.27  | 17.5             | 4.73              | 2677             | F0223 10. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 104.3           | 13.14  | 22.3             | 4.08              | 2806             | F0223 12. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 96.74           | 14.16  | 24.1             | 3.89              | 2840             | F0223 14. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 76.63           | 17.88  | 30.4             | 3.32              | 2954             | F0223 16. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 67.59           | 20.27  | 34.4             | 3.08              | 3026             | F0223 20. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 59.15           | 23.16  | 39.4             | 2.80              | 3090             | F0223 22. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 53.17           | 25.77  | 43.8             | 2.60              | 3145             | F0223 25. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 48.23           | 28.41  | 48.3             | 2.42              | 3182             | F0223 28. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 43.82           | 31.26  | 53.1             | 2.28              | 3239             | F0223 32. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 37.40           | 36.63  | 62.2             | 2.09              | 3355             | F0223 36. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 31.18           | 43.94  | 74.7             | 1.74              | 3413             | F0223 40. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 26.75           | 51.22  | 87.0             | 1.49              | 3429             | F0223 50. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 24.07           | 56.91  | 96.7             | 1.34              | 3464             | F0223 56. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 19.99           | 68.54  | 116.5            | 1.12              | 3483             | F0223 63. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 17.44           | 78.56  | 133.5            | 0.95              | 3510             | F0223 71. M _ _ _ _ .25A - -                                                                                                                                                               | 22                              | 71            |
| 16.56           | 82.72  | 139.1            | 0.93              | 3733             | F0233 80. M _ _ _ _ .25A - -                                                                                                                                                               | 23                              | 71            |
| 14.89           | 92.02  | 154.7            | 0.84              | 3654             | F0233 90. M _ _ _ _ .25A - -                                                                                                                                                               | 23                              | 71            |
| 33.21           | 41.25  | 70.1             | 3.54              | 5000             | F0323 40. M _ _ _ _ .25A - -                                                                                                                                                               | 24                              | 71            |
| 27.68           | 49.49  | 84.1             | 2.58              | 5000             | F0323 50. M _ _ _ _ .25A - -                                                                                                                                                               | 24                              | 71            |
| 23.75           | 57.69  | 98.0             | 1.94              | 5000             | F0323 56. M _ _ _ _ .25A - -                                                                                                                                                               | 24                              | 71            |
| 21.37           | 64.10  | 108.9            | 1.64              | 5000             | F0323 63. M _ _ _ _ .25A - -                                                                                                                                                               | 24                              | 71            |
| 17.75           | 77.19  | 131.2            | 1.14              | 5000             | F0323 71. M _ _ _ _ .25A - -                                                                                                                                                               | 24                              | 71            |
| 15.49           | 88.47  | 150.3            | 0.85              | 5000             | F0323 90. M _ _ _ _ .25A - -                                                                                                                                                               | 24                              | 71            |
| 19.05           | 71.91  | 120.9            | 2.07              | 5000             | F0333 71. M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 16.80           | 81.53  | 137.1            | 1.82              | 5000             | F0333 80. M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 14.71           | 93.16  | 156.7            | 1.60              | 5000             | F0333 90. M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 13.22           | 103.64 | 174.3            | 1.43              | 5000             | F0333 100 M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 11.99           | 114.26 | 192.1            | 1.30              | 5000             | F0333 112 M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 10.90           | 125.74 | 211.5            | 1.18              | 5000             | F0333 125 M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 9.30            | 147.32 | 247.8            | 1.01              | 5000             | F0333 160 M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 7.75            | 176.75 | 297.2            | 0.84              | 5000             | F0333 180 M _ _ _ _ .25A - -                                                                                                                                                               | 25                              | 71            |
| 21.80           | 62.86  | 106.8            | 3.44              | 6400             | F0423 63. M _ _ _ _ .25A - -                                                                                                                                                               | 30                              | 71            |
| 18.75           | 73.07  | 124.2            | 2.58              | 6400             | F0423 71. M _ _ _ _ .25A - -                                                                                                                                                               | 30                              | 71            |
| 16.52           | 82.94  | 140.9            | 2.04              | 6400             | F0423 90. M _ _ _ _ .25A - -                                                                                                                                                               | 30                              | 71            |
| 14.53           | 94.29  | 160.2            | 1.61              | 6400             | F0423 100 M _ _ _ _ .25A - -                                                                                                                                                               | 30                              | 71            |
| 19.66           | 69.69  | 117.2            | 3.23              | 6400             | F0433 71. M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 17.34           | 79.00  | 132.9            | 2.97              | 6400             | F0433 80. M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 15.17           | 90.28  | 151.8            | 2.72              | 6400             | F0433 90. M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 13.64           | 100.43 | 168.9            | 2.49              | 6400             | F0433 100 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 12.37           | 110.72 | 186.2            | 2.26              | 6400             | F0433 112 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 11.24           | 121.85 | 204.9            | 2.05              | 6400             | F0433 125 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 9.60            | 142.76 | 240.1            | 1.75              | 6400             | F0433 160 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 8.00            | 171.28 | 288.0            | 1.46              | 6400             | F0433 180 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 6.86            | 199.65 | 335.8            | 1.25              | 6400             | F0433 200 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 6.18            | 221.84 | 373.1            | 1.13              | 6400             | F0433 225 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 5.13            | 267.14 | 449.3            | 0.93              | 6400             | F0433 280 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 4.47            | 306.20 | 514.9            | 0.82              | 6400             | F0433 320 M _ _ _ _ .25A - -                                                                                                                                                               | 32                              | 71            |
| 13.33           | 102.79 | 172.9            | 3.30              | 9000             | F0533 100 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 12.10           | 113.20 | 190.4            | 3.07              | 9000             | F0533 112 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 10.52           | 130.20 | 219.0            | 2.80              | 9000             | F0533 125 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 9.68            | 141.55 | 238.1            | 2.67              | 9000             | F0533 160 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 8.06            | 169.93 | 285.8            | 2.43              | 9000             | F0533 180 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 6.72            | 203.92 | 342.9            | 2.04              | 9000             | F0533 200 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 5.96            | 229.77 | 386.4            | 1.81              | 9000             | F0533 225 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 5.13            | 267.11 | 449.2            | 1.56              | 9000             | F0533 280 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 4.52            | 303.17 | 509.8            | 1.37              | 9000             | F0533 320 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 3.98            | 344.65 | 579.6            | 1.21              | 9000             | F0533 360 M _ _ _ _ .25A - -                                                                                                                                                               | 42                              | 71            |
| 3.34            | 409.90 | 678.6            | 1.03              | 9000             | F0543 400 M _ _ _ _ .25A - -                                                                                                                                                               | 52                              | 71            |
| 3.04            | 451.39 | 747.3            | 0.94              | 9000             | F0543 450 M _ _ _ _ .25A - -                                                                                                                                                               | 52                              | 71            |
| 2.71            | 505.02 | 836.1            | 0.84              | 9000             | F0543 500 M _ _ _ _ .25A - -                                                                                                                                                               | 52                              | 71            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.25 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 9.74            | 140.70  | 236.6            | 3.80              | 14500            | F0633 160 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 8.11            | 168.90  | 284.0            | 3.17              | 14500            | F0633 180 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 6.76            | 202.68  | 340.9            | 2.64              | 14500            | F0633 200 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 6.00            | 228.38  | 384.1            | 2.34              | 14500            | F0633 225 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 5.16            | 265.49  | 446.5            | 2.02              | 14500            | F0633 280 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 4.55            | 301.33  | 506.7            | 1.78              | 14500            | F0633 320 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 4.00            | 342.56  | 576.1            | 1.56              | 14500            | F0633 360 _ M _ _ _ .25A - -                                                                                                                                                               | 55                              | 71            |
| 3.36            | 407.41  | 674.5            | 1.33              | 14500            | F0643 400 _ M _ _ _ .25A - -                                                                                                                                                               | 66                              | 71            |
| 3.05            | 448.65  | 742.8            | 1.21              | 14500            | F0643 450 _ M _ _ _ .25A - -                                                                                                                                                               | 66                              | 71            |
| 2.73            | 501.96  | 831.0            | 1.08              | 14500            | F0643 500 _ M _ _ _ .25A - -                                                                                                                                                               | 66                              | 71            |
| 2.44            | 561.05  | 928.9            | 0.97              | 14500            | F0643 560 _ M _ _ _ .25A - -                                                                                                                                                               | 66                              | 71            |
| 2.18            | 627.72  | 1039.2           | 0.87              | 14500            | F0643 630 _ M _ _ _ .25A - -                                                                                                                                                               | 66                              | 71            |
| 5.03            | 272.22  | 457.8            | 3.71              | 16000            | F0733 280 _ M _ _ _ .25A - -                                                                                                                                                               | 81                              | 71            |
| 4.52            | 303.41  | 510.3            | 3.33              | 16000            | F0733 320 _ M _ _ _ .25A - -                                                                                                                                                               | 81                              | 71            |
| 4.03            | 340.28  | 572.2            | 2.97              | 16000            | F0733 360 _ M _ _ _ .25A - -                                                                                                                                                               | 81                              | 71            |
| 3.43            | 399.78  | 661.9            | 2.57              | 16000            | F0743 400 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 3.02            | 453.34  | 750.5            | 2.27              | 16000            | F0743 450 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 2.74            | 499.22  | 826.5            | 2.06              | 16000            | F0743 500 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 2.49            | 550.54  | 911.5            | 1.87              | 16000            | F0743 560 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 2.19            | 624.29  | 1033.6           | 1.64              | 16000            | F0743 630 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 1.92            | 712.98  | 1180.4           | 1.44              | 16000            | F0743 710 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 1.73            | 793.09  | 1313.0           | 1.29              | 16000            | F0743 800 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 1.52            | 899.34  | 1488.9           | 1.14              | 16000            | F0743 900 _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 1.38            | 991.96  | 1642.3           | 1.04              | 16000            | F0743 10C _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 1.23            | 1117.71 | 1850.4           | 0.92              | 16000            | F0743 11C _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 1.07            | 1280.01 | 2119.1           | 0.80              | 16000            | F0743 12C _ M _ _ _ .25A - -                                                                                                                                                               | 91                              | 71            |
| 2.76            | 496.15  | 821.4            | 3.71              | 18000            | F0843 500 _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 2.37            | 577.06  | 955.4            | 3.19              | 18000            | F0843 560 _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 2.28            | 601.45  | 995.7            | 3.06              | 18000            | F0843 630 _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.95            | 701.40  | 1161.2           | 2.63              | 18000            | F0843 710 _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.68            | 815.79  | 1350.6           | 2.26              | 18000            | F0843 800 _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.50            | 912.72  | 1511.1           | 2.02              | 18000            | F0843 900 _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.37            | 1002.59 | 1659.9           | 1.84              | 18000            | F0843 10C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.25            | 1098.17 | 1818.1           | 1.68              | 18000            | F0843 11C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.11            | 1230.95 | 2037.9           | 1.50              | 18000            | F0843 12C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.01            | 1352.15 | 2238.6           | 1.36              | 18000            | F0843 14C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 0.83            | 1657.05 | 2743.4           | 1.11              | 18000            | F0843 16C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 0.76            | 1801.24 | 2982.1           | 1.02              | 18000            | F0843 18C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 0.69            | 1978.59 | 3275.7           | 0.93              | 18000            | F0843 20C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 0.63            | 2166.52 | 3586.8           | 0.85              | 18000            | F0843 22C _ M _ _ _ .25A - -                                                                                                                                                               | 138                             | 71            |
| 1.93            | 708.68  | 1173.3           | 3.84              | 35000            | F0943 710 _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 1.70            | 807.14  | 1336.3           | 3.37              | 35000            | F0943 800 _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 1.53            | 896.74  | 1484.6           | 3.03              | 35000            | F0943 900 _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 1.37            | 1001.59 | 1658.2           | 2.71              | 35000            | F0943 10C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 1.23            | 1112.77 | 1842.3           | 2.44              | 35000            | F0943 11C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 1.08            | 1266.68 | 2097.1           | 2.15              | 35000            | F0943 12C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.98            | 1398.38 | 2315.1           | 1.94              | 35000            | F0943 14C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.85            | 1604.88 | 2657.0           | 1.69              | 35000            | F0943 16C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.78            | 1760.86 | 2915.2           | 1.54              | 35000            | F0943 18C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.68            | 2029.56 | 3360.1           | 1.34              | 35000            | F0943 20C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.61            | 2240.58 | 3709.4           | 1.21              | 35000            | F0943 22C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.55            | 2487.29 | 4117.9           | 1.09              | 35000            | F0943 25C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.49            | 2772.29 | 4589.7           | 0.98              | 35000            | F0943 28C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |
| 0.44            | 3109.11 | 5147.3           | 0.87              | 35000            | F0943 32C _ M _ _ _ .25A - -                                                                                                                                                               | 211                             | 71            |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.25 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 155.9           | 5.90   | 14.9             | 4.55              | 2521             | F0223 5.0 M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 115.4           | 7.97   | 20.2             | 3.92              | 2319             | F0223 6.3 M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 101.4           | 9.07   | 22.9             | 3.66              | 2376             | F0223 9.0 M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 89.54           | 10.27  | 26.0             | 3.38              | 2422             | F0223 10. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 70.01           | 13.14  | 33.2             | 2.92              | 2537             | F0223 12. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 64.97           | 14.16  | 35.8             | 2.79              | 2571             | F0223 14. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 51.46           | 17.88  | 45.2             | 2.43              | 2689             | F0223 16. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 45.39           | 20.27  | 51.3             | 2.26              | 2759             | F0223 20. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 39.72           | 23.16  | 58.6             | 2.10              | 2835             | F0223 22. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 35.71           | 25.77  | 65.2             | 1.98              | 2896             | F0223 25. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 32.39           | 28.41  | 71.9             | 1.81              | 3416             | F0223 28. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 29.43           | 31.26  | 79.1             | 1.64              | 3436             | F0223 32. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 25.12           | 36.63  | 92.7             | 1.40              | 3453             | F0223 36. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 20.94           | 43.94  | 111.2            | 1.17              | 3532             | F0223 40. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 17.96           | 51.22  | 129.6            | 1.00              | 3573             | F0223 50. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 16.17           | 56.91  | 144.0            | 0.90              | 3617             | F0223 56. M _ _ _ .25C _ _                                                                                                                                                                 | 22                              | 71            |
| 35.27           | 26.09  | 66.0             | 3.79              | 5000             | F0323 25. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 31.70           | 29.02  | 73.4             | 3.40              | 5000             | F0323 28. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 28.76           | 31.99  | 80.9             | 3.09              | 5000             | F0323 32. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 26.13           | 35.21  | 89.1             | 2.81              | 5000             | F0323 36. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 22.30           | 41.25  | 104.4            | 2.40              | 5000             | F0323 40. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 18.59           | 49.49  | 125.2            | 1.82              | 5000             | F0323 50. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 15.95           | 57.69  | 146.0            | 1.36              | 5000             | F0323 56. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 14.35           | 64.10  | 162.2            | 1.15              | 5000             | F0323 63. M _ _ _ .25C _ _                                                                                                                                                                 | 24                              | 71            |
| 12.79           | 71.91  | 180.1            | 1.39              | 5000             | F0333 71. M _ _ _ .25C _ _                                                                                                                                                                 | 25                              | 71            |
| 11.28           | 81.53  | 204.2            | 1.22              | 5000             | F0333 80. M _ _ _ .25C _ _                                                                                                                                                                 | 25                              | 71            |
| 9.88            | 93.16  | 233.3            | 1.07              | 5000             | F0333 90. M _ _ _ .25C _ _                                                                                                                                                                 | 25                              | 71            |
| 8.88            | 103.64 | 259.5            | 0.96              | 5000             | F0333 100 M _ _ _ .25C _ _                                                                                                                                                                 | 25                              | 71            |
| 8.05            | 114.26 | 286.1            | 0.87              | 5000             | F0333 112 M _ _ _ .25C _ _                                                                                                                                                                 | 25                              | 71            |
| 19.79           | 46.49  | 117.6            | 3.57              | 6400             | F0423 50. M _ _ _ .25C _ _                                                                                                                                                                 | 30                              | 71            |
| 16.49           | 55.79  | 141.2            | 2.98              | 6400             | F0423 56. M _ _ _ .25C _ _                                                                                                                                                                 | 30                              | 71            |
| 14.64           | 62.86  | 159.0            | 2.40              | 6400             | F0423 63. M _ _ _ .25C _ _                                                                                                                                                                 | 30                              | 71            |
| 12.59           | 73.07  | 184.9            | 1.79              | 6400             | F0423 71. M _ _ _ .25C _ _                                                                                                                                                                 | 30                              | 71            |
| 11.09           | 82.94  | 209.8            | 1.42              | 6400             | F0423 90. M _ _ _ .25C _ _                                                                                                                                                                 | 30                              | 71            |
| 9.76            | 94.29  | 238.6            | 1.12              | 6400             | F0423 100 M _ _ _ .25C _ _                                                                                                                                                                 | 30                              | 71            |
| 13.20           | 69.69  | 174.5            | 2.37              | 6400             | F0433 71. M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 11.64           | 79.00  | 197.8            | 2.12              | 6400             | F0433 80. M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 10.19           | 90.28  | 226.1            | 1.86              | 6400             | F0433 90. M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 9.16            | 100.43 | 251.5            | 1.67              | 6400             | F0433 100 M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 8.31            | 110.72 | 277.3            | 1.51              | 6400             | F0433 112 M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 7.55            | 121.85 | 305.2            | 1.38              | 6400             | F0433 125 M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 6.44            | 142.76 | 357.5            | 1.17              | 6400             | F0433 160 M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 5.37            | 171.28 | 428.9            | 0.98              | 6400             | F0433 180 M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 4.61            | 199.65 | 500.0            | 0.84              | 6400             | F0433 200 M _ _ _ .25C _ _                                                                                                                                                                 | 32                              | 71            |
| 12.10           | 76.06  | 192.5            | 3.54              | 9000             | F0523 71. M _ _ _ .25C _ _                                                                                                                                                                 | 39                              | 71            |
| 10.85           | 84.78  | 214.5            | 2.95              | 9000             | F0523 90. M _ _ _ .25C _ _                                                                                                                                                                 | 39                              | 71            |
| 9.68            | 95.08  | 240.6            | 2.00              | 9000             | F0523 100 M _ _ _ .25C _ _                                                                                                                                                                 | 39                              | 71            |
| 8.95            | 102.79 | 257.4            | 2.72              | 9000             | F0533 100 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 8.13            | 113.20 | 283.5            | 2.47              | 9000             | F0533 112 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 7.07            | 130.20 | 326.1            | 2.15              | 9000             | F0533 125 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 6.50            | 141.55 | 354.5            | 1.97              | 9000             | F0533 160 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 5.41            | 169.93 | 425.6            | 1.64              | 9000             | F0533 180 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 4.51            | 203.92 | 510.7            | 1.37              | 9000             | F0533 200 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 4.00            | 229.77 | 575.4            | 1.22              | 9000             | F0533 225 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 3.44            | 267.11 | 668.9            | 1.05              | 9000             | F0533 280 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 3.03            | 303.17 | 759.2            | 0.92              | 9000             | F0533 320 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 2.67            | 344.65 | 863.1            | 0.81              | 9000             | F0533 360 M _ _ _ .25C _ _                                                                                                                                                                 | 42                              | 71            |
| 10.92           | 84.26  | 213.2            | 3.12              | 14500            | F0623 90. M _ _ _ .25C _ _                                                                                                                                                                 | 53                              | 71            |
| 9.74            | 94.50  | 239.1            | 2.02              | 14500            | F0623 100 M _ _ _ .25C _ _                                                                                                                                                                 | 53                              | 71            |
| 9.00            | 102.17 | 255.9            | 3.52              | 14500            | F0633 100 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 8.18            | 112.51 | 281.8            | 3.19              | 14500            | F0633 112 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 7.11            | 129.41 | 324.1            | 2.78              | 14500            | F0633 125 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 6.54            | 140.70 | 352.3            | 2.55              | 14500            | F0633 160 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 5.45            | 168.90 | 423.0            | 2.13              | 14500            | F0633 180 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 4.54            | 202.68 | 507.6            | 1.77              | 14500            | F0633 200 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 4.03            | 228.38 | 571.9            | 1.57              | 14500            | F0633 225 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 3.47            | 265.49 | 664.9            | 1.35              | 14500            | F0633 280 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 3.05            | 301.33 | 754.6            | 1.19              | 14500            | F0633 320 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |
| 2.69            | 342.56 | 857.9            | 1.05              | 14500            | F0633 360 M _ _ _ .25C _ _                                                                                                                                                                 | 55                              | 71            |

**NOTE**

Other output speeds  
are available using  
2 and 8 pole motors.  
Consult Application  
Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.25 kW**

6 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 5.35            | 172.03  | 430.8            | 3.95              | 16000            | F0733 180 _ M _ _ _ .25C _ _                                                             | 81                              | 71            |
| 4.54            | 202.86  | 508.0            | 3.35              | 16000            | F0733 200 _ M _ _ _ .25C _ _                                                             | 81                              | 71            |
| 4.14            | 222.12  | 556.3            | 3.06              | 16000            | F0733 225 _ M _ _ _ .25C _ _                                                             | 81                              | 71            |
| 3.38            | 272.22  | 681.7            | 2.49              | 16000            | F0733 280 _ M _ _ _ .25C _ _                                                             | 81                              | 71            |
| 3.03            | 303.41  | 759.8            | 2.24              | 16000            | F0733 320 _ M _ _ _ .25C _ _                                                             | 81                              | 71            |
| 2.70            | 340.28  | 852.1            | 1.99              | 16000            | F0733 360 _ M _ _ _ .25C _ _                                                             | 81                              | 71            |
| 2.30            | 399.78  | 985.6            | 1.72              | 16000            | F0743 400 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 2.03            | 453.34  | 1117.6           | 1.52              | 16000            | F0743 450 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 1.84            | 499.22  | 1230.8           | 1.38              | 16000            | F0743 500 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 1.67            | 550.54  | 1357.3           | 1.25              | 16000            | F0743 560 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 1.47            | 624.29  | 1539.1           | 1.10              | 16000            | F0743 630 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 1.29            | 712.98  | 1757.7           | 0.97              | 16000            | F0743 710 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 1.16            | 793.09  | 1955.3           | 0.87              | 16000            | F0743 800 _ M _ _ _ .25C _ _                                                             | 91                              | 71            |
| 2.37            | 388.52  | 957.8            | 3.18              | 18000            | F0843 400 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 2.09            | 439.55  | 1083.6           | 2.81              | 18000            | F0843 450 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 1.85            | 496.15  | 1223.2           | 2.49              | 18000            | F0843 500 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 1.59            | 577.06  | 1422.7           | 2.14              | 18000            | F0843 560 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 1.53            | 601.45  | 1482.8           | 2.06              | 18000            | F0843 630 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 1.31            | 701.40  | 1729.2           | 1.76              | 18000            | F0843 710 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 1.13            | 815.79  | 2011.2           | 1.52              | 18000            | F0843 800 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 1.01            | 912.72  | 2250.2           | 1.36              | 18000            | F0843 900 _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 0.92            | 1002.59 | 2471.7           | 1.23              | 18000            | F0843 10C _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 0.84            | 1098.17 | 2707.4           | 1.13              | 18000            | F0843 11C _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 0.75            | 1230.95 | 3034.7           | 1.01              | 18000            | F0843 12C _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 0.68            | 1352.15 | 3333.5           | 0.91              | 18000            | F0843 14C _ M _ _ _ .25C _ _                                                             | 138                             | 71            |
| 2.00            | 459.91  | 1133.9           | 3.80              | 35000            | F0943 450 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 1.80            | 510.96  | 1259.7           | 3.42              | 35000            | F0943 500 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 1.61            | 573.03  | 1412.7           | 3.05              | 35000            | F0943 560 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 1.44            | 637.88  | 1572.6           | 2.74              | 35000            | F0943 630 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 1.30            | 708.68  | 1747.1           | 2.47              | 35000            | F0943 710 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 1.14            | 807.14  | 1989.9           | 2.17              | 35000            | F0943 800 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 1.03            | 896.74  | 2210.8           | 1.95              | 35000            | F0943 900 _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.92            | 1001.59 | 2469.3           | 1.75              | 35000            | F0943 10C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.83            | 1112.77 | 2743.4           | 1.57              | 35000            | F0943 11C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.73            | 1266.68 | 3122.8           | 1.38              | 35000            | F0943 12C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.66            | 1398.38 | 3447.5           | 1.25              | 35000            | F0943 14C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.57            | 1604.88 | 3956.6           | 1.09              | 35000            | F0943 16C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.52            | 1760.86 | 4341.1           | 0.99              | 35000            | F0943 18C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |
| 0.45            | 2029.56 | 5003.6           | 0.86              | 35000            | F0943 20C _ M _ _ _ .25C _ _                                                             | 211                             | 71            |

**0.37 kW**

4 POLE

|       |        |     |      |      |                              |    |    |
|-------|--------|-----|------|------|------------------------------|----|----|
| 233.8 | 5.90   | 15  | 4.28 | 2134 | F0223 5.0 _ M _ _ _ .37A _ _ | 22 | 71 |
| 173.1 | 7.97   | 20  | 3.68 | 2277 | F0223 6.3 _ M _ _ _ .37A _ _ | 22 | 71 |
| 152.2 | 9.07   | 23  | 3.44 | 2332 | F0223 9.0 _ M _ _ _ .37A _ _ | 22 | 71 |
| 134.3 | 10.27  | 26  | 3.22 | 2385 | F0223 10. _ M _ _ _ .37A _ _ | 22 | 71 |
| 105.0 | 13.14  | 33  | 2.78 | 2500 | F0223 12. _ M _ _ _ .37A _ _ | 22 | 71 |
| 97.45 | 14.16  | 35  | 2.64 | 2530 | F0223 14. _ M _ _ _ .37A _ _ | 22 | 71 |
| 77.19 | 17.88  | 45  | 2.26 | 2632 | F0223 16. _ M _ _ _ .37A _ _ | 22 | 71 |
| 68.09 | 20.27  | 51  | 2.09 | 2696 | F0223 20. _ M _ _ _ .37A _ _ | 22 | 71 |
| 59.58 | 23.16  | 58  | 1.90 | 2753 | F0223 22. _ M _ _ _ .37A _ _ | 22 | 71 |
| 53.56 | 25.77  | 64  | 1.77 | 2802 | F0223 25. _ M _ _ _ .37A _ _ | 22 | 71 |
| 48.58 | 28.41  | 71  | 1.65 | 2835 | F0223 28. _ M _ _ _ .37A _ _ | 22 | 71 |
| 44.14 | 31.26  | 78  | 1.55 | 2886 | F0223 32. _ M _ _ _ .37A _ _ | 22 | 71 |
| 37.68 | 36.63  | 91  | 1.42 | 2989 | F0223 36. _ M _ _ _ .37A _ _ | 22 | 71 |
| 31.41 | 43.94  | 110 | 1.19 | 3041 | F0223 40. _ M _ _ _ .37A _ _ | 22 | 71 |
| 26.94 | 51.22  | 128 | 1.02 | 3055 | F0223 50. _ M _ _ _ .37A _ _ | 22 | 71 |
| 24.25 | 56.91  | 142 | 0.91 | 3087 | F0223 56. _ M _ _ _ .37A _ _ | 22 | 71 |
| 52.90 | 26.09  | 65  | 3.84 | 5000 | F0323 25. _ M _ _ _ .37A _ _ | 24 | 71 |
| 47.56 | 29.02  | 72  | 3.45 | 5000 | F0323 28. _ M _ _ _ .37A _ _ | 24 | 71 |
| 43.14 | 31.99  | 80  | 3.13 | 5000 | F0323 32. _ M _ _ _ .37A _ _ | 24 | 71 |
| 39.20 | 35.21  | 88  | 2.84 | 5000 | F0323 36. _ M _ _ _ .37A _ _ | 24 | 71 |
| 33.45 | 41.25  | 103 | 2.41 | 5000 | F0323 40. _ M _ _ _ .37A _ _ | 24 | 71 |
| 27.89 | 49.49  | 124 | 1.76 | 5000 | F0323 50. _ M _ _ _ .37A _ _ | 24 | 71 |
| 23.92 | 57.69  | 144 | 1.32 | 5000 | F0323 56. _ M _ _ _ .37A _ _ | 24 | 71 |
| 21.53 | 64.10  | 160 | 1.12 | 5000 | F0323 63. _ M _ _ _ .37A _ _ | 24 | 71 |
| 19.19 | 71.91  | 178 | 1.41 | 5000 | F0333 71. _ M _ _ _ .37A _ _ | 25 | 71 |
| 16.93 | 81.53  | 201 | 1.24 | 5000 | F0333 80. _ M _ _ _ .37A _ _ | 25 | 71 |
| 14.81 | 93.16  | 230 | 1.09 | 5000 | F0333 90. _ M _ _ _ .37A _ _ | 25 | 71 |
| 13.32 | 103.64 | 256 | 0.98 | 5000 | F0333 100 _ M _ _ _ .37A _ _ | 25 | 71 |
| 12.08 | 114.26 | 282 | 0.89 | 5000 | F0333 112 _ M _ _ _ .37A _ _ | 25 | 71 |
| 10.97 | 125.74 | 311 | 0.80 | 5000 | F0333 125 _ M _ _ _ .37A _ _ | 25 | 71 |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.37 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 29.69           | 46.49   | 116              | 3.62              | 6400             | F0423 50. _ M _ _ _ _ .37A - -                                                                                                                                                             | 30                              | 71            |
| 24.74           | 55.79   | 139              | 2.98              | 6400             | F0423 56. _ M _ _ _ _ .37A - -                                                                                                                                                             | 30                              | 71            |
| 21.95           | 62.86   | 157              | 2.34              | 6400             | F0423 63. _ M _ _ _ _ .37A - -                                                                                                                                                             | 30                              | 71            |
| 18.89           | 73.07   | 182              | 1.76              | 6400             | F0423 71. _ M _ _ _ _ .37A - -                                                                                                                                                             | 30                              | 71            |
| 16.64           | 82.94   | 207              | 1.39              | 6400             | F0423 90. _ M _ _ _ _ .37A - -                                                                                                                                                             | 30                              | 71            |
| 14.64           | 94.29   | 235              | 1.09              | 6400             | F0423 100 _ M _ _ _ _ .37A - -                                                                                                                                                             | 30                              | 71            |
| 19.80           | 69.69   | 172              | 2.20              | 6400             | F0433 71. _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 17.47           | 79.00   | 195              | 2.02              | 6400             | F0433 80. _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 15.29           | 90.28   | 223              | 1.85              | 6400             | F0433 90. _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 13.74           | 100.43  | 248              | 1.69              | 6400             | F0433 100 _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 12.46           | 110.72  | 274              | 1.54              | 6400             | F0433 112 _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 11.32           | 121.85  | 301              | 1.39              | 6400             | F0433 125 _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 9.67            | 142.76  | 353              | 1.19              | 6400             | F0433 160 _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 8.06            | 171.28  | 423              | 0.99              | 6400             | F0433 180 _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 6.91            | 199.65  | 493              | 0.85              | 6400             | F0433 200 _ M _ _ _ _ .37A - -                                                                                                                                                             | 32                              | 71            |
| 18.14           | 76.06   | 190              | 3.38              | 9000             | F0523 71. _ M _ _ _ _ .37A - -                                                                                                                                                             | 39                              | 71            |
| 16.28           | 84.78   | 212              | 2.99              | 9000             | F0523 90. _ M _ _ _ _ .37A - -                                                                                                                                                             | 39                              | 71            |
| 14.51           | 95.08   | 237              | 2.03              | 9000             | F0523 100 _ M _ _ _ _ .37A - -                                                                                                                                                             | 39                              | 71            |
| 13.43           | 102.79  | 254              | 2.24              | 9000             | F0533 100 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 12.19           | 113.20  | 280              | 2.09              | 9000             | F0533 112 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 10.60           | 130.20  | 322              | 1.91              | 9000             | F0533 125 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 9.75            | 141.55  | 350              | 1.82              | 9000             | F0533 160 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 8.12            | 169.93  | 420              | 1.65              | 9000             | F0533 180 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 6.77            | 203.92  | 504              | 1.39              | 9000             | F0533 200 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 6.01            | 229.77  | 568              | 1.23              | 9000             | F0533 225 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 5.17            | 267.11  | 660              | 1.06              | 9000             | F0533 280 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 4.55            | 303.17  | 749              | 0.93              | 9000             | F0533 320 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 4.00            | 344.65  | 852              | 0.82              | 9000             | F0533 360 _ M _ _ _ _ .37A - -                                                                                                                                                             | 42                              | 71            |
| 16.38           | 84.26   | 210              | 3.17              | 14500            | F0623 90. _ M _ _ _ _ .37A - -                                                                                                                                                             | 53                              | 71            |
| 14.60           | 94.50   | 236              | 2.04              | 14500            | F0623 100 _ M _ _ _ _ .37A - -                                                                                                                                                             | 53                              | 71            |
| 13.51           | 102.17  | 252              | 3.57              | 14500            | F0633 100 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 12.27           | 112.51  | 278              | 3.24              | 14500            | F0633 112 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 10.66           | 129.41  | 320              | 2.81              | 14500            | F0633 125 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 9.81            | 140.70  | 348              | 2.59              | 14500            | F0633 160 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 8.17            | 168.90  | 417              | 2.16              | 14500            | F0633 180 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 6.81            | 202.68  | 501              | 1.80              | 14500            | F0633 200 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 6.04            | 228.38  | 564              | 1.59              | 14500            | F0633 225 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 5.20            | 265.49  | 656              | 1.37              | 14500            | F0633 280 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 4.58            | 301.33  | 745              | 1.21              | 14500            | F0633 320 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 4.03            | 342.56  | 846              | 1.06              | 14500            | F0633 360 _ M _ _ _ _ .37A - -                                                                                                                                                             | 55                              | 71            |
| 3.39            | 407.41  | 991              | 0.91              | 14500            | F0643 400 _ M _ _ _ _ .37A - -                                                                                                                                                             | 66                              | 71            |
| 3.08            | 448.65  | 1091             | 0.82              | 14500            | F0643 450 _ M _ _ _ _ .37A - -                                                                                                                                                             | 66                              | 71            |
| 8.02            | 172.03  | 425              | 4.00              | 16000            | F0733 180 _ M _ _ _ _ .37A - -                                                                                                                                                             | 81                              | 71            |
| 6.80            | 202.86  | 501              | 3.39              | 16000            | F0733 200 _ M _ _ _ _ .37A - -                                                                                                                                                             | 81                              | 71            |
| 6.21            | 222.12  | 549              | 3.10              | 16000            | F0733 225 _ M _ _ _ _ .37A - -                                                                                                                                                             | 81                              | 71            |
| 5.07            | 272.22  | 673              | 2.53              | 16000            | F0733 280 _ M _ _ _ _ .37A - -                                                                                                                                                             | 81                              | 71            |
| 4.55            | 303.41  | 750              | 2.27              | 16000            | F0733 320 _ M _ _ _ _ .37A - -                                                                                                                                                             | 81                              | 71            |
| 4.06            | 340.28  | 841              | 2.02              | 16000            | F0733 360 _ M _ _ _ _ .37A - -                                                                                                                                                             | 81                              | 71            |
| 3.45            | 399.78  | 972              | 1.75              | 16000            | F0743 400 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 3.04            | 453.34  | 1103             | 1.54              | 16000            | F0743 450 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 2.76            | 499.22  | 1214             | 1.40              | 16000            | F0743 500 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 2.51            | 550.54  | 1339             | 1.27              | 16000            | F0743 560 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 2.21            | 624.29  | 1519             | 1.12              | 16000            | F0743 630 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 1.94            | 712.98  | 1734             | 0.98              | 16000            | F0743 710 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 1.74            | 793.09  | 1929             | 0.88              | 16000            | F0743 800 _ M _ _ _ _ .37A - -                                                                                                                                                             | 91                              | 71            |
| 3.55            | 388.52  | 945              | 3.23              | 18000            | F0843 400 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 3.14            | 439.55  | 1069             | 2.85              | 18000            | F0843 450 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 2.78            | 496.15  | 1207             | 2.53              | 18000            | F0843 500 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 2.39            | 577.06  | 1404             | 2.17              | 18000            | F0843 560 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 2.29            | 601.45  | 1463             | 2.08              | 18000            | F0843 630 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.97            | 701.40  | 1706             | 1.79              | 18000            | F0843 710 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.69            | 815.79  | 1984             | 1.54              | 18000            | F0843 800 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.51            | 912.72  | 2220             | 1.37              | 18000            | F0843 900 _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.38            | 1002.59 | 2439             | 1.25              | 18000            | F0843 10C _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.26            | 1098.17 | 2671             | 1.14              | 18000            | F0843 11C _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.12            | 1230.95 | 2994             | 1.02              | 18000            | F0843 12C _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |
| 1.02            | 1352.15 | 3289             | 0.93              | 18000            | F0843 14C _ M _ _ _ _ .37A - -                                                                                                                                                             | 138                             | 71            |

**NOTE**

Other output speeds  
are available using  
2 and 8 pole motors.  
Consult Application  
Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.37 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 2.70            | 510.96  | 1243             | 3.62              | 35000            | F0943 500 _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 2.41            | 573.03  | 1394             | 3.23              | 35000            | F0943 560 _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 2.16            | 637.88  | 1552             | 2.90              | 35000            | F0943 630 _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 1.95            | 708.68  | 1724             | 2.61              | 35000            | F0943 710 _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 1.71            | 807.14  | 1963             | 2.29              | 35000            | F0943 800 _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 1.54            | 896.74  | 2181             | 2.06              | 35000            | F0943 900 _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 1.38            | 1001.59 | 2436             | 1.85              | 35000            | F0943 10C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 1.24            | 1112.77 | 2707             | 1.66              | 35000            | F0943 11C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 1.09            | 1266.68 | 3081             | 1.46              | 35000            | F0943 12C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 0.99            | 1398.38 | 3402             | 1.32              | 35000            | F0943 14C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 0.86            | 1604.88 | 3904             | 1.15              | 35000            | F0943 16C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 0.78            | 1760.86 | 4283             | 1.05              | 35000            | F0943 18C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 0.68            | 2029.56 | 4937             | 0.91              | 35000            | F0943 20C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |
| 0.62            | 2240.58 | 5450             | 0.83              | 35000            | F0943 22C _ M _ _ _ _ .37A _ _                                                                                                                                                             | 211                             | 71            |

**0.37 kW**

6 POLE

|       |        |       |      |      |                                |    |    |
|-------|--------|-------|------|------|--------------------------------|----|----|
| 155.9 | 5.90   | 22.1  | 3.08 | 2241 | F0223 5.0 _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 115.4 | 7.97   | 29.9  | 2.65 | 2062 | F0223 6.3 _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 101.4 | 9.07   | 34.0  | 2.47 | 2113 | F0223 9.0 _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 89.54 | 10.27  | 38.5  | 2.29 | 2153 | F0223 10. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 70.01 | 13.14  | 49.2  | 1.97 | 2255 | F0223 12. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 64.97 | 14.16  | 53.0  | 1.89 | 2286 | F0223 14. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 51.46 | 17.88  | 67.0  | 1.64 | 2391 | F0223 16. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 45.39 | 20.27  | 75.9  | 1.53 | 2453 | F0223 20. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 39.72 | 23.16  | 86.7  | 1.42 | 2521 | F0223 22. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 35.71 | 25.77  | 96.5  | 1.34 | 2575 | F0223 25. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 32.39 | 28.41  | 106.4 | 1.22 | 3037 | F0223 28. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 29.43 | 31.26  | 117.1 | 1.11 | 3055 | F0223 32. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 25.12 | 36.63  | 137.2 | 0.95 | 3070 | F0223 36. _ M _ _ _ _ .37C _ _ | 29 | 80 |
| 57.68 | 15.95  | 59.7  | 3.88 | 5000 | F0323 16. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 45.69 | 20.14  | 75.4  | 3.17 | 5000 | F0323 20. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 40.30 | 22.83  | 85.5  | 2.88 | 5000 | F0323 22. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 35.27 | 26.09  | 97.7  | 2.56 | 5000 | F0323 25. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 31.70 | 29.02  | 108.7 | 2.30 | 5000 | F0323 28. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 28.76 | 31.99  | 119.8 | 2.09 | 5000 | F0323 32. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 26.13 | 35.21  | 131.8 | 1.90 | 5000 | F0323 36. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 22.30 | 41.25  | 154.5 | 1.62 | 5000 | F0323 40. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 18.59 | 49.49  | 185.3 | 1.23 | 5000 | F0323 50. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 15.95 | 57.69  | 216.0 | 0.92 | 5000 | F0323 56. _ M _ _ _ _ .37C _ _ | 31 | 80 |
| 12.79 | 71.91  | 266.5 | 0.94 | 5000 | F0333 71. _ M _ _ _ _ .37C _ _ | 32 | 80 |
| 11.28 | 81.53  | 302.2 | 0.83 | 5000 | F0333 80. _ M _ _ _ _ .37C _ _ | 32 | 80 |
| 32.72 | 28.12  | 105.3 | 3.89 | 6400 | F0423 28. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 29.71 | 30.97  | 116.0 | 3.62 | 6400 | F0423 32. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 25.83 | 35.62  | 133.4 | 3.15 | 6400 | F0423 36. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 23.76 | 38.72  | 145.0 | 2.90 | 6400 | F0423 40. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 19.79 | 46.49  | 174.1 | 2.41 | 6400 | F0423 50. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 16.49 | 55.79  | 208.9 | 2.01 | 6400 | F0423 56. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 14.64 | 62.86  | 235.4 | 1.62 | 6400 | F0423 63. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 12.59 | 73.07  | 273.6 | 1.21 | 6400 | F0423 71. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 11.09 | 82.94  | 310.6 | 0.96 | 6400 | F0423 90. _ M _ _ _ _ .37C _ _ | 37 | 80 |
| 13.20 | 69.69  | 258.3 | 1.60 | 6400 | F0433 71. _ M _ _ _ _ .37C _ _ | 39 | 80 |
| 11.64 | 79.00  | 292.8 | 1.43 | 6400 | F0433 80. _ M _ _ _ _ .37C _ _ | 39 | 80 |
| 10.19 | 90.28  | 334.6 | 1.26 | 6400 | F0433 90. _ M _ _ _ _ .37C _ _ | 39 | 80 |
| 9.16  | 100.43 | 372.2 | 1.13 | 6400 | F0433 100 _ M _ _ _ _ .37C _ _ | 39 | 80 |
| 8.31  | 110.72 | 410.4 | 1.02 | 6400 | F0433 112 _ M _ _ _ _ .37C _ _ | 39 | 80 |
| 7.55  | 121.85 | 451.6 | 0.93 | 6400 | F0433 125 _ M _ _ _ _ .37C _ _ | 39 | 80 |
| 19.14 | 48.07  | 180.0 | 3.54 | 9000 | F0523 50. _ M _ _ _ _ .37C _ _ | 45 | 80 |
| 16.23 | 56.68  | 212.3 | 3.08 | 9000 | F0523 56. _ M _ _ _ _ .37C _ _ | 45 | 80 |
| 14.82 | 62.06  | 232.4 | 2.84 | 9000 | F0523 63. _ M _ _ _ _ .37C _ _ | 45 | 80 |
| 12.10 | 76.06  | 284.8 | 2.39 | 9000 | F0523 71. _ M _ _ _ _ .37C _ _ | 45 | 80 |
| 10.85 | 84.78  | 317.5 | 1.99 | 9000 | F0523 90. _ M _ _ _ _ .37C _ _ | 45 | 80 |
| 9.68  | 95.08  | 356.0 | 1.35 | 9000 | F0523 100 _ M _ _ _ _ .37C _ _ | 45 | 80 |
| 8.95  | 102.79 | 381.0 | 1.84 | 9000 | F0533 100 _ M _ _ _ _ .37C _ _ | 48 | 80 |
| 8.13  | 113.20 | 419.5 | 1.67 | 9000 | F0533 112 _ M _ _ _ _ .37C _ _ | 48 | 80 |
| 7.07  | 130.20 | 482.6 | 1.45 | 9000 | F0533 125 _ M _ _ _ _ .37C _ _ | 48 | 80 |
| 6.50  | 141.55 | 524.6 | 1.33 | 9000 | F0533 160 _ M _ _ _ _ .37C _ _ | 48 | 80 |
| 5.41  | 169.93 | 629.8 | 1.11 | 9000 | F0533 180 _ M _ _ _ _ .37C _ _ | 48 | 80 |
| 4.51  | 203.92 | 755.8 | 0.93 | 9000 | F0533 200 _ M _ _ _ _ .37C _ _ | 48 | 80 |
| 4.00  | 229.77 | 851.6 | 0.82 | 9000 | F0533 225 _ M _ _ _ _ .37C _ _ | 48 | 80 |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.37 kW**

6 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 14.91           | 61.69   | 231.0            | 3.90              | 14500            | F0623 63_ M _ _ _ _ .37C --                                                                                                                                                                | 60                              | 80            |
| 12.17           | 75.60   | 283.1            | 3.09              | 14500            | F0623 71_ M _ _ _ _ .37C --                                                                                                                                                                | 60                              | 80            |
| 10.92           | 84.26   | 315.5            | 2.11              | 14500            | F0623 90_ M _ _ _ _ .37C --                                                                                                                                                                | 60                              | 80            |
| 9.74            | 94.50   | 353.9            | 1.36              | 14500            | F0623 100_ M _ _ _ _ .37C --                                                                                                                                                               | 60                              | 80            |
| 9.00            | 102.17  | 378.7            | 2.38              | 14500            | F0633 100_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 8.18            | 112.51  | 417.0            | 2.16              | 14500            | F0633 112_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 7.11            | 129.41  | 479.6            | 1.88              | 14500            | F0633 125_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 6.54            | 140.70  | 521.5            | 1.73              | 14500            | F0633 160_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 5.45            | 168.90  | 626.0            | 1.44              | 14500            | F0633 180_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 4.54            | 202.68  | 751.2            | 1.20              | 14500            | F0633 200_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 4.03            | 228.38  | 846.4            | 1.06              | 14500            | F0633 225_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 3.47            | 265.49  | 984.0            | 0.91              | 14500            | F0633 280_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 3.05            | 301.33  | 1116.8           | 0.81              | 14500            | F0633 320_ M _ _ _ _ .37C --                                                                                                                                                               | 62                              | 80            |
| 10.85           | 84.78   | 317.5            | 3.84              | 16000            | F0723 90_ M _ _ _ _ .37C --                                                                                                                                                                | 84                              | 80            |
| 9.77            | 94.20   | 352.7            | 2.95              | 16000            | F0723 100_ M _ _ _ _ .37C --                                                                                                                                                               | 84                              | 80            |
| 11.65           | 78.99   | 292.8            | 5.16              | 16000            | F0733 80_ M _ _ _ _ .37C --                                                                                                                                                                | 88                              | 80            |
| 10.01           | 91.87   | 340.5            | 4.67              | 16000            | F0733 90_ M _ _ _ _ .37C --                                                                                                                                                                | 88                              | 80            |
| 8.95            | 102.79  | 381.0            | 4.46              | 16000            | F0733 100_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 8.40            | 109.56  | 406.1            | 4.19              | 16000            | F0733 112_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 7.09            | 129.84  | 481.2            | 3.53              | 16000            | F0733 125_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 6.64            | 138.63  | 513.8            | 3.31              | 16000            | F0733 160_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 5.35            | 172.03  | 637.6            | 2.67              | 16000            | F0733 180_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 4.54            | 202.86  | 751.9            | 2.26              | 16000            | F0733 200_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 4.14            | 222.12  | 823.3            | 2.06              | 16000            | F0733 225_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 3.38            | 272.22  | 1008.9           | 1.68              | 16000            | F0733 280_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 3.03            | 303.41  | 1124.5           | 1.51              | 16000            | F0733 320_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 2.70            | 340.28  | 1261.2           | 1.35              | 16000            | F0733 360_ M _ _ _ _ .37C --                                                                                                                                                               | 88                              | 80            |
| 2.30            | 399.78  | 1458.7           | 1.17              | 16000            | F0743 400_ M _ _ _ _ .37C --                                                                                                                                                               | 97                              | 80            |
| 2.03            | 453.34  | 1654.1           | 1.03              | 16000            | F0743 450_ M _ _ _ _ .37C --                                                                                                                                                               | 97                              | 80            |
| 1.84            | 499.22  | 1821.5           | 0.93              | 16000            | F0743 500_ M _ _ _ _ .37C --                                                                                                                                                               | 97                              | 80            |
| 1.67            | 550.54  | 2008.8           | 0.85              | 16000            | F0743 560_ M _ _ _ _ .37C --                                                                                                                                                               | 97                              | 80            |
| 4.14            | 222.21  | 810.8            | 3.76              | 18000            | F0833 225_ M _ _ _ _ .37C --                                                                                                                                                               | 127                             | 80            |
| 3.38            | 272.31  | 993.6            | 3.07              | 18000            | F0833 280_ M _ _ _ _ .37C --                                                                                                                                                               | 127                             | 80            |
| 3.09            | 297.37  | 1085.0           | 2.81              | 18000            | F0833 320_ M _ _ _ _ .37C --                                                                                                                                                               | 127                             | 80            |
| 2.69            | 342.42  | 1249.4           | 2.43              | 18000            | F0833 360_ M _ _ _ _ .37C --                                                                                                                                                               | 127                             | 80            |
| 2.37            | 388.52  | 1417.6           | 2.15              | 18000            | F0843 400_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 2.09            | 439.55  | 1603.8           | 1.90              | 18000            | F0843 450_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 1.85            | 496.15  | 1810.3           | 1.68              | 18000            | F0843 500_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 1.59            | 577.06  | 2105.5           | 1.45              | 18000            | F0843 560_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 1.53            | 601.45  | 2194.5           | 1.39              | 18000            | F0843 630_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 1.31            | 701.40  | 2559.2           | 1.19              | 18000            | F0843 710_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 1.13            | 815.79  | 2976.6           | 1.02              | 18000            | F0843 800_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 1.01            | 912.72  | 3330.3           | 0.92              | 18000            | F0843 900_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 0.92            | 1002.59 | 3658.2           | 0.83              | 18000            | F0843 10C_ M _ _ _ _ .37C --                                                                                                                                                               | 144                             | 80            |
| 2.23            | 413.16  | 1507.5           | 2.86              | 35000            | F0943 400_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 2.00            | 459.91  | 1678.1           | 2.57              | 35000            | F0943 450_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.80            | 510.96  | 1864.4           | 2.31              | 35000            | F0943 500_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.61            | 573.03  | 2090.8           | 2.06              | 35000            | F0943 560_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.44            | 637.88  | 2327.4           | 1.85              | 35000            | F0943 630_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.30            | 708.68  | 2585.8           | 1.67              | 35000            | F0943 710_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.14            | 807.14  | 2945.0           | 1.46              | 35000            | F0943 800_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.03            | 896.74  | 3271.9           | 1.32              | 35000            | F0943 900_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 0.92            | 1001.59 | 3654.5           | 1.18              | 35000            | F0943 10C_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 0.83            | 1112.77 | 4060.2           | 1.06              | 35000            | F0943 11C_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 0.73            | 1266.68 | 4621.8           | 0.93              | 35000            | F0943 12C_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 0.66            | 1398.38 | 5102.3           | 0.84              | 35000            | F0943 14C_ M _ _ _ _ .37C --                                                                                                                                                               | 217                             | 80            |
| 1.63            | 565.64  | 2063.9           | 3.88              | 43000            | F1043 560_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 1.48            | 622.20  | 2270.2           | 3.52              | 43000            | F1043 630_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 1.29            | 714.97  | 2608.7           | 3.07              | 43000            | F1043 710_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 1.13            | 810.75  | 2958.2           | 2.70              | 43000            | F1043 800_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 1.03            | 894.25  | 3262.9           | 2.45              | 43000            | F1043 900_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.90            | 1024.10 | 3736.7           | 2.14              | 43000            | F1043 10C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.81            | 1140.17 | 4160.2           | 1.92              | 43000            | F1043 11C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.73            | 1256.39 | 4584.2           | 1.75              | 43000            | F1043 12C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.66            | 1385.78 | 5056.3           | 1.58              | 43000            | F1043 14C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.57            | 1601.19 | 5842.3           | 1.37              | 43000            | F1043 16C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.51            | 1794.35 | 6547.1           | 1.22              | 43000            | F1043 18C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.45            | 2025.13 | 7389.1           | 1.08              | 43000            | F1043 20C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.41            | 2235.69 | 8157.4           | 0.98              | 43000            | F1043 22C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |
| 0.37            | 2481.31 | 9053.6           | 0.88              | 43000            | F1043 25C_ M _ _ _ _ .37C --                                                                                                                                                               | 305                             | 80            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.55 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 240.57          | 5.90   | 21               | 2.96              | 1911             | F0223 5.0 M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 178.09          | 7.97   | 29               | 2.55              | 2039             | F0223 6.3 M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 156.57          | 9.07   | 33               | 2.38              | 2089             | F0223 9.0 M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 138.20          | 10.27  | 37               | 2.23              | 2136             | F0223 10. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 108.06          | 13.14  | 47               | 1.92              | 2239             | F0223 12. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 100.27          | 14.16  | 51               | 1.83              | 2266             | F0223 14. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 79.42           | 17.88  | 64               | 1.57              | 2357             | F0223 16. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 70.06           | 20.27  | 73               | 1.45              | 2415             | F0223 20. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 61.31           | 23.16  | 84               | 1.32              | 2465             | F0223 22. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 55.11           | 25.77  | 93               | 1.23              | 2509             | F0223 25. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 49.99           | 28.41  | 102              | 1.14              | 2539             | F0223 28. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 45.42           | 31.26  | 113              | 1.07              | 2584             | F0223 32. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 38.77           | 36.63  | 132              | 0.98              | 2677             | F0223 36. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 32.32           | 43.94  | 158              | 0.82              | 2723             | F0223 40. M _ _ _ _ .55A - -                                                             | 29                              | 80            |
| 89.03           | 15.95  | 58               | 3.95              | 5000             | F0323 16. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 70.52           | 20.14  | 73               | 3.29              | 5000             | F0323 20. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 62.21           | 22.83  | 82               | 2.99              | 5000             | F0323 22. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 54.44           | 26.09  | 94               | 2.66              | 5000             | F0323 25. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 48.94           | 29.02  | 105              | 2.39              | 5000             | F0323 28. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 44.39           | 31.99  | 115              | 2.17              | 5000             | F0323 32. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 40.33           | 35.21  | 127              | 1.97              | 5000             | F0323 36. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 34.42           | 41.25  | 149              | 1.67              | 5000             | F0323 40. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 28.69           | 49.49  | 178              | 1.22              | 5000             | F0323 50. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 24.62           | 57.69  | 208              | 0.91              | 5000             | F0323 56. M _ _ _ _ .55A - -                                                             | 31                              | 80            |
| 19.75           | 71.91  | 257              | 0.97              | 5000             | F0333 71. M _ _ _ _ .55A - -                                                             | 32                              | 80            |
| 17.42           | 81.53  | 291              | 0.86              | 5000             | F0333 80. M _ _ _ _ .55A - -                                                             | 32                              | 80            |
| 50.50           | 28.12  | 101              | 3.86              | 6400             | F0423 28. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 45.86           | 30.97  | 112              | 3.55              | 6400             | F0423 32. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 39.87           | 35.62  | 128              | 3.15              | 6400             | F0423 36. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 36.67           | 38.72  | 140              | 2.94              | 6400             | F0423 40. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 30.55           | 46.49  | 168              | 2.51              | 6400             | F0423 50. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 25.45           | 55.79  | 201              | 2.06              | 6400             | F0423 56. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 22.59           | 62.86  | 227              | 1.62              | 6400             | F0423 63. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 19.43           | 73.07  | 264              | 1.22              | 6400             | F0423 71. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 17.12           | 82.94  | 299              | 0.96              | 6400             | F0423 90. M _ _ _ _ .55A - -                                                             | 37                              | 80            |
| 20.38           | 69.69  | 249              | 1.52              | 6400             | F0433 71. M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 17.97           | 79.00  | 282              | 1.40              | 6400             | F0433 80. M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 15.73           | 90.28  | 322              | 1.28              | 6400             | F0433 90. M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 14.14           | 100.43 | 358              | 1.17              | 6400             | F0433 100 M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 12.82           | 110.72 | 395              | 1.06              | 6400             | F0433 112 M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 11.65           | 121.85 | 435              | 0.97              | 6400             | F0433 125 M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 9.95            | 142.76 | 510              | 0.82              | 6400             | F0433 160 M _ _ _ _ .55A - -                                                             | 39                              | 80            |
| 29.54           | 48.07  | 173              | 3.46              | 7460             | F0523 50. M _ _ _ _ .55A - -                                                             | 45                              | 80            |
| 25.05           | 56.68  | 204              | 3.00              | 7761             | F0523 56. M _ _ _ _ .55A - -                                                             | 45                              | 80            |
| 22.88           | 62.06  | 224              | 2.78              | 7922             | F0523 63. M _ _ _ _ .55A - -                                                             | 45                              | 80            |
| 18.67           | 76.06  | 274              | 2.34              | 8307             | F0523 71. M _ _ _ _ .55A - -                                                             | 45                              | 80            |
| 16.75           | 84.78  | 306              | 2.07              | 8669             | F0523 90. M _ _ _ _ .55A - -                                                             | 45                              | 80            |
| 14.94           | 95.08  | 343              | 1.40              | 9000             | F0523 100 M _ _ _ _ .55A - -                                                             | 45                              | 80            |
| 13.81           | 102.79 | 367              | 1.55              | 8480             | F0533 100 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 12.54           | 113.20 | 404              | 1.45              | 8671             | F0533 112 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 10.91           | 130.20 | 465              | 1.32              | 8997             | F0533 125 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 10.03           | 141.55 | 505              | 1.26              | 9000             | F0533 160 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 8.36            | 169.93 | 607              | 1.14              | 9000             | F0533 180 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 6.96            | 203.92 | 728              | 0.96              | 9000             | F0533 200 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 6.18            | 229.77 | 820              | 0.85              | 9000             | F0533 225 M _ _ _ _ .55A - -                                                             | 48                              | 80            |
| 23.02           | 61.69  | 222              | 4.05              | 14500            | F0623 63. M _ _ _ _ .55A - -                                                             | 60                              | 80            |
| 18.78           | 75.60  | 273              | 3.22              | 14500            | F0623 71. M _ _ _ _ .55A - -                                                             | 60                              | 80            |
| 16.85           | 84.26  | 304              | 2.19              | 14500            | F0623 90. M _ _ _ _ .55A - -                                                             | 60                              | 80            |
| 15.03           | 94.50  | 341              | 1.41              | 14500            | F0623 100 M _ _ _ _ .55A - -                                                             | 60                              | 80            |
| 13.90           | 102.17 | 365              | 2.47              | 14500            | F0633 100 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 12.62           | 112.51 | 402              | 2.24              | 14500            | F0633 112 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 10.97           | 129.41 | 462              | 1.95              | 14500            | F0633 125 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 10.09           | 140.70 | 502              | 1.79              | 14500            | F0633 160 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 8.41            | 168.90 | 603              | 1.49              | 14500            | F0633 180 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 7.01            | 202.68 | 723              | 1.24              | 14500            | F0633 200 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 6.22            | 228.38 | 815              | 1.10              | 14500            | F0633 225 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 5.35            | 265.49 | 948              | 0.95              | 14500            | F0633 280 M _ _ _ _ .55A - -                                                             | 62                              | 80            |
| 4.71            | 301.33 | 1076             | 0.84              | 14500            | F0633 320 M _ _ _ _ .55A - -                                                             | 62                              | 80            |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.55 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 16.75           | 84.78   | 306              | 4.00              | 16000            | F0723 90_ M _ _ _ .55A - -                                                                                                                                                                 | 84                              | 80            |
| 15.07           | 94.20   | 340              | 3.07              | 16000            | F0723 100_ M _ _ _ .55A - -                                                                                                                                                                | 84                              | 80            |
| 17.98           | 78.99   | 282              | 4.93              | 16000            | F0733 80_ M _ _ _ .55A - -                                                                                                                                                                 | 88                              | 80            |
| 15.46           | 91.87   | 328              | 4.45              | 16000            | F0733 90_ M _ _ _ .55A - -                                                                                                                                                                 | 88                              | 80            |
| 13.81           | 102.79  | 367              | 4.25              | 16000            | F0733 100_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 12.96           | 109.56  | 391              | 3.99              | 16000            | F0733 112_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 10.94           | 129.84  | 463              | 3.50              | 16000            | F0733 125_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 10.24           | 138.63  | 495              | 3.33              | 16000            | F0733 160_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 8.25            | 172.03  | 614              | 2.77              | 16000            | F0733 180_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 7.00            | 202.86  | 724              | 2.35              | 16000            | F0733 200_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 6.39            | 222.12  | 793              | 2.14              | 16000            | F0733 225_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 5.22            | 272.22  | 972              | 1.75              | 16000            | F0733 280_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 4.68            | 303.41  | 1083             | 1.57              | 16000            | F0733 320_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 4.17            | 340.28  | 1215             | 1.40              | 16000            | F0733 360_ M _ _ _ .55A - -                                                                                                                                                                | 88                              | 80            |
| 3.55            | 399.78  | 1405             | 1.21              | 16000            | F0743 400_ M _ _ _ .55A - -                                                                                                                                                                | 97                              | 80            |
| 3.13            | 453.34  | 1593             | 1.07              | 16000            | F0743 450_ M _ _ _ .55A - -                                                                                                                                                                | 97                              | 80            |
| 2.84            | 499.22  | 1754             | 0.97              | 16000            | F0743 500_ M _ _ _ .55A - -                                                                                                                                                                | 97                              | 80            |
| 2.58            | 550.54  | 1935             | 0.88              | 16000            | F0743 560_ M _ _ _ .55A - -                                                                                                                                                                | 97                              | 80            |
| 6.39            | 222.21  | 781              | 3.91              | 18000            | F0833 225_ M _ _ _ .55A - -                                                                                                                                                                | 127                             | 80            |
| 5.21            | 272.31  | 957              | 3.19              | 18000            | F0833 280_ M _ _ _ .55A - -                                                                                                                                                                | 127                             | 80            |
| 4.78            | 297.37  | 1045             | 2.92              | 18000            | F0833 320_ M _ _ _ .55A - -                                                                                                                                                                | 127                             | 80            |
| 3.65            | 388.52  | 1365             | 2.23              | 18000            | F0843 400_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 3.23            | 439.55  | 1545             | 1.97              | 18000            | F0843 450_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 2.86            | 496.15  | 1743             | 1.75              | 18000            | F0843 500_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 2.46            | 577.06  | 2028             | 1.50              | 18000            | F0843 560_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 2.36            | 601.45  | 2114             | 1.44              | 18000            | F0843 630_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 2.02            | 701.40  | 2465             | 1.24              | 18000            | F0843 710_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 1.74            | 815.79  | 2867             | 1.06              | 18000            | F0843 800_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 1.56            | 912.72  | 3207             | 0.95              | 18000            | F0843 900_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 1.42            | 1002.59 | 3523             | 0.87              | 18000            | F0843 10C_ M _ _ _ .55A - -                                                                                                                                                                | 144                             | 80            |
| 3.44            | 413.16  | 1452             | 3.10              | 35000            | F0943 400_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 3.09            | 459.91  | 1616             | 2.78              | 35000            | F0943 450_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 2.78            | 510.96  | 1796             | 2.51              | 35000            | F0943 500_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 2.48            | 573.03  | 2014             | 2.23              | 35000            | F0943 560_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 2.23            | 637.88  | 2241             | 2.01              | 35000            | F0943 630_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 2.00            | 708.68  | 2490             | 1.81              | 35000            | F0943 710_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 1.76            | 807.14  | 2836             | 1.59              | 35000            | F0943 800_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 1.58            | 896.74  | 3151             | 1.43              | 35000            | F0943 900_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 1.42            | 1001.59 | 3520             | 1.28              | 35000            | F0943 10C_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 1.28            | 1112.77 | 3910             | 1.15              | 35000            | F0943 11C_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 1.12            | 1266.68 | 4451             | 1.01              | 35000            | F0943 12C_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 1.02            | 1398.38 | 4914             | 0.92              | 35000            | F0943 14C_ M _ _ _ .55A - -                                                                                                                                                                | 217                             | 80            |
| 2.51            | 565.64  | 1988             | 4.02              | 43000            | F1043 560_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 2.28            | 622.20  | 2186             | 3.66              | 43000            | F1043 630_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.99            | 714.97  | 2512             | 3.18              | 43000            | F1043 710_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.75            | 810.75  | 2849             | 2.81              | 43000            | F1043 800_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.59            | 894.25  | 3142             | 2.55              | 43000            | F1043 900_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.39            | 1024.10 | 3599             | 2.22              | 43000            | F1043 10C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.25            | 1140.17 | 4007             | 2.00              | 43000            | F1043 11C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.13            | 1256.39 | 4415             | 1.81              | 43000            | F1043 12C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 1.02            | 1385.78 | 4870             | 1.64              | 43000            | F1043 14C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 0.89            | 1601.19 | 5627             | 1.42              | 43000            | F1043 16C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 0.79            | 1794.35 | 6305             | 1.27              | 43000            | F1043 18C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 0.70            | 2025.13 | 7116             | 1.12              | 43000            | F1043 20C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 0.64            | 2235.69 | 7856             | 1.02              | 43000            | F1043 22C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 0.57            | 2481.31 | 8719             | 0.92              | 43000            | F1043 25C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |
| 0.51            | 2795.99 | 9825             | 0.81              | 43000            | F1043 28C_ M _ _ _ .55A - -                                                                                                                                                                | 305                             | 80            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.55 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 155.9           | 5.90   | 32.9             | 2.07              | 1990             | F0223 5.0 _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 115.4           | 7.97   | 44.4             | 1.78              | 1831             | F0223 6.3 _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 101.4           | 9.07   | 50.5             | 1.66              | 1876             | F0223 9.0 _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 89.54           | 10.27  | 57.2             | 1.54              | 1912             | F0223 10. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 70.01           | 13.14  | 73.1             | 1.33              | 2003             | F0223 12. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 64.97           | 14.16  | 78.8             | 1.27              | 2030             | F0223 14. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 51.46           | 17.88  | 99.5             | 1.11              | 2123             | F0223 16. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 45.39           | 20.27  | 112.8            | 1.03              | 2178             | F0223 20. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 39.72           | 23.16  | 128.9            | 0.95              | 2238             | F0223 22. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 35.71           | 25.77  | 143.4            | 0.90              | 2286             | F0223 25. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 32.39           | 28.41  | 158.1            | 0.82              | 2697             | F0223 28. _ M _ _ _ .55C _ _                                                             | 29                              | 80            |
| 102.4           | 8.98   | 50.0             | 3.88              | 5000             | F0323 9.0 _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 90.07           | 10.21  | 56.9             | 3.61              | 5000             | F0323 10. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 79.50           | 11.57  | 64.4             | 3.35              | 5000             | F0323 12. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 62.17           | 14.80  | 82.4             | 2.71              | 5000             | F0323 14. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 57.68           | 15.95  | 88.8             | 2.61              | 5000             | F0323 16. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 45.69           | 20.14  | 112.1            | 2.13              | 5000             | F0323 20. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 40.30           | 22.83  | 127.1            | 1.94              | 5000             | F0323 22. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 35.27           | 26.09  | 145.2            | 1.72              | 5000             | F0323 25. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 31.70           | 29.02  | 161.5            | 1.55              | 5000             | F0323 28. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 28.76           | 31.99  | 178.1            | 1.40              | 5000             | F0323 32. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 26.13           | 35.21  | 196.0            | 1.28              | 5000             | F0323 36. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 22.30           | 41.25  | 229.6            | 1.09              | 5000             | F0323 40. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 18.59           | 49.49  | 275.5            | 0.83              | 5000             | F0323 50. _ M _ _ _ .55C _ _                                                             | 31                              | 80            |
| 46.84           | 19.64  | 109.3            | 3.60              | 6400             | F0423 20. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 42.23           | 21.79  | 121.3            | 3.30              | 6400             | F0423 22. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 37.17           | 24.75  | 137.8            | 2.95              | 6400             | F0423 25. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 32.72           | 28.12  | 156.5            | 2.62              | 6400             | F0423 28. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 29.71           | 30.97  | 172.4            | 2.44              | 6400             | F0423 32. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 25.83           | 35.62  | 198.3            | 2.12              | 6400             | F0423 36. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 23.76           | 38.72  | 215.6            | 1.95              | 6400             | F0423 40. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 19.79           | 46.49  | 258.8            | 1.62              | 6400             | F0423 50. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 16.49           | 55.79  | 310.5            | 1.35              | 6400             | F0423 56. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 14.64           | 62.86  | 349.9            | 1.09              | 6400             | F0423 63. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 12.59           | 73.07  | 406.8            | 0.81              | 6400             | F0423 71. _ M _ _ _ .55C _ _                                                             | 37                              | 80            |
| 13.20           | 69.69  | 383.9            | 1.08              | 6400             | F0433 71. _ M _ _ _ .55C _ _                                                             | 39                              | 80            |
| 11.64           | 79.00  | 435.3            | 0.96              | 6400             | F0433 80. _ M _ _ _ .55C _ _                                                             | 39                              | 80            |
| 10.19           | 90.28  | 497.4            | 0.84              | 6400             | F0433 90. _ M _ _ _ .55C _ _                                                             | 39                              | 80            |
| 32.03           | 28.72  | 159.9            | 3.70              | 7213             | F0523 28. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 30.05           | 30.61  | 170.4            | 3.50              | 7327             | F0523 32. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 25.36           | 36.28  | 201.9            | 3.03              | 7642             | F0523 36. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 23.75           | 38.74  | 215.6            | 2.86              | 7773             | F0523 40. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 19.14           | 48.07  | 267.6            | 2.38              | 8160             | F0523 50. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 16.23           | 56.68  | 315.5            | 2.07              | 8471             | F0523 56. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 14.82           | 62.06  | 345.5            | 1.91              | 8638             | F0523 63. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 12.10           | 76.06  | 423.4            | 1.61              | 9000             | F0523 71. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 10.85           | 84.78  | 471.9            | 1.34              | 9000             | F0523 90. _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 9.68            | 95.08  | 529.2            | 0.91              | 9000             | F0523 100 _ M _ _ _ .55C _ _                                                             | 45                              | 80            |
| 8.95            | 102.79 | 566.3            | 1.24              | 9000             | F0533 100 _ M _ _ _ .55C _ _                                                             | 48                              | 80            |
| 8.13            | 113.20 | 623.6            | 1.12              | 9000             | F0533 112 _ M _ _ _ .55C _ _                                                             | 48                              | 80            |
| 7.07            | 130.20 | 717.3            | 0.98              | 9000             | F0533 125 _ M _ _ _ .55C _ _                                                             | 48                              | 80            |
| 6.50            | 141.55 | 779.9            | 0.90              | 9000             | F0533 160 _ M _ _ _ .55C _ _                                                             | 48                              | 80            |
| 19.26           | 47.78  | 265.9            | 3.38              | 14500            | F0623 50. _ M _ _ _ .55C _ _                                                             | 60                              | 80            |
| 16.33           | 56.34  | 313.6            | 2.87              | 14500            | F0623 56. _ M _ _ _ .55C _ _                                                             | 60                              | 80            |
| 14.91           | 61.69  | 343.4            | 2.62              | 14500            | F0623 63. _ M _ _ _ .55C _ _                                                             | 60                              | 80            |
| 12.17           | 75.60  | 420.8            | 2.08              | 14500            | F0623 71. _ M _ _ _ .55C _ _                                                             | 60                              | 80            |
| 10.92           | 84.26  | 469.0            | 1.42              | 14500            | F0623 90. _ M _ _ _ .55C _ _                                                             | 60                              | 80            |
| 9.74            | 94.50  | 526.0            | 0.92              | 14500            | F0623 100 _ M _ _ _ .55C _ _                                                             | 60                              | 80            |
| 9.00            | 102.17 | 562.9            | 1.60              | 14500            | F0633 100 _ M _ _ _ .55C _ _                                                             | 62                              | 80            |
| 8.18            | 112.51 | 619.9            | 1.45              | 14500            | F0633 112 _ M _ _ _ .55C _ _                                                             | 62                              | 80            |
| 7.11            | 129.41 | 713.0            | 1.26              | 14500            | F0633 125 _ M _ _ _ .55C _ _                                                             | 62                              | 80            |
| 6.54            | 140.70 | 775.1            | 1.16              | 14500            | F0633 160 _ M _ _ _ .55C _ _                                                             | 62                              | 80            |
| 5.45            | 168.90 | 930.6            | 0.97              | 14500            | F0633 180 _ M _ _ _ .55C _ _                                                             | 62                              | 80            |
| 4.54            | 202.68 | 1116.7           | 0.81              | 14500            | F0633 200 _ M _ _ _ .55C _ _                                                             | 62                              | 80            |
| 12.49           | 73.68  | 410.2            | 3.80              | 16000            | F0723 71. _ M _ _ _ .55C _ _                                                             | 84                              | 80            |
| 10.85           | 84.78  | 471.9            | 2.59              | 16000            | F0723 90. _ M _ _ _ .55C _ _                                                             | 84                              | 80            |
| 9.77            | 94.20  | 524.3            | 1.98              | 16000            | F0723 100 _ M _ _ _ .55C _ _                                                             | 84                              | 80            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.55 kW**

6 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 11.65           | 78.99   | 435.2            | 3.47              | 16000            | F0733 80_ M _ _ _ .55C - -                                                                                                                                                                 | 88                              | 80            |
| 10.01           | 91.87   | 506.2            | 3.14              | 16000            | F0733 90_ M _ _ _ .55C - -                                                                                                                                                                 | 88                              | 80            |
| 8.95            | 102.79  | 566.3            | 3.00              | 16000            | F0733 100_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 8.40            | 109.56  | 603.6            | 2.82              | 16000            | F0733 112_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 7.09            | 129.84  | 715.4            | 2.38              | 16000            | F0733 125_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 6.64            | 138.63  | 763.8            | 2.23              | 16000            | F0733 160_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 5.35            | 172.03  | 947.8            | 1.79              | 16000            | F0733 180_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 4.54            | 202.86  | 1117.6           | 1.52              | 16000            | F0733 200_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 4.14            | 222.12  | 1223.8           | 1.39              | 16000            | F0733 225_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 3.38            | 272.22  | 1499.8           | 1.13              | 16000            | F0733 280_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 3.03            | 303.41  | 1671.6           | 1.02              | 16000            | F0733 320_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 2.70            | 340.28  | 1874.7           | 0.91              | 16000            | F0733 360_ M _ _ _ .55C - -                                                                                                                                                                | 88                              | 80            |
| 6.43            | 143.09  | 788.4            | 3.87              | 18000            | F0833 160_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 5.30            | 173.46  | 955.7            | 3.19              | 18000            | F0833 180_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 4.55            | 202.29  | 1114.5           | 2.74              | 18000            | F0833 200_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 4.14            | 222.21  | 1224.2           | 2.49              | 18000            | F0833 225_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 3.38            | 272.31  | 1500.3           | 2.03              | 18000            | F0833 280_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 3.09            | 297.37  | 1638.3           | 1.86              | 18000            | F0833 320_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 2.69            | 342.42  | 1886.5           | 1.62              | 18000            | F0833 360_ M _ _ _ .55C - -                                                                                                                                                                | 127                             | 80            |
| 2.37            | 388.52  | 2107.2           | 1.45              | 18000            | F0843 400_ M _ _ _ .55C - -                                                                                                                                                                | 144                             | 80            |
| 2.09            | 439.55  | 2384.0           | 1.28              | 18000            | F0843 450_ M _ _ _ .55C - -                                                                                                                                                                | 144                             | 80            |
| 1.85            | 496.15  | 2691.0           | 1.13              | 18000            | F0843 500_ M _ _ _ .55C - -                                                                                                                                                                | 144                             | 80            |
| 1.59            | 577.06  | 3129.9           | 0.97              | 18000            | F0843 560_ M _ _ _ .55C - -                                                                                                                                                                | 144                             | 80            |
| 1.53            | 601.45  | 3262.1           | 0.93              | 18000            | F0843 630_ M _ _ _ .55C - -                                                                                                                                                                | 144                             | 80            |
| 1.31            | 701.40  | 3804.3           | 0.80              | 18000            | F0843 710_ M _ _ _ .55C - -                                                                                                                                                                | 144                             | 80            |
| 4.42            | 207.96  | 1145.8           | 3.93              | 35000            | F0933 200_ M _ _ _ .55C - -                                                                                                                                                                | 201                             | 80            |
| 4.03            | 228.44  | 1258.6           | 3.58              | 35000            | F0933 225_ M _ _ _ .55C - -                                                                                                                                                                | 201                             | 80            |
| 3.29            | 279.95  | 1542.4           | 2.92              | 35000            | F0933 280_ M _ _ _ .55C - -                                                                                                                                                                | 201                             | 80            |
| 3.01            | 305.71  | 1684.3           | 2.67              | 35000            | F0933 320_ M _ _ _ .55C - -                                                                                                                                                                | 201                             | 80            |
| 2.61            | 352.02  | 1939.4           | 2.32              | 35000            | F0933 360_ M _ _ _ .55C - -                                                                                                                                                                | 201                             | 80            |
| 2.23            | 413.16  | 2240.9           | 1.92              | 35000            | F0943 400_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 2.00            | 459.91  | 2494.5           | 1.73              | 35000            | F0943 450_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 1.80            | 510.96  | 2771.4           | 1.56              | 35000            | F0943 500_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 1.61            | 573.03  | 3108.0           | 1.39              | 35000            | F0943 560_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 1.44            | 637.88  | 3459.7           | 1.25              | 35000            | F0943 630_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 1.30            | 708.68  | 3843.7           | 1.12              | 35000            | F0943 710_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 1.14            | 807.14  | 4377.8           | 0.98              | 35000            | F0943 800_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 1.03            | 896.74  | 4863.7           | 0.89              | 35000            | F0943 900_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 0.92            | 1001.59 | 5432.4           | 0.79              | 35000            | F0943 10C_ M _ _ _ .55C - -                                                                                                                                                                | 217                             | 80            |
| 2.24            | 411.35  | 2231.0           | 3.59              | 43000            | F1043 400_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 2.01            | 457.90  | 2483.5           | 3.22              | 43000            | F1043 450_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 1.81            | 508.73  | 2759.2           | 2.90              | 43000            | F1043 500_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 1.63            | 565.64  | 3067.9           | 2.61              | 43000            | F1043 560_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 1.48            | 622.20  | 3374.7           | 2.37              | 43000            | F1043 630_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 1.29            | 714.97  | 3877.8           | 2.06              | 43000            | F1043 710_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 1.13            | 810.75  | 4397.3           | 1.82              | 43000            | F1043 800_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 1.03            | 894.25  | 4850.2           | 1.65              | 43000            | F1043 900_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 0.90            | 1024.10 | 5554.5           | 1.44              | 43000            | F1043 10C_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 0.81            | 1140.17 | 6184.0           | 1.29              | 43000            | F1043 11C_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 0.73            | 1256.39 | 6814.4           | 1.17              | 43000            | F1043 12C_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 0.66            | 1385.78 | 7516.2           | 1.06              | 43000            | F1043 14C_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 0.57            | 1601.19 | 8684.5           | 0.92              | 43000            | F1043 16C_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |
| 0.51            | 1794.35 | 9732.1           | 0.82              | 43000            | F1043 18C_ M _ _ _ .55C - -                                                                                                                                                                | 305                             | 80            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.75 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 240.57          | 5.90   | 29               | 2.17              | 1741             | F0223 5.0 M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 178.09          | 7.97   | 39               | 1.87              | 1858             | F0223 6.3 M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 156.57          | 9.07   | 45               | 1.75              | 1903             | F0223 9.0 M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 138.20          | 10.27  | 51               | 1.63              | 1946             | F0223 10. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 108.06          | 13.14  | 65               | 1.41              | 2040             | F0223 12. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 100.27          | 14.16  | 70               | 1.34              | 2065             | F0223 14. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 79.42           | 17.88  | 88               | 1.15              | 2147             | F0223 16. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 70.06           | 20.27  | 100              | 1.06              | 2200             | F0223 20. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 61.31           | 23.16  | 114              | 0.97              | 2246             | F0223 22. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 55.11           | 25.77  | 127              | 0.90              | 2286             | F0223 25. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
| 49.99           | 28.41  | 140              | 0.84              | 2314             | F0223 28. M _ _ _ _ .75A - -                                                                                                                                                               | 29                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 139.02          | 10.21  | 50               | 3.76              | 4360             | F0323 10. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 122.71          | 11.57  | 57               | 3.53              | 4410             | F0323 12. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 95.95           | 14.80  | 73               | 3.02              | 4543             | F0323 14. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 89.03           | 15.95  | 78               | 2.89              | 4580             | F0323 16. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 70.52           | 20.14  | 99               | 2.41              | 4689             | F0323 20. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 62.21           | 22.83  | 112              | 2.19              | 4859             | F0323 22. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 54.44           | 26.09  | 128              | 1.95              | 4984             | F0323 25. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 48.94           | 29.02  | 143              | 1.75              | 5000             | F0323 28. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 44.39           | 31.99  | 157              | 1.59              | 5000             | F0323 32. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 40.33           | 35.21  | 173              | 1.44              | 5000             | F0323 36. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 34.42           | 41.25  | 203              | 1.22              | 5000             | F0323 40. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
| 28.69           | 49.49  | 243              | 0.89              | 5000             | F0323 50. M _ _ _ _ .75A - -                                                                                                                                                               | 31                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 72.29           | 19.64  | 97               | 3.83              | 5715             | F0423 20. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 65.18           | 21.79  | 107              | 3.50              | 5854             | F0423 22. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 57.37           | 24.75  | 122              | 3.15              | 6013             | F0423 25. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 50.50           | 28.12  | 138              | 2.83              | 6324             | F0423 28. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 45.86           | 30.97  | 152              | 2.60              | 6400             | F0423 32. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 39.87           | 35.62  | 175              | 2.31              | 6400             | F0423 36. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 36.67           | 38.72  | 190              | 2.15              | 6400             | F0423 40. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 30.55           | 46.49  | 229              | 1.84              | 6400             | F0423 50. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 25.45           | 55.79  | 274              | 1.51              | 6400             | F0423 56. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 22.59           | 62.86  | 309              | 1.19              | 6400             | F0423 63. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
| 19.43           | 73.07  | 359              | 0.89              | 6400             | F0423 71. M _ _ _ _ .75A - -                                                                                                                                                               | 37                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 20.38           | 69.69  | 339              | 1.11              | 6400             | F0433 71. M _ _ _ _ .75A - -                                                                                                                                                               | 39                              | 80            |
| 17.97           | 79.00  | 385              | 1.03              | 6400             | F0433 80. M _ _ _ _ .75A - -                                                                                                                                                               | 39                              | 80            |
| 15.73           | 90.28  | 439              | 0.94              | 6400             | F0433 90. M _ _ _ _ .75A - -                                                                                                                                                               | 39                              | 80            |
| 14.14           | 100.43 | 489              | 0.86              | 6400             | F0433 100 M _ _ _ _ .75A - -                                                                                                                                                               | 39                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 49.44           | 28.72  | 141              | 3.94              | 5916             | F0523 28. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 46.39           | 30.61  | 151              | 3.73              | 6028             | F0523 32. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 39.14           | 36.28  | 178              | 3.23              | 6311             | F0523 36. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 36.66           | 38.74  | 190              | 3.05              | 6428             | F0523 40. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 29.54           | 48.07  | 236              | 2.54              | 6797             | F0523 50. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 25.05           | 56.68  | 279              | 2.20              | 7072             | F0523 56. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 22.88           | 62.06  | 305              | 2.04              | 7218             | F0523 63. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 18.67           | 76.06  | 374              | 1.71              | 7569             | F0523 71. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 16.75           | 84.78  | 417              | 1.52              | 7898             | F0523 90. M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
| 14.94           | 95.08  | 468              | 1.03              | 8693             | F0523 100 M _ _ _ _ .75A - -                                                                                                                                                               | 45                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 13.81           | 102.79 | 500              | 1.14              | 7726             | F0533 100 M _ _ _ _ .75A - -                                                                                                                                                               | 48                              | 80            |
| 12.54           | 113.20 | 551              | 1.06              | 7901             | F0533 112 M _ _ _ _ .75A - -                                                                                                                                                               | 48                              | 80            |
| 10.91           | 130.20 | 634              | 0.97              | 8198             | F0533 125 M _ _ _ _ .75A - -                                                                                                                                                               | 48                              | 80            |
| 10.03           | 141.55 | 689              | 0.92              | 8353             | F0533 160 M _ _ _ _ .75A - -                                                                                                                                                               | 48                              | 80            |
| 8.36            | 169.93 | 827              | 0.84              | 8538             | F0533 180 M _ _ _ _ .75A - -                                                                                                                                                               | 48                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 29.72           | 47.78  | 235              | 3.83              | 14500            | F0623 50. M _ _ _ _ .75A - -                                                                                                                                                               | 60                              | 80            |
| 25.21           | 56.34  | 277              | 3.25              | 14500            | F0623 56. M _ _ _ _ .75A - -                                                                                                                                                               | 60                              | 80            |
| 23.02           | 61.69  | 303              | 2.97              | 14500            | F0623 63. M _ _ _ _ .75A - -                                                                                                                                                               | 60                              | 80            |
| 18.78           | 75.60  | 372              | 2.36              | 14500            | F0623 71. M _ _ _ _ .75A - -                                                                                                                                                               | 60                              | 80            |
| 16.85           | 84.26  | 414              | 1.61              | 14500            | F0623 90. M _ _ _ _ .75A - -                                                                                                                                                               | 60                              | 80            |
| 15.03           | 94.50  | 465              | 1.04              | 14500            | F0623 100 M _ _ _ _ .75A - -                                                                                                                                                               | 60                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 13.90           | 102.17 | 497              | 1.81              | 14500            | F0633 100 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
| 12.62           | 112.51 | 548              | 1.64              | 14500            | F0633 112 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
| 10.97           | 129.41 | 630              | 1.43              | 14500            | F0633 125 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
| 10.09           | 140.70 | 685              | 1.31              | 14500            | F0633 160 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
| 8.41            | 168.90 | 822              | 1.09              | 14500            | F0633 180 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
| 7.01            | 202.68 | 987              | 0.91              | 14500            | F0633 200 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
| 6.22            | 228.38 | 1112             | 0.81              | 14500            | F0633 225 M _ _ _ _ .75A - -                                                                                                                                                               | 62                              | 80            |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 16.75           | 84.78  | 417              | 2.93              | 16000            | F0723 90. M _ _ _ _ .75A - -                                                                                                                                                               | 84                              | 80            |
| 15.07           | 94.20  | 463              | 2.25              | 16000            | F0723 100 M _ _ _ _ .75A - -                                                                                                                                                               | 84                              | 80            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.75 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 17.98           | 78.99   | 384              | 3.62              | 16000            | F0733 80_ M _ _ _ .75A - -                                                                                                                                                                 | 88                              | 80            |
| 15.46           | 91.87   | 447              | 3.26              | 16000            | F0733 90_ M _ _ _ .75A - -                                                                                                                                                                 | 88                              | 80            |
| 13.81           | 102.79  | 500              | 3.12              | 16000            | F0733 100_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 12.96           | 109.56  | 533              | 2.93              | 16000            | F0733 112_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 10.94           | 129.84  | 632              | 2.56              | 16000            | F0733 125_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 10.24           | 138.63  | 675              | 2.45              | 16000            | F0733 160_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 8.25            | 172.03  | 837              | 2.03              | 16000            | F0733 180_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 7.00            | 202.86  | 987              | 1.72              | 16000            | F0733 200_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 6.39            | 222.12  | 1081             | 1.57              | 16000            | F0733 225_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 5.22            | 272.22  | 1325             | 1.28              | 16000            | F0733 280_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 4.68            | 303.41  | 1477             | 1.15              | 16000            | F0733 320_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 4.17            | 340.28  | 1656             | 1.03              | 16000            | F0733 360_ M _ _ _ .75A - -                                                                                                                                                                | 88                              | 80            |
| 8.19            | 173.46  | 844              | 3.61              | 18000            | F0833 180_ M _ _ _ .75A - -                                                                                                                                                                | 127                             | 80            |
| 7.02            | 202.29  | 985              | 3.10              | 18000            | F0833 200_ M _ _ _ .75A - -                                                                                                                                                                | 127                             | 80            |
| 6.39            | 222.21  | 1082             | 2.82              | 18000            | F0833 225_ M _ _ _ .75A - -                                                                                                                                                                | 127                             | 80            |
| 5.21            | 272.31  | 1325             | 2.30              | 18000            | F0833 280_ M _ _ _ .75A - -                                                                                                                                                                | 127                             | 80            |
| 4.78            | 297.37  | 1447             | 2.11              | 18000            | F0833 320_ M _ _ _ .75A - -                                                                                                                                                                | 127                             | 80            |
| 4.15            | 342.42  | 1667             | 1.82              | 18000            | F0833 360_ M _ _ _ .75A - -                                                                                                                                                                | 127                             | 80            |
| 3.65            | 388.52  | 1862             | 1.64              | 18000            | F0843 400_ M _ _ _ .75A - -                                                                                                                                                                | 144                             | 80            |
| 3.23            | 439.55  | 2106             | 1.45              | 18000            | F0843 450_ M _ _ _ .75A - -                                                                                                                                                                | 144                             | 80            |
| 2.86            | 496.15  | 2377             | 1.28              | 18000            | F0843 500_ M _ _ _ .75A - -                                                                                                                                                                | 144                             | 80            |
| 2.46            | 577.06  | 2765             | 1.10              | 18000            | F0843 560_ M _ _ _ .75A - -                                                                                                                                                                | 144                             | 80            |
| 2.36            | 601.45  | 2882             | 1.06              | 18000            | F0843 630_ M _ _ _ .75A - -                                                                                                                                                                | 144                             | 80            |
| 2.02            | 701.40  | 3361             | 0.91              | 18000            | F0843 710_ M _ _ _ .75A - -                                                                                                                                                                | 144                             | 80            |
| 5.07            | 279.95  | 1363             | 3.30              | 35000            | F0933 280_ M _ _ _ .75A - -                                                                                                                                                                | 201                             | 80            |
| 4.64            | 305.71  | 1488             | 3.02              | 35000            | F0933 320_ M _ _ _ .75A - -                                                                                                                                                                | 201                             | 80            |
| 4.03            | 352.02  | 1713             | 2.63              | 35000            | F0933 360_ M _ _ _ .75A - -                                                                                                                                                                | 201                             | 80            |
| 3.44            | 413.16  | 1980             | 2.27              | 35000            | F0943 400_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 3.09            | 459.91  | 2204             | 2.04              | 35000            | F0943 450_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 2.78            | 510.96  | 2448             | 1.84              | 35000            | F0943 500_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 2.48            | 573.03  | 2746             | 1.64              | 35000            | F0943 560_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 2.23            | 637.88  | 3057             | 1.47              | 35000            | F0943 630_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 2.00            | 708.68  | 3396             | 1.33              | 35000            | F0943 710_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 1.76            | 807.14  | 3868             | 1.16              | 35000            | F0943 800_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 1.58            | 896.74  | 4297             | 1.05              | 35000            | F0943 900_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 1.42            | 1001.59 | 4799             | 0.94              | 35000            | F0943 10C_ M _ _ _ .75A - -                                                                                                                                                                | 217                             | 80            |
| 3.10            | 457.90  | 2194             | 3.65              | 43000            | F1043 450_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 2.79            | 508.73  | 2438             | 3.28              | 43000            | F1043 500_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 2.51            | 565.64  | 2710             | 2.95              | 43000            | F1043 560_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 2.28            | 622.20  | 2981             | 2.68              | 43000            | F1043 630_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.99            | 714.97  | 3426             | 2.34              | 43000            | F1043 710_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.75            | 810.75  | 3885             | 2.06              | 43000            | F1043 800_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.59            | 894.25  | 4285             | 1.87              | 43000            | F1043 900_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.39            | 1024.10 | 4907             | 1.63              | 43000            | F1043 10C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.25            | 1140.17 | 5463             | 1.46              | 43000            | F1043 11C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.13            | 1256.39 | 6020             | 1.33              | 43000            | F1043 12C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 1.02            | 1385.78 | 6640             | 1.20              | 43000            | F1043 14C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 0.89            | 1601.19 | 7673             | 1.04              | 43000            | F1043 16C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 0.79            | 1794.35 | 8598             | 0.93              | 43000            | F1043 18C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |
| 0.70            | 2025.13 | 9704             | 0.82              | 43000            | F1043 20C_ M _ _ _ .75A - -                                                                                                                                                                | 305                             | 80            |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.75 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 157.6           | 5.90   | 44               | 1.53              | 1819             | F0223 5.0 M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 116.6           | 7.97   | 60               | 1.32              | 1674             | F0223 6.3 M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 102.5           | 9.07   | 68               | 1.23              | 1715             | F0223 9.0 M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 90.51           | 10.27  | 77               | 1.14              | 1748             | F0223 10. M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 70.77           | 13.14  | 99               | 0.98              | 1831             | F0223 12. M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 65.67           | 14.16  | 106              | 0.94              | 1855             | F0223 14. M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 52.02           | 17.88  | 134              | 0.82              | 1940             | F0223 16. M .75C --                                                                                                                                                                        | 37                              | 90S           |
| 139.90          | 6.65   | 50               | 3.35              | 4439             | F0323 6.3 M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 103.56          | 8.98   | 67               | 2.88              | 4586             | F0323 9.0 M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 91.05           | 10.21  | 77               | 2.67              | 4660             | F0323 10. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 80.37           | 11.57  | 87               | 2.49              | 4718             | F0323 12. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 62.84           | 14.80  | 111              | 2.01              | 4930             | F0323 14. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 58.31           | 15.95  | 120              | 1.94              | 4963             | F0323 16. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 46.19           | 20.14  | 151              | 1.58              | 5000             | F0323 20. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 40.74           | 22.83  | 171              | 1.44              | 5000             | F0323 22. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 35.65           | 26.09  | 196              | 1.28              | 5000             | F0323 25. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 32.05           | 29.02  | 218              | 1.15              | 5000             | F0323 28. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 29.07           | 31.99  | 240              | 1.04              | 5000             | F0323 32. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 26.41           | 35.21  | 264              | 0.95              | 4917             | F0323 36. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 22.55           | 41.25  | 310              | 0.81              | 4689             | F0323 40. M .75C --                                                                                                                                                                        | 39                              | 90S           |
| 66.01           | 14.09  | 106              | 3.54              | 5813             | F0423 14. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 58.11           | 16.01  | 120              | 3.18              | 5970             | F0423 16. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 47.35           | 19.64  | 147              | 2.67              | 6231             | F0423 20. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 42.69           | 21.79  | 164              | 2.45              | 6368             | F0423 22. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 37.58           | 24.75  | 186              | 2.19              | 6400             | F0423 25. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 33.07           | 28.12  | 211              | 1.94              | 6400             | F0423 28. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 30.03           | 30.97  | 233              | 1.81              | 6400             | F0423 32. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 26.11           | 35.62  | 267              | 1.57              | 6400             | F0423 36. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 24.02           | 38.72  | 291              | 1.44              | 6400             | F0423 40. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 20.01           | 46.49  | 349              | 1.20              | 6400             | F0423 50. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 16.67           | 55.79  | 419              | 1.00              | 6105             | F0423 56. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 14.80           | 62.86  | 472              | 0.81              | 6006             | F0423 63. M .75C --                                                                                                                                                                        | 45                              | 90S           |
| 48.52           | 19.17  | 144              | 3.88              | 5901             | F0523 20. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 42.14           | 22.07  | 166              | 3.43              | 6153             | F0523 22. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 36.23           | 25.67  | 193              | 3.01              | 6405             | F0523 25. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 32.38           | 28.72  | 216              | 2.74              | 6593             | F0523 28. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 30.38           | 30.61  | 230              | 2.60              | 6698             | F0523 32. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 25.63           | 36.28  | 272              | 2.25              | 6986             | F0523 36. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 24.01           | 38.74  | 291              | 2.12              | 7105             | F0523 40. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 19.35           | 48.07  | 361              | 1.76              | 7459             | F0523 50. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 16.41           | 56.68  | 426              | 1.53              | 7743             | F0523 56. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 14.98           | 62.06  | 466              | 1.42              | 7896             | F0523 63. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 12.23           | 76.06  | 571              | 1.19              | 8233             | F0523 71. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 10.97           | 84.78  | 637              | 0.99              | 8496             | F0523 90. M .75C --                                                                                                                                                                        | 54                              | 90S           |
| 9.05            | 102.79 | 764              | 0.92              | 8280             | F0533 100 M .75C --                                                                                                                                                                        | 57                              | 90S           |
| 8.22            | 113.20 | 841              | 0.83              | 8044             | F0533 112 M .75C --                                                                                                                                                                        | 57                              | 90S           |
| 30.57           | 30.43  | 228              | 3.94              | 14500            | F0623 32. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 25.79           | 36.06  | 271              | 3.32              | 14500            | F0623 36. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 24.16           | 38.50  | 289              | 3.11              | 14500            | F0623 40. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 19.47           | 47.78  | 359              | 2.51              | 14500            | F0623 50. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 16.51           | 56.34  | 423              | 2.13              | 14500            | F0623 56. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 15.08           | 61.69  | 463              | 1.94              | 14500            | F0623 63. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 12.30           | 75.60  | 568              | 1.54              | 14500            | F0623 71. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 11.04           | 84.26  | 633              | 1.05              | 14500            | F0623 90. M .75C --                                                                                                                                                                        | 69                              | 90S           |
| 9.10            | 102.17 | 759              | 1.19              | 14500            | F0633 100 M .75C --                                                                                                                                                                        | 71                              | 90S           |
| 8.27            | 112.51 | 836              | 1.08              | 14500            | F0633 112 M .75C --                                                                                                                                                                        | 71                              | 90S           |
| 7.19            | 129.41 | 962              | 0.94              | 14500            | F0633 125 M .75C --                                                                                                                                                                        | 71                              | 90S           |
| 6.61            | 140.70 | 1046             | 0.86              | 14500            | F0633 160 M .75C --                                                                                                                                                                        | 71                              | 90S           |
| 15.15           | 61.40  | 461              | 3.69              | 16000            | F0723 63. M .75C --                                                                                                                                                                        | 92                              | 90S           |
| 12.62           | 73.68  | 553              | 2.82              | 16000            | F0723 71. M .75C --                                                                                                                                                                        | 92                              | 90S           |
| 10.97           | 84.78  | 637              | 1.92              | 16000            | F0723 90. M .75C --                                                                                                                                                                        | 92                              | 90S           |
| 9.87            | 94.20  | 707              | 1.47              | 16000            | F0723 100 M .75C --                                                                                                                                                                        | 92                              | 90S           |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**0.75 kW**

6 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 11.77           | 78.99   | 587              | 2.57              | 16000            | F0733 80_ M _ _ _ .75C - -                                                               | 97                              | 90S           |
| 10.12           | 91.87   | 683              | 2.33              | 16000            | F0733 90_ M _ _ _ .75C - -                                                               | 97                              | 90S           |
| 9.05            | 102.79  | 764              | 2.23              | 16000            | F0733 100_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 8.49            | 109.56  | 814              | 2.09              | 16000            | F0733 112_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 7.16            | 129.84  | 965              | 1.76              | 16000            | F0733 125_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 6.71            | 138.63  | 1030             | 1.65              | 16000            | F0733 160_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 5.41            | 172.03  | 1279             | 1.33              | 16000            | F0733 180_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 4.58            | 202.86  | 1508             | 1.13              | 16000            | F0733 200_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 4.19            | 222.12  | 1651             | 1.03              | 16000            | F0733 225_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 3.42            | 272.22  | 2023             | 0.84              | 16000            | F0733 280_ M _ _ _ .75C - -                                                              | 97                              | 90S           |
| 9.82            | 94.71   | 711              | 3.70              | 18000            | F0823 100_ M _ _ _ .75C - -                                                              | 130                             | 90S           |
| 9.08            | 102.39  | 761              | 4.01              | 18000            | F0833 100_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 8.30            | 112.05  | 833              | 3.66              | 18000            | F0833 112_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 7.34            | 126.77  | 942              | 3.24              | 18000            | F0833 125_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 6.50            | 143.09  | 1063             | 2.87              | 18000            | F0833 160_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 5.36            | 173.46  | 1289             | 2.37              | 18000            | F0833 180_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 4.60            | 202.29  | 1503             | 2.03              | 18000            | F0833 200_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 4.19            | 222.21  | 1651             | 1.85              | 18000            | F0833 225_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 3.42            | 272.31  | 2024             | 1.51              | 18000            | F0833 280_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 3.13            | 297.37  | 2210             | 1.38              | 18000            | F0833 320_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 2.72            | 342.42  | 2545             | 1.20              | 18000            | F0833 360_ M _ _ _ .75C - -                                                              | 135                             | 90S           |
| 2.39            | 388.52  | 2843             | 1.07              | 18000            | F0843 400_ M _ _ _ .75C - -                                                              | 152                             | 90S           |
| 2.12            | 439.55  | 3216             | 0.95              | 18000            | F0843 450_ M _ _ _ .75C - -                                                              | 152                             | 90S           |
| 1.87            | 496.15  | 3630             | 0.84              | 18000            | F0843 500_ M _ _ _ .75C - -                                                              | 152                             | 90S           |
| 5.22            | 178.33  | 1325             | 3.25              | 35000            | F0933 180_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 4.47            | 207.96  | 1546             | 2.79              | 35000            | F0933 200_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 4.07            | 228.44  | 1698             | 2.54              | 35000            | F0933 225_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 3.32            | 279.95  | 2081             | 2.07              | 35000            | F0933 280_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 3.04            | 305.71  | 2272             | 1.90              | 35000            | F0933 320_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 2.64            | 352.02  | 2616             | 1.65              | 35000            | F0933 360_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 2.25            | 413.16  | 3071             | 1.40              | 35000            | F0943 400_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 2.02            | 459.91  | 3418             | 1.26              | 35000            | F0943 450_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 1.82            | 510.96  | 3798             | 1.13              | 35000            | F0943 500_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 1.62            | 573.03  | 4259             | 1.01              | 35000            | F0943 560_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 1.46            | 637.88  | 4741             | 0.91              | 35000            | F0943 630_ M _ _ _ .75C - -                                                              | 209                             | 90S           |
| 3.34            | 278.26  | 2068             | 3.87              | 43000            | F1033 280_ M _ _ _ .75C - -                                                              | 298                             | 90S           |
| 2.95            | 314.94  | 2341             | 3.42              | 43000            | F1033 320_ M _ _ _ .75C - -                                                              | 298                             | 90S           |
| 2.63            | 354.14  | 2632             | 3.04              | 43000            | F1033 360_ M _ _ _ .75C - -                                                              | 298                             | 90S           |
| 2.26            | 411.35  | 3010             | 2.66              | 43000            | F1043 400_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 2.03            | 457.90  | 3350             | 2.39              | 43000            | F1043 450_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 1.83            | 508.73  | 3722             | 2.15              | 43000            | F1043 500_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 1.64            | 565.64  | 4139             | 1.93              | 43000            | F1043 560_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 1.49            | 622.20  | 4552             | 1.76              | 43000            | F1043 630_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 1.30            | 714.97  | 5231             | 1.53              | 43000            | F1043 710_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 1.15            | 810.75  | 5932             | 1.35              | 43000            | F1043 800_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 1.04            | 894.25  | 6543             | 1.22              | 43000            | F1043 900_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 0.91            | 1024.10 | 7493             | 1.07              | 43000            | F1043 10C_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 0.82            | 1140.17 | 8342             | 0.96              | 43000            | F1043 11C_ M _ _ _ .75C - -                                                              | 313                             | 90S           |
| 0.74            | 1256.39 | 9192             | 0.87              | 43000            | F1043 12C_ M _ _ _ .75C - -                                                              | 313                             | 90S           |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.1 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 242.27          | 5.90   | 42               | 1.49              | 1555             | F0223 5.0 M _ _ _ _ 1.1A _ _                                                             | 37                              | 90S           |
| 179.34          | 7.97   | 57               | 1.28              | 1660             | F0223 6.3 M _ _ _ _ 1.1A _ _                                                             | 37                              | 90S           |
| 157.67          | 9.07   | 65               | 1.20              | 1700             | F0223 9.0 M _ _ _ _ 1.1A _ _                                                             | 37                              | 90S           |
| 139.17          | 10.27  | 74               | 1.12              | 1739             | F0223 10. M _ _ _ _ 1.1A _ _                                                             | 37                              | 90S           |
| 108.83          | 13.14  | 94               | 0.97              | 1822             | F0223 12. M _ _ _ _ 1.1A _ _                                                             | 37                              | 90S           |
| 100.98          | 14.16  | 101              | 0.92              | 1844             | F0223 14. M _ _ _ _ 1.1A _ _                                                             | 37                              | 90S           |
| 215.11          | 6.65   | 48               | 3.23              | 3726             | F0323 6.3 M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 159.24          | 8.98   | 64               | 2.78              | 3834             | F0323 9.0 M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 140.00          | 10.21  | 73               | 2.58              | 3895             | F0323 10. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 123.57          | 11.57  | 83               | 2.43              | 3939             | F0323 12. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 96.63           | 14.80  | 106              | 2.08              | 4058             | F0323 14. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 89.66           | 15.95  | 114              | 1.99              | 4092             | F0323 16. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 71.02           | 20.14  | 144              | 1.66              | 4189             | F0323 20. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 62.64           | 22.83  | 164              | 1.50              | 4341             | F0323 22. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 54.82           | 26.09  | 187              | 1.34              | 4452             | F0323 25. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 49.28           | 29.02  | 208              | 1.20              | 4556             | F0323 28. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 44.70           | 31.99  | 229              | 1.09              | 4650             | F0323 32. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 40.62           | 35.21  | 252              | 0.99              | 4728             | F0323 36. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 34.67           | 41.25  | 295              | 0.84              | 4743             | F0323 40. M _ _ _ _ 1.1A _ _                                                             | 39                              | 90S           |
| 101.50          | 14.09  | 101              | 3.49              | 4728             | F0423 14. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 89.35           | 16.01  | 115              | 3.13              | 4873             | F0423 16. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 72.80           | 19.64  | 141              | 2.63              | 5106             | F0423 20. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 65.64           | 21.79  | 156              | 2.40              | 5230             | F0423 22. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 57.78           | 24.75  | 177              | 2.17              | 5372             | F0423 25. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 50.85           | 28.12  | 201              | 1.94              | 5649             | F0423 28. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 46.18           | 30.97  | 222              | 1.79              | 5819             | F0423 32. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 40.15           | 35.62  | 255              | 1.59              | 5881             | F0423 36. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 36.93           | 38.72  | 277              | 1.48              | 6218             | F0423 40. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 30.76           | 46.49  | 333              | 1.26              | 6326             | F0423 50. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 25.63           | 55.79  | 400              | 1.04              | 6331             | F0423 56. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 22.75           | 62.86  | 450              | 0.82              | 6022             | F0423 63. M _ _ _ _ 1.1A _ _                                                             | 45                              | 90S           |
| 74.60           | 19.17  | 137              | 3.83              | 4668             | F0523 20. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 64.79           | 22.07  | 158              | 3.40              | 4878             | F0523 22. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 55.71           | 25.67  | 184              | 2.98              | 5120             | F0523 25. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 49.79           | 28.72  | 206              | 2.71              | 5285             | F0523 28. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 46.71           | 30.61  | 219              | 2.56              | 5385             | F0523 32. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 39.42           | 36.28  | 260              | 2.22              | 5638             | F0523 36. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 36.92           | 38.74  | 277              | 2.09              | 5742             | F0523 40. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 29.75           | 48.07  | 344              | 1.74              | 6072             | F0523 50. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 25.23           | 56.68  | 406              | 1.51              | 6317             | F0523 56. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 23.04           | 62.06  | 445              | 1.40              | 6448             | F0523 63. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 18.80           | 76.06  | 545              | 1.18              | 6762             | F0523 71. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 16.87           | 84.78  | 607              | 1.04              | 7056             | F0523 90. M _ _ _ _ 1.1A _ _                                                             | 54                              | 90S           |
| 39.66           | 36.06  | 258              | 3.48              | 13307            | F0623 36. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 37.14           | 38.50  | 276              | 3.26              | 13518            | F0623 40. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 29.93           | 47.78  | 342              | 2.63              | 14168            | F0623 50. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 25.38           | 56.34  | 404              | 2.23              | 14500            | F0623 56. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 23.18           | 61.69  | 442              | 2.04              | 14500            | F0623 63. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 18.92           | 75.60  | 541              | 1.62              | 14500            | F0623 71. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 16.97           | 84.26  | 604              | 1.10              | 14500            | F0623 90. M _ _ _ _ 1.1A _ _                                                             | 69                              | 90S           |
| 14.00           | 102.17 | 724              | 1.24              | 14500            | F0633 100 M _ _ _ _ 1.1A _ _                                                             | 71                              | 90S           |
| 12.71           | 112.51 | 798              | 1.13              | 14500            | F0633 112 M _ _ _ _ 1.1A _ _                                                             | 71                              | 90S           |
| 11.05           | 129.41 | 917              | 0.98              | 14500            | F0633 125 M _ _ _ _ 1.1A _ _                                                             | 71                              | 90S           |
| 10.16           | 140.70 | 997              | 0.90              | 14500            | F0633 160 M _ _ _ _ 1.1A _ _                                                             | 71                              | 90S           |
| 23.29           | 61.40  | 440              | 3.87              | 16000            | F0723 63. M _ _ _ _ 1.1A _ _                                                             | 92                              | 90S           |
| 19.41           | 73.68  | 528              | 2.95              | 16000            | F0723 71. M _ _ _ _ 1.1A _ _                                                             | 92                              | 90S           |
| 16.87           | 84.78  | 607              | 2.01              | 16000            | F0723 90. M _ _ _ _ 1.1A _ _                                                             | 92                              | 90S           |
| 15.18           | 94.20  | 675              | 1.54              | 16000            | F0723 100 M _ _ _ _ 1.1A _ _                                                             | 92                              | 90S           |
| 18.10           | 78.99  | 560              | 2.48              | 16000            | F0733 80. M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 15.56           | 91.87  | 651              | 2.24              | 16000            | F0733 90. M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 13.91           | 102.79 | 729              | 2.14              | 16000            | F0733 100 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 13.05           | 109.56 | 777              | 2.01              | 16000            | F0733 112 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 11.01           | 129.84 | 920              | 1.76              | 16000            | F0733 125 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 10.32           | 138.63 | 983              | 1.68              | 16000            | F0733 160 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 8.31            | 172.03 | 1220             | 1.39              | 16000            | F0733 180 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 7.05            | 202.86 | 1438             | 1.18              | 16000            | F0733 200 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 6.44            | 222.12 | 1575             | 1.08              | 16000            | F0733 225 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |
| 5.25            | 272.22 | 1930             | 0.88              | 16000            | F0733 280 M _ _ _ _ 1.1A _ _                                                             | 97                              | 90S           |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.1 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 12.76           | 112.05  | 794              | 3.84              | 18000            | F0833 112 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 11.28           | 126.77  | 899              | 3.39              | 18000            | F0833 125 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 9.99            | 143.09  | 1014             | 3.01              | 18000            | F0833 160 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 8.24            | 173.46  | 1230             | 2.48              | 18000            | F0833 180 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 7.07            | 202.29  | 1434             | 2.13              | 18000            | F0833 200 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 6.44            | 222.21  | 1575             | 1.94              | 18000            | F0833 225 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 5.25            | 272.31  | 1930             | 1.58              | 18000            | F0833 280 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 4.81            | 297.37  | 2108             | 1.45              | 18000            | F0833 320 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 4.18            | 342.42  | 2427             | 1.25              | 18000            | F0833 360 M _ _ _ _ 1.1A - -                                                             | 135                             | 90S           |
| 3.68            | 388.52  | 2711             | 1.12              | 18000            | F0843 400 M _ _ _ _ 1.1A - -                                                             | 152                             | 90S           |
| 3.25            | 439.55  | 3068             | 0.99              | 18000            | F0843 450 M _ _ _ _ 1.1A - -                                                             | 152                             | 90S           |
| 2.88            | 496.15  | 3463             | 0.88              | 18000            | F0843 500 M _ _ _ _ 1.1A - -                                                             | 152                             | 90S           |
| 8.02            | 178.33  | 1264             | 3.56              | 35000            | F0933 180 M _ _ _ _ 1.1A - -                                                             | 209                             | 90S           |
| 6.88            | 207.96  | 1474             | 3.05              | 35000            | F0933 200 M _ _ _ _ 1.1A - -                                                             | 209                             | 90S           |
| 6.26            | 228.44  | 1619             | 2.78              | 35000            | F0933 225 M _ _ _ _ 1.1A - -                                                             | 209                             | 90S           |
| 5.11            | 279.95  | 1985             | 2.27              | 35000            | F0933 280 M _ _ _ _ 1.1A - -                                                             | 209                             | 90S           |
| 4.68            | 305.71  | 2167             | 2.08              | 35000            | F0933 320 M _ _ _ _ 1.1A - -                                                             | 209                             | 90S           |
| 4.06            | 352.02  | 2496             | 1.80              | 35000            | F0933 360 M _ _ _ _ 1.1A - -                                                             | 209                             | 90S           |
| 3.46            | 413.16  | 2883             | 1.56              | 35000            | F0943 400 M _ _ _ _ 1.1A - -                                                             | 225                             | 90S           |
| 3.11            | 459.91  | 3210             | 1.40              | 35000            | F0943 450 M _ _ _ _ 1.1A - -                                                             | 225                             | 90S           |
| 2.80            | 510.96  | 3566             | 1.26              | 35000            | F0943 500 M _ _ _ _ 1.1A - -                                                             | 225                             | 90S           |
| 2.50            | 573.03  | 3999             | 1.13              | 35000            | F0943 560 M _ _ _ _ 1.1A - -                                                             | 225                             | 90S           |
| 2.24            | 637.88  | 4452             | 1.01              | 35000            | F0943 630 M _ _ _ _ 1.1A - -                                                             | 225                             | 90S           |
| 2.02            | 708.68  | 4946             | 0.91              | 35000            | F0943 710 M _ _ _ _ 1.1A - -                                                             | 225                             | 90S           |
| 4.54            | 314.94  | 2233             | 3.58              | 43000            | F1033 320 M _ _ _ _ 1.1A - -                                                             | 298                             | 90S           |
| 4.04            | 354.14  | 2511             | 3.19              | 43000            | F1033 360 M _ _ _ _ 1.1A - -                                                             | 298                             | 90S           |
| 3.48            | 411.35  | 2871             | 2.79              | 43000            | F1043 400 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 3.12            | 457.90  | 3196             | 2.50              | 43000            | F1043 450 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 2.81            | 508.73  | 3550             | 2.25              | 43000            | F1043 500 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 2.53            | 565.64  | 3948             | 2.03              | 43000            | F1043 560 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 2.30            | 622.20  | 4342             | 1.84              | 43000            | F1043 630 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 2.00            | 714.97  | 4990             | 1.60              | 43000            | F1043 710 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 1.76            | 810.75  | 5658             | 1.41              | 43000            | F1043 800 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 1.60            | 894.25  | 6241             | 1.28              | 43000            | F1043 900 M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 1.40            | 1024.10 | 7147             | 1.12              | 43000            | F1043 10C M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 1.25            | 1140.17 | 7957             | 1.01              | 43000            | F1043 11C M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 1.14            | 1256.39 | 8768             | 0.91              | 43000            | F1043 12C M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |
| 1.03            | 1385.78 | 9671             | 0.83              | 43000            | F1043 14C M _ _ _ _ 1.1A - -                                                             | 313                             | 90S           |

**1.1 kW**

6 POLE

|        |       |     |      |      |                              |    |     |
|--------|-------|-----|------|------|------------------------------|----|-----|
| 157.56 | 5.90  | 65  | 1.05 | 1622 | F0223 5.0 M _ _ _ _ 1.1C - - | 39 | 90L |
| 116.63 | 7.97  | 88  | 0.90 | 1492 | F0223 6.3 M _ _ _ _ 1.1C - - | 39 | 90L |
| 102.54 | 9.07  | 100 | 0.84 | 1528 | F0223 9.0 M _ _ _ _ 1.1C - - | 39 | 90L |
| 139.90 | 6.65  | 73  | 2.28 | 3957 | F0323 6.3 M _ _ _ _ 1.1C - - | 41 | 90L |
| 103.56 | 8.98  | 99  | 1.96 | 4088 | F0323 9.0 M _ _ _ _ 1.1C - - | 41 | 90L |
| 91.05  | 10.21 | 112 | 1.82 | 4154 | F0323 10. M _ _ _ _ 1.1C - - | 41 | 90L |
| 80.37  | 11.57 | 127 | 1.69 | 4206 | F0323 12. M _ _ _ _ 1.1C - - | 41 | 90L |
| 62.84  | 14.80 | 163 | 1.37 | 4394 | F0323 14. M _ _ _ _ 1.1C - - | 41 | 90L |
| 58.31  | 15.95 | 176 | 1.32 | 4424 | F0323 16. M _ _ _ _ 1.1C - - | 41 | 90L |
| 46.19  | 20.14 | 222 | 1.08 | 4602 | F0323 20. M _ _ _ _ 1.1C - - | 41 | 90L |
| 40.74  | 22.83 | 251 | 0.98 | 4699 | F0323 22. M _ _ _ _ 1.1C - - | 41 | 90L |
| 35.65  | 26.09 | 287 | 0.87 | 4796 | F0323 25. M _ _ _ _ 1.1C - - | 41 | 90L |
| 147.15 | 6.32  | 70  | 3.95 | 4742 | F0423 6.3 M _ _ _ _ 1.1C - - | 47 | 90L |
| 104.91 | 8.86  | 98  | 3.39 | 4789 | F0423 9.0 M _ _ _ _ 1.1C - - | 47 | 90L |
| 95.21  | 9.77  | 108 | 3.23 | 4807 | F0423 10. M _ _ _ _ 1.1C - - | 47 | 90L |
| 83.84  | 11.09 | 122 | 2.96 | 4904 | F0423 12. M _ _ _ _ 1.1C - - | 47 | 90L |
| 66.01  | 14.09 | 155 | 2.41 | 5182 | F0423 14. M _ _ _ _ 1.1C - - | 47 | 90L |
| 58.11  | 16.01 | 176 | 2.17 | 5322 | F0423 16. M _ _ _ _ 1.1C - - | 47 | 90L |
| 47.35  | 19.64 | 216 | 1.82 | 5554 | F0423 20. M _ _ _ _ 1.1C - - | 47 | 90L |
| 42.69  | 21.79 | 240 | 1.67 | 5677 | F0423 22. M _ _ _ _ 1.1C - - | 47 | 90L |
| 37.58  | 24.75 | 273 | 1.49 | 5819 | F0423 25. M _ _ _ _ 1.1C - - | 47 | 90L |
| 33.07  | 28.12 | 310 | 1.32 | 6277 | F0423 28. M _ _ _ _ 1.1C - - | 47 | 90L |
| 30.03  | 30.97 | 341 | 1.23 | 6400 | F0423 32. M _ _ _ _ 1.1C - - | 47 | 90L |
| 26.11  | 35.62 | 392 | 1.07 | 6400 | F0423 36. M _ _ _ _ 1.1C - - | 47 | 90L |
| 24.02  | 38.72 | 426 | 0.98 | 6400 | F0423 40. M _ _ _ _ 1.1C - - | 47 | 90L |
| 20.01  | 46.49 | 512 | 0.82 | 6400 | F0423 50. M _ _ _ _ 1.1C - - | 47 | 90L |

**NOTE**

Other output speeds  
are available using  
2 and 8 pole motors.  
Consult Application  
Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.1 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 65.59           | 14.18  | 156              | 3.42              | 4816             | F0523 14. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 57.86           | 16.07  | 177              | 3.07              | 5000             | F0523 16. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 48.52           | 19.17  | 211              | 2.64              | 5261             | F0523 20. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 42.14           | 22.07  | 243              | 2.34              | 5485             | F0523 22. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 36.23           | 25.67  | 283              | 2.06              | 5710             | F0523 25. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 32.38           | 28.72  | 316              | 1.87              | 5877             | F0523 28. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 30.38           | 30.61  | 337              | 1.77              | 5971             | F0523 32. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 25.63           | 36.28  | 400              | 1.53              | 6228             | F0523 36. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 24.01           | 38.74  | 427              | 1.45              | 6334             | F0523 40. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 19.35           | 48.07  | 529              | 1.20              | 6649             | F0523 50. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 16.41           | 56.68  | 624              | 1.05              | 6903             | F0523 56. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 14.98           | 62.06  | 684              | 0.97              | 7039             | F0523 63. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 12.23           | 76.06  | 838              | 0.81              | 7340             | F0523 71. M _ _ _ _ 1.1C - -                                                             | 56                              | 90L           |
| 48.81           | 19.05  | 210              | 4.29              | 12522            | F0623 20. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 42.39           | 21.94  | 242              | 3.10              | 13587            | F0623 22. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 36.45           | 25.52  | 281              | 3.01              | 13663            | F0623 25. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 32.58           | 28.55  | 314              | 2.82              | 13791            | F0623 28. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 30.57           | 30.43  | 335              | 2.69              | 13988            | F0623 32. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 25.79           | 36.06  | 397              | 2.27              | 14443            | F0623 36. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 24.16           | 38.50  | 424              | 2.12              | 14500            | F0623 40. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 19.47           | 47.78  | 526              | 1.71              | 14500            | F0623 50. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 16.51           | 56.34  | 620              | 1.45              | 14500            | F0623 56. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 15.08           | 61.69  | 679              | 1.32              | 14500            | F0623 63. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 12.30           | 75.60  | 833              | 1.05              | 14500            | F0623 71. M _ _ _ _ 1.1C - -                                                             | 71                              | 90L           |
| 22.94           | 40.55  | 447              | 3.81              | 16000            | F0723 40. M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 19.78           | 47.01  | 518              | 3.28              | 16000            | F0723 50. M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 16.59           | 56.07  | 618              | 2.75              | 16000            | F0723 56. M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 15.15           | 61.40  | 676              | 2.51              | 16000            | F0723 63. M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 12.62           | 73.68  | 812              | 1.92              | 16000            | F0723 71. M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 10.97           | 84.78  | 934              | 1.31              | 16000            | F0723 90. M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 9.87            | 94.20  | 1037             | 1.00              | 16000            | F0723 100 M _ _ _ _ 1.1C - -                                                             | 94                              | 90L           |
| 11.77           | 78.99  | 861              | 1.75              | 16000            | F0733 80. M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 10.12           | 91.87  | 1001             | 1.59              | 16000            | F0733 90. M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 9.05            | 102.79 | 1120             | 1.52              | 16000            | F0733 100 M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 8.49            | 109.56 | 1194             | 1.42              | 16000            | F0733 112 M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 7.16            | 129.84 | 1415             | 1.20              | 16000            | F0733 125 M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 6.71            | 138.63 | 1511             | 1.12              | 16000            | F0733 160 M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 5.41            | 172.03 | 1875             | 0.91              | 16000            | F0733 180 M _ _ _ _ 1.1C - -                                                             | 99                              | 90L           |
| 12.35           | 75.32  | 830              | 3.68              | 18000            | F0823 71. M _ _ _ _ 1.1C - -                                                             | 132                             | 90L           |
| 11.31           | 82.25  | 906              | 3.26              | 18000            | F0823 90. M _ _ _ _ 1.1C - -                                                             | 132                             | 90L           |
| 9.82            | 94.71  | 1043             | 2.52              | 18000            | F0823 100 M _ _ _ _ 1.1C - -                                                             | 132                             | 90L           |
| 9.08            | 102.39 | 1116             | 2.73              | 18000            | F0833 100 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 8.30            | 112.05 | 1221             | 2.50              | 18000            | F0833 112 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 7.34            | 126.77 | 1382             | 2.21              | 18000            | F0833 125 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 6.50            | 143.09 | 1560             | 1.96              | 18000            | F0833 160 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 5.36            | 173.46 | 1891             | 1.61              | 18000            | F0833 180 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 4.60            | 202.29 | 2205             | 1.38              | 18000            | F0833 200 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 4.19            | 222.21 | 2422             | 1.26              | 18000            | F0833 225 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 3.42            | 272.31 | 2968             | 1.03              | 18000            | F0833 280 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 3.13            | 297.37 | 3241             | 0.94              | 18000            | F0833 320 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 2.72            | 342.42 | 3733             | 0.82              | 18000            | F0833 360 M _ _ _ _ 1.1C - -                                                             | 137                             | 90L           |
| 8.84            | 105.26 | 1147             | 3.76              | 35000            | F0933 100 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 8.07            | 115.19 | 1256             | 3.43              | 35000            | F0933 112 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 7.14            | 130.32 | 1421             | 3.03              | 35000            | F0933 125 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 6.32            | 147.11 | 1604             | 2.69              | 35000            | F0933 160 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 5.22            | 178.33 | 1944             | 2.22              | 35000            | F0933 180 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 4.47            | 207.96 | 2267             | 1.90              | 35000            | F0933 200 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 4.07            | 228.44 | 2490             | 1.73              | 35000            | F0933 225 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 3.32            | 279.95 | 3052             | 1.41              | 35000            | F0933 280 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 3.04            | 305.71 | 3332             | 1.29              | 35000            | F0933 320 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 2.64            | 352.02 | 3837             | 1.12              | 35000            | F0933 360 M _ _ _ _ 1.1C - -                                                             | 211                             | 90L           |
| 2.25            | 413.16 | 4434             | 0.97              | 35000            | F0943 400 M _ _ _ _ 1.1C - -                                                             | 227                             | 90L           |
| 2.02            | 459.91 | 4935             | 0.87              | 35000            | F0943 450 M _ _ _ _ 1.1C - -                                                             | 227                             | 90L           |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.1 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 4.48            | 207.38 | 2260             | 3.54              | 43000            | F1033 200 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 300                             | 90L           |
| 4.06            | 228.94 | 2495             | 3.21              | 43000            | F1033 225 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 300                             | 90L           |
| 3.34            | 278.26 | 3033             | 2.64              | 43000            | F1033 280 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 300                             | 90L           |
| 2.95            | 314.94 | 3433             | 2.33              | 43000            | F1033 320 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 300                             | 90L           |
| 2.63            | 354.14 | 3860             | 2.07              | 43000            | F1033 360 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 300                             | 90L           |
| 2.26            | 411.35 | 4414             | 1.81              | 43000            | F1043 400 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 2.03            | 457.90 | 4914             | 1.63              | 43000            | F1043 450 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 1.83            | 508.73 | 5459             | 1.47              | 43000            | F1043 500 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 1.64            | 565.64 | 6070             | 1.32              | 43000            | F1043 560 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 1.49            | 622.20 | 6677             | 1.20              | 43000            | F1043 630 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 1.30            | 714.97 | 7672             | 1.04              | 43000            | F1043 710 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 1.15            | 810.75 | 8700             | 0.92              | 43000            | F1043 800 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |
| 1.04            | 894.25 | 9596             | 0.83              | 43000            | F1043 900 _ M _ _ _ _ 1.1C _ _                                                                                                                                                             | 315                             | 90L           |

**1.5 kW**

4 POLE

|        |        |      |      |       |                                |    |     |
|--------|--------|------|------|-------|--------------------------------|----|-----|
| 242.27 | 5.90   | 58   | 1.09 | 1417  | F0223 5.0 _ M _ _ _ _ 1.5A _ _ | 39 | 90L |
| 179.34 | 7.97   | 78   | 0.94 | 1512  | F0223 6.3 _ M _ _ _ _ 1.5A _ _ | 39 | 90L |
| 157.67 | 9.07   | 89   | 0.88 | 1549  | F0223 9.0 _ M _ _ _ _ 1.5A _ _ | 39 | 90L |
| 139.17 | 10.27  | 100  | 0.82 | 1584  | F0223 10. _ M _ _ _ _ 1.5A _ _ | 39 | 90L |
| 215.11 | 6.65   | 65   | 2.37 | 3395  | F0323 6.3 _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 159.24 | 8.98   | 88   | 2.04 | 3493  | F0323 9.0 _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 140.00 | 10.21  | 100  | 1.89 | 3549  | F0323 10. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 123.57 | 11.57  | 113  | 1.78 | 3589  | F0323 12. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 96.63  | 14.80  | 145  | 1.52 | 3698  | F0323 14. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 89.66  | 15.95  | 156  | 1.46 | 3728  | F0323 16. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 71.02  | 20.14  | 197  | 1.22 | 3817  | F0323 20. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 62.64  | 22.83  | 223  | 1.10 | 3955  | F0323 22. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 54.82  | 26.09  | 255  | 0.98 | 4057  | F0323 25. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 49.28  | 29.02  | 283  | 0.88 | 4151  | F0323 28. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 44.70  | 31.99  | 312  | 0.80 | 4237  | F0323 32. _ M _ _ _ _ 1.5A _ _ | 41 | 90L |
| 226.27 | 6.32   | 62   | 3.94 | 4284  | F0423 6.3 _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 161.32 | 8.86   | 87   | 3.37 | 4119  | F0423 9.0 _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 146.39 | 9.77   | 95   | 3.22 | 4132  | F0423 10. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 128.92 | 11.09  | 108  | 3.01 | 4175  | F0423 12. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 101.50 | 14.09  | 138  | 2.56 | 4308  | F0423 14. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 89.35  | 16.01  | 156  | 2.30 | 4440  | F0423 16. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 72.80  | 19.64  | 192  | 1.93 | 4652  | F0423 20. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 65.64  | 21.79  | 213  | 1.76 | 4765  | F0423 22. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 57.78  | 24.75  | 242  | 1.59 | 4894  | F0423 25. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 50.85  | 28.12  | 275  | 1.42 | 5148  | F0423 28. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 46.18  | 30.97  | 302  | 1.31 | 5302  | F0423 32. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 40.15  | 35.62  | 348  | 1.16 | 5359  | F0423 36. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 36.93  | 38.72  | 378  | 1.08 | 5665  | F0423 40. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 30.76  | 46.49  | 454  | 0.93 | 5764  | F0423 50. _ M _ _ _ _ 1.5A _ _ | 47 | 90L |
| 100.86 | 14.18  | 138  | 3.63 | 3829  | F0523 14. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 88.97  | 16.07  | 157  | 3.26 | 3992  | F0523 16. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 74.60  | 19.17  | 187  | 2.81 | 4253  | F0523 20. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 64.79  | 22.07  | 216  | 2.49 | 4445  | F0523 22. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 55.71  | 25.67  | 251  | 2.19 | 4666  | F0523 25. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 49.79  | 28.72  | 281  | 1.99 | 4816  | F0523 28. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 46.71  | 30.61  | 299  | 1.88 | 4906  | F0523 32. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 39.42  | 36.28  | 354  | 1.63 | 5137  | F0523 36. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 36.92  | 38.74  | 378  | 1.54 | 5232  | F0523 40. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 29.75  | 48.07  | 469  | 1.28 | 5533  | F0523 50. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 25.23  | 56.68  | 554  | 1.11 | 5756  | F0523 56. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 23.04  | 62.06  | 606  | 1.03 | 5875  | F0523 63. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 18.80  | 76.06  | 743  | 0.86 | 6161  | F0523 71. _ M _ _ _ _ 1.5A _ _ | 56 | 90L |
| 65.19  | 21.94  | 214  | 3.47 | 11412 | F0623 22. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 56.05  | 25.52  | 249  | 3.37 | 11372 | F0623 25. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 50.09  | 28.55  | 279  | 3.17 | 11495 | F0623 28. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 47.00  | 30.43  | 297  | 3.03 | 11643 | F0623 32. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 39.66  | 36.06  | 352  | 2.56 | 12124 | F0623 36. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 37.14  | 38.50  | 376  | 2.39 | 12317 | F0623 40. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 29.93  | 47.78  | 467  | 1.93 | 12909 | F0623 50. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 25.38  | 56.34  | 550  | 1.64 | 13329 | F0623 56. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 23.18  | 61.69  | 603  | 1.49 | 13535 | F0623 63. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 18.92  | 75.60  | 738  | 1.19 | 14500 | F0623 71. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 16.97  | 84.26  | 823  | 0.81 | 14500 | F0623 90. _ M _ _ _ _ 1.5A _ _ | 71 | 90L |
| 14.00  | 102.17 | 988  | 0.91 | 14500 | F0633 100 _ M _ _ _ _ 1.5A _ _ | 73 | 90L |
| 12.71  | 112.51 | 1088 | 0.83 | 14500 | F0633 112 _ M _ _ _ _ 1.5A _ _ | 73 | 90L |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.5 kW**

4 POLE

| N2<br>rpm       | i       | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|---------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio   | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 30.42           | 47.01   | 459              | 3.70              | 16000            | F0723 50. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 94                              | 90L           |
| 25.50           | 56.07   | 548              | 3.10              | 16000            | F0723 56. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 94                              | 90L           |
| 23.29           | 61.40   | 600              | 2.83              | 16000            | F0723 63. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 94                              | 90L           |
| 19.41           | 73.68   | 720              | 2.16              | 16000            | F0723 71. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 94                              | 90L           |
| 16.87           | 84.78   | 828              | 1.48              | 16000            | F0723 90. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 94                              | 90L           |
| 15.18           | 94.20   | 920              | 1.13              | 16000            | F0723 100 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 94                              | 90L           |
| 18.10           | 78.99   | 764              | 1.82              | 16000            | F0733 80. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 15.56           | 91.87   | 888              | 1.64              | 16000            | F0733 90. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 13.91           | 102.79  | 994              | 1.57              | 16000            | F0733 100 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 13.05           | 109.56  | 1059             | 1.47              | 16000            | F0733 112 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 11.01           | 129.84  | 1255             | 1.29              | 16000            | F0733 125 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 10.32           | 138.63  | 1340             | 1.23              | 16000            | F0733 160 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 8.31            | 172.03  | 1663             | 1.02              | 16000            | F0733 180 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 7.05            | 202.86  | 1961             | 0.87              | 16000            | F0733 200 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 99                              | 90L           |
| 17.39           | 82.25   | 803              | 3.67              | 18000            | F0823 90. _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 132                             | 90L           |
| 15.10           | 94.71   | 925              | 2.84              | 18000            | F0823 100 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 132                             | 90L           |
| 13.97           | 102.39  | 990              | 3.08              | 18000            | F0833 100 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 12.76           | 112.05  | 1083             | 2.82              | 18000            | F0833 112 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 11.28           | 126.77  | 1225             | 2.49              | 18000            | F0833 125 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 9.99            | 143.09  | 1383             | 2.20              | 18000            | F0833 160 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 8.24            | 173.46  | 1677             | 1.82              | 18000            | F0833 180 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 7.07            | 202.29  | 1956             | 1.56              | 18000            | F0833 200 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 6.44            | 222.21  | 2148             | 1.42              | 18000            | F0833 225 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 5.25            | 272.31  | 2632             | 1.16              | 18000            | F0833 280 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 4.81            | 297.37  | 2875             | 1.06              | 18000            | F0833 320 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 4.18            | 342.42  | 3310             | 0.92              | 18000            | F0833 360 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 137                             | 90L           |
| 10.97           | 130.32  | 1260             | 3.57              | 35000            | F0933 125 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 9.72            | 147.11  | 1422             | 3.16              | 35000            | F0933 160 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 8.02            | 178.33  | 1724             | 2.61              | 35000            | F0933 180 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 6.88            | 207.96  | 2010             | 2.24              | 35000            | F0933 200 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 6.26            | 228.44  | 2208             | 2.04              | 35000            | F0933 225 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 5.11            | 279.95  | 2706             | 1.66              | 35000            | F0933 280 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 4.68            | 305.71  | 2955             | 1.52              | 35000            | F0933 320 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 4.06            | 352.02  | 3403             | 1.32              | 35000            | F0933 360 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 211                             | 90L           |
| 3.46            | 413.16  | 3932             | 1.14              | 35000            | F0943 400 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 227                             | 90L           |
| 3.11            | 459.91  | 4377             | 1.03              | 35000            | F0943 450 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 227                             | 90L           |
| 2.80            | 510.96  | 4863             | 0.93              | 35000            | F0943 500 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 227                             | 90L           |
| 2.50            | 573.03  | 5453             | 0.83              | 35000            | F0943 560 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 227                             | 90L           |
| 6.90            | 207.38  | 2005             | 3.99              | 43000            | F1033 200 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 300                             | 90L           |
| 6.25            | 228.94  | 2213             | 3.61              | 43000            | F1033 225 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 300                             | 90L           |
| 5.14            | 278.26  | 2690             | 2.97              | 43000            | F1033 280 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 300                             | 90L           |
| 4.54            | 314.94  | 3044             | 2.63              | 43000            | F1033 320 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 300                             | 90L           |
| 4.04            | 354.14  | 3423             | 2.34              | 43000            | F1033 360 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 300                             | 90L           |
| 3.48            | 411.35  | 3915             | 2.04              | 43000            | F1043 400 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 3.12            | 457.90  | 4358             | 1.84              | 43000            | F1043 450 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 2.81            | 508.73  | 4841             | 1.65              | 43000            | F1043 500 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 2.53            | 565.64  | 5383             | 1.49              | 43000            | F1043 560 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 2.30            | 622.20  | 5921             | 1.35              | 43000            | F1043 630 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 2.00            | 714.97  | 6804             | 1.18              | 43000            | F1043 710 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 1.76            | 810.75  | 7716             | 1.04              | 43000            | F1043 800 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 1.60            | 894.25  | 8510             | 0.94              | 43000            | F1043 900 _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |
| 1.40            | 1024.10 | 9746             | 0.82              | 43000            | F1043 10C _ M _ _ _ _ 1.5A - -                                                                                                                                                             | 315                             | 90L           |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.5 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 141.40          | 6.65   | 99               | 1.69              | 3617             | F0323 6.3 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
| 104.67          | 8.98   | 133              | 1.45              | 3737             | F0323 9.0 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
| 92.03           | 10.21  | 152              | 1.35              | 3798             | F0323 10. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
| 81.23           | 11.57  | 172              | 1.26              | 3844             | F0323 12. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
| 63.52           | 14.80  | 220              | 1.01              | 4017             | F0323 14. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
| 58.94           | 15.95  | 237              | 0.98              | 4044             | F0323 16. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
| 46.68           | 20.14  | 299              | 0.80              | 4207             | F0323 20. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 55                              | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 148.74          | 6.32   | 94               | 2.93              | 4334             | F0423 6.3 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 106.04          | 8.86   | 132              | 2.51              | 4377             | F0423 9.0 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 96.23           | 9.77   | 145              | 2.40              | 4394             | F0423 10. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 84.74           | 11.09  | 165              | 2.20              | 4482             | F0423 12. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 66.72           | 14.09  | 209              | 1.79              | 4737             | F0423 14. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 58.73           | 16.01  | 238              | 1.61              | 4865             | F0423 16. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 47.85           | 19.64  | 292              | 1.35              | 5077             | F0423 20. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 43.15           | 21.79  | 324              | 1.24              | 5189             | F0423 22. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 37.98           | 24.75  | 368              | 1.11              | 5319             | F0423 25. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 33.43           | 28.12  | 418              | 0.98              | 5737             | F0423 28. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
| 30.36           | 30.97  | 460              | 0.91              | 5896             | F0423 32. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 59                              | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 105.93          | 8.87   | 132              | 3.78              | 3742             | F0523 9.0 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 94.51           | 9.95   | 148              | 3.43              | 3908             | F0523 10. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 84.20           | 11.16  | 166              | 3.10              | 4074             | F0523 12. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 66.30           | 14.18  | 211              | 2.53              | 4402             | F0523 14. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 58.48           | 16.07  | 239              | 2.28              | 4570             | F0523 16. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 49.04           | 19.17  | 285              | 1.96              | 4809             | F0523 20. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 42.59           | 22.07  | 328              | 1.74              | 5014             | F0523 22. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 36.62           | 25.67  | 381              | 1.52              | 5219             | F0523 25. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 32.73           | 28.72  | 427              | 1.39              | 5372             | F0523 28. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 30.71           | 30.61  | 455              | 1.31              | 5458             | F0523 32. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 25.91           | 36.28  | 539              | 1.14              | 5693             | F0523 36. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 24.27           | 38.74  | 576              | 1.07              | 5790             | F0523 40. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
| 19.56           | 48.07  | 714              | 0.89              | 6078             | F0523 50. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 67                              | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 58.84           | 15.98  | 237              | 3.79              | 10904            | F0623 16. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 49.34           | 19.05  | 283              | 3.18              | 11446            | F0623 20. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 42.85           | 21.94  | 326              | 2.29              | 12419            | F0623 22. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 36.84           | 25.52  | 379              | 2.23              | 12489            | F0623 25. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 32.93           | 28.55  | 424              | 2.09              | 12606            | F0623 28. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 30.89           | 30.43  | 452              | 1.99              | 12786            | F0623 32. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 26.07           | 36.06  | 536              | 1.68              | 13202            | F0623 36. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 24.42           | 38.50  | 572              | 1.57              | 13404            | F0623 40. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 19.68           | 47.78  | 710              | 1.27              | 13959            | F0623 50. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 16.69           | 56.34  | 837              | 1.08              | 14308            | F0623 56. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
| 15.24           | 61.69  | 917              | 0.98              | 14471            | F0623 63. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 86                              | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 30.02           | 31.32  | 465              | 3.65              | 16000            | F0723 32. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 26.21           | 35.86  | 533              | 3.19              | 16000            | F0723 36. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 23.18           | 40.55  | 602              | 2.82              | 16000            | F0723 40. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 20.00           | 47.01  | 698              | 2.43              | 16000            | F0723 50. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 16.76           | 56.07  | 833              | 2.04              | 16000            | F0723 56. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 15.31           | 61.40  | 912              | 1.86              | 16000            | F0723 63. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 12.76           | 73.68  | 1095             | 1.42              | 16000            | F0723 71. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
| 11.09           | 84.78  | 1260             | 0.97              | 16000            | F0723 90. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 110                             | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 11.90           | 78.99  | 1162             | 1.30              | 16000            | F0733 80. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 114                             | 100L          |
| 10.23           | 91.87  | 1351             | 1.18              | 16000            | F0733 90. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 114                             | 100L          |
| 9.14            | 102.79 | 1512             | 1.12              | 16000            | F0733 100 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 114                             | 100L          |
| 8.58            | 109.56 | 1611             | 1.06              | 16000            | F0733 112 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 114                             | 100L          |
| 7.24            | 129.84 | 1909             | 0.89              | 16000            | F0733 125 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 114                             | 100L          |
| 6.78            | 138.63 | 2039             | 0.83              | 16000            | F0733 160 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 114                             | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 16.80           | 55.95  | 831              | 3.64              | 18000            | F0823 56. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 143                             | 100L          |
| 15.29           | 61.46  | 913              | 3.34              | 18000            | F0823 63. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 143                             | 100L          |
| 12.48           | 75.32  | 1119             | 2.73              | 18000            | F0823 71. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 143                             | 100L          |
| 11.43           | 82.25  | 1222             | 2.41              | 18000            | F0823 90. M _ _ _ _ 1.5C _ _                                                                                                                                                               | 143                             | 100L          |
| 9.92            | 94.71  | 1407             | 1.87              | 18000            | F0823 100 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 143                             | 100L          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 9.18            | 102.39 | 1506             | 2.03              | 18000            | F0833 100 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |
| 8.39            | 112.05 | 1648             | 1.85              | 18000            | F0833 112 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |
| 7.42            | 126.77 | 1864             | 1.64              | 18000            | F0833 125 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |
| 6.57            | 143.09 | 2104             | 1.45              | 18000            | F0833 160 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |
| 5.42            | 173.46 | 2551             | 1.20              | 18000            | F0833 180 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |
| 4.65            | 202.29 | 2975             | 1.03              | 18000            | F0833 200 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |
| 4.23            | 222.21 | 3268             | 0.93              | 18000            | F0833 225 M _ _ _ _ 1.5C _ _                                                                                                                                                               | 148                             | 100L          |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**1.5 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 12.17           | 77.26  | 1148             | 3.75              | 35000            | F0923 71. _ M _ _ _ _ 1.5C _ _                                                           | 212                             | 100L          |
| 10.75           | 87.44  | 1299             | 3.32              | 35000            | F0923 90. _ M _ _ _ _ 1.5C _ _                                                           | 212                             | 100L          |
| 9.56            | 98.32  | 1461             | 2.95              | 35000            | F0923 100 _ M _ _ _ _ 1.5C _ _                                                           | 212                             | 100L          |
| 8.93            | 105.26 | 1548             | 2.78              | 35000            | F0933 100 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 8.16            | 115.19 | 1694             | 2.54              | 35000            | F0933 112 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 7.21            | 130.32 | 1917             | 2.25              | 35000            | F0933 125 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 6.39            | 147.11 | 2163             | 1.99              | 35000            | F0933 160 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 5.27            | 178.33 | 2622             | 1.64              | 35000            | F0933 180 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 4.52            | 207.96 | 3058             | 1.41              | 35000            | F0933 200 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 4.11            | 228.44 | 3359             | 1.28              | 35000            | F0933 225 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 3.36            | 279.95 | 4117             | 1.05              | 35000            | F0933 280 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 3.07            | 305.71 | 4496             | 0.96              | 35000            | F0933 320 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 2.67            | 352.02 | 5177             | 0.83              | 35000            | F0933 360 _ M _ _ _ _ 1.5C _ _                                                           | 222                             | 100L          |
| 6.40            | 146.81 | 2159             | 3.71              | 43000            | F1033 160 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 5.24            | 179.56 | 2641             | 3.03              | 43000            | F1033 180 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 4.53            | 207.38 | 3050             | 2.62              | 43000            | F1033 200 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 4.11            | 228.94 | 3367             | 2.38              | 43000            | F1033 225 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 3.38            | 278.26 | 4092             | 1.96              | 43000            | F1033 280 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 2.98            | 314.94 | 4632             | 1.73              | 43000            | F1033 320 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 2.65            | 354.14 | 5208             | 1.54              | 43000            | F1033 360 _ M _ _ _ _ 1.5C _ _                                                           | 311                             | 100L          |
| 2.29            | 411.35 | 5955             | 1.34              | 43000            | F1043 400 _ M _ _ _ _ 1.5C _ _                                                           | 326                             | 100L          |
| 2.05            | 457.90 | 6629             | 1.21              | 43000            | F1043 450 _ M _ _ _ _ 1.5C _ _                                                           | 326                             | 100L          |
| 1.85            | 508.73 | 7365             | 1.09              | 43000            | F1043 500 _ M _ _ _ _ 1.5C _ _                                                           | 326                             | 100L          |
| 1.66            | 565.64 | 8189             | 0.98              | 43000            | F1043 560 _ M _ _ _ _ 1.5C _ _                                                           | 326                             | 100L          |
| 1.51            | 622.20 | 9008             | 0.89              | 43000            | F1043 630 _ M _ _ _ _ 1.5C _ _                                                           | 326                             | 100L          |

**2.2 kW**

4 POLE

|        |       |      |      |       |                                |    |      |
|--------|-------|------|------|-------|--------------------------------|----|------|
| 218.12 | 6.65  | 94   | 1.64 | 3039  | F0323 6.3 _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 161.47 | 8.98  | 127  | 1.41 | 3127  | F0323 9.0 _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 141.96 | 10.21 | 144  | 1.31 | 3177  | F0323 10. _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 125.30 | 11.57 | 163  | 1.23 | 3213  | F0323 12. _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 97.98  | 14.80 | 209  | 1.05 | 3310  | F0323 14. _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 90.91  | 15.95 | 225  | 1.01 | 3337  | F0323 16. _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 72.01  | 20.14 | 284  | 0.84 | 3417  | F0323 20. _ M _ _ _ _ 2.2A _ _ | 55 | 100L |
| 229.43 | 6.32  | 89   | 2.72 | 3835  | F0423 6.3 _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 163.57 | 8.86  | 125  | 2.33 | 3687  | F0423 9.0 _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 148.44 | 9.77  | 138  | 2.22 | 3699  | F0423 10. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 130.72 | 11.09 | 157  | 2.08 | 3737  | F0423 12. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 102.92 | 14.09 | 199  | 1.77 | 3856  | F0423 14. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 90.60  | 16.01 | 226  | 1.59 | 3975  | F0423 16. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 73.82  | 19.64 | 278  | 1.33 | 4164  | F0423 20. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 66.56  | 21.79 | 308  | 1.22 | 4265  | F0423 22. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 58.59  | 24.75 | 350  | 1.10 | 4381  | F0423 25. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 51.56  | 28.12 | 397  | 0.98 | 4608  | F0423 28. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 46.82  | 30.97 | 437  | 0.91 | 4746  | F0423 32. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 40.71  | 35.62 | 503  | 0.80 | 4797  | F0423 36. _ M _ _ _ _ 2.2A _ _ | 59 | 100L |
| 163.40 | 8.87  | 125  | 3.77 | 2843  | F0523 9.0 _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 145.79 | 9.95  | 141  | 3.41 | 2991  | F0523 10. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 129.88 | 11.16 | 158  | 3.09 | 3142  | F0523 12. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 102.27 | 14.18 | 200  | 2.51 | 3427  | F0523 14. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 90.22  | 16.07 | 227  | 2.25 | 3574  | F0523 16. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 75.64  | 19.17 | 271  | 1.94 | 3808  | F0523 20. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 65.70  | 22.07 | 312  | 1.72 | 3979  | F0523 22. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 56.48  | 25.67 | 363  | 1.51 | 4176  | F0523 25. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 50.49  | 28.72 | 406  | 1.37 | 4311  | F0523 28. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 47.37  | 30.61 | 432  | 1.30 | 4392  | F0523 32. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 39.97  | 36.28 | 513  | 1.12 | 4598  | F0523 36. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 37.43  | 38.74 | 547  | 1.06 | 4683  | F0523 40. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 30.17  | 48.07 | 679  | 0.88 | 4953  | F0523 50. _ M _ _ _ _ 2.2A _ _ | 67 | 100L |
| 102.89 | 14.09 | 199  | 4.10 | 8734  | F0623 14. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 90.77  | 15.98 | 226  | 3.83 | 8811  | F0623 16. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 76.11  | 19.05 | 269  | 3.34 | 9107  | F0623 20. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 66.10  | 21.94 | 310  | 2.40 | 10216 | F0623 22. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 56.83  | 25.52 | 360  | 2.33 | 10180 | F0623 25. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 50.79  | 28.55 | 403  | 2.19 | 10290 | F0623 28. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 47.66  | 30.43 | 430  | 2.09 | 10422 | F0623 32. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 40.21  | 36.06 | 509  | 1.77 | 10854 | F0623 36. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 37.66  | 38.50 | 544  | 1.65 | 11026 | F0623 40. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 30.35  | 47.78 | 675  | 1.33 | 11556 | F0623 50. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 25.74  | 56.34 | 796  | 1.13 | 11932 | F0623 56. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 23.51  | 61.69 | 871  | 1.03 | 12116 | F0623 63. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |
| 19.18  | 75.60 | 1068 | 0.82 | 13669 | F0623 71. _ M _ _ _ _ 2.2A _ _ | 86 | 100L |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**2.2 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 46.30           | 31.32  | 442              | 3.84              | 13868            | F0723 32. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 40.43           | 35.86  | 507              | 3.36              | 14523            | F0723 36. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 35.76           | 40.55  | 573              | 2.97              | 15106            | F0723 40. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 30.84           | 47.01  | 664              | 2.56              | 15776            | F0723 50. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 25.86           | 56.07  | 792              | 2.15              | 16000            | F0723 56. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 23.61           | 61.40  | 867              | 1.96              | 16000            | F0723 63. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 19.68           | 73.68  | 1041             | 1.49              | 16000            | F0723 71. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 17.10           | 84.78  | 1198             | 1.02              | 16000            | F0723 90. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 110                             | 100L          |
| 18.36           | 78.99  | 1116             | 1.25              | 16000            | F0733 80. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 114                             | 100L          |
| 15.78           | 91.87  | 1298             | 1.12              | 16000            | F0733 90. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 114                             | 100L          |
| 14.11           | 102.79 | 1452             | 1.07              | 16000            | F0733 100 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 114                             | 100L          |
| 13.23           | 109.56 | 1548             | 1.01              | 16000            | F0733 112 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 114                             | 100L          |
| 11.17           | 129.84 | 1834             | 0.88              | 16000            | F0733 125 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 114                             | 100L          |
| 10.46           | 138.63 | 1958             | 0.84              | 16000            | F0733 160 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 114                             | 100L          |
| 25.91           | 55.95  | 790              | 3.83              | 17658            | F0823 56. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 143                             | 100L          |
| 23.59           | 61.46  | 868              | 3.51              | 17931            | F0823 63. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 143                             | 100L          |
| 19.25           | 75.32  | 1064             | 2.87              | 18000            | F0823 71. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 143                             | 100L          |
| 17.63           | 82.25  | 1162             | 2.54              | 18000            | F0823 90. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 143                             | 100L          |
| 15.31           | 94.71  | 1338             | 1.97              | 18000            | F0823 100 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 143                             | 100L          |
| 14.16           | 102.39 | 1432             | 2.13              | 18000            | F0833 100 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 12.94           | 112.05 | 1567             | 1.95              | 18000            | F0833 112 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 11.44           | 126.77 | 1773             | 1.72              | 18000            | F0833 125 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 10.13           | 143.09 | 2001             | 1.52              | 18000            | F0833 160 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 8.36            | 173.46 | 2425             | 1.26              | 18000            | F0833 180 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 7.17            | 202.29 | 2829             | 1.08              | 18000            | F0833 200 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 6.53            | 222.21 | 3107             | 0.98              | 18000            | F0833 225 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 148                             | 100L          |
| 16.58           | 87.44  | 1235             | 3.64              | 35000            | F0923 90. _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 212                             | 100L          |
| 14.75           | 98.32  | 1389             | 3.24              | 35000            | F0923 100 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 212                             | 100L          |
| 13.78           | 105.26 | 1472             | 3.06              | 35000            | F0933 100 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 12.59           | 115.19 | 1611             | 2.79              | 35000            | F0933 112 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 11.13           | 130.32 | 1822             | 2.47              | 35000            | F0933 125 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 9.86            | 147.11 | 2057             | 2.19              | 35000            | F0933 160 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 8.13            | 178.33 | 2493             | 1.80              | 35000            | F0933 180 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 6.97            | 207.96 | 2908             | 1.55              | 35000            | F0933 200 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 6.35            | 228.44 | 3194             | 1.41              | 35000            | F0933 225 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 5.18            | 279.95 | 3914             | 1.15              | 35000            | F0933 280 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 4.74            | 305.71 | 4275             | 1.05              | 35000            | F0933 320 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 4.12            | 352.02 | 4922             | 0.91              | 35000            | F0933 360 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 238                             | 100L          |
| 9.88            | 146.81 | 2053             | 3.90              | 43000            | F1033 160 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 8.08            | 179.56 | 2511             | 3.19              | 43000            | F1033 180 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 6.99            | 207.38 | 2900             | 2.76              | 43000            | F1033 200 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 6.33            | 228.94 | 3201             | 2.50              | 43000            | F1033 225 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 5.21            | 278.26 | 3891             | 2.06              | 43000            | F1033 280 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 4.60            | 314.94 | 4404             | 1.82              | 43000            | F1033 320 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 4.09            | 354.14 | 4952             | 1.62              | 43000            | F1033 360 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 311                             | 100L          |
| 3.53            | 411.35 | 5662             | 1.41              | 43000            | F1043 400 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 326                             | 100L          |
| 3.17            | 457.90 | 6303             | 1.27              | 43000            | F1043 450 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 326                             | 100L          |
| 2.85            | 508.73 | 7003             | 1.14              | 43000            | F1043 500 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 326                             | 100L          |
| 2.56            | 565.64 | 7786             | 1.03              | 43000            | F1043 560 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 326                             | 100L          |
| 2.33            | 622.20 | 8565             | 0.93              | 43000            | F1043 630 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 326                             | 100L          |
| 2.03            | 714.97 | 9842             | 0.81              | 43000            | F1043 710 _ M _ _ _ _ 2.2A - -                                                                                                                                                             | 326                             | 100L          |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**2.2 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 141.40          | 6.65   | 145              | 1.15              | 3225             | F0323 6.3 M _ _ _ _ 2.2C _ _                                                             | 61                              | 112M          |
| 104.67          | 8.98   | 196              | 0.99              | 3331             | F0323 9.0 M _ _ _ _ 2.2C _ _                                                             | 61                              | 112M          |
| 92.03           | 10.21  | 223              | 0.92              | 3385             | F0323 10. M _ _ _ _ 2.2C _ _                                                             | 61                              | 112M          |
| 81.23           | 11.57  | 252              | 0.86              | 3427             | F0323 12. M _ _ _ _ 2.2C _ _                                                             | 61                              | 112M          |
| 148.74          | 6.32   | 138              | 2.00              | 3864             | F0423 6.3 M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 106.04          | 8.86   | 193              | 1.71              | 3902             | F0423 9.0 M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 96.23           | 9.77   | 213              | 1.63              | 3917             | F0423 10. M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 84.74           | 11.09  | 242              | 1.50              | 3996             | F0423 12. M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 66.72           | 14.09  | 307              | 1.22              | 4223             | F0423 14. M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 58.73           | 16.01  | 349              | 1.10              | 4337             | F0423 16. M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 47.85           | 19.64  | 428              | 0.92              | 4526             | F0423 20. M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 43.15           | 21.79  | 475              | 0.84              | 4626             | F0423 22. M _ _ _ _ 2.2C _ _                                                             | 65                              | 112M          |
| 148.93          | 6.31   | 138              | 3.46              | 2917             | F0523 6.3 M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 105.93          | 8.87   | 193              | 2.58              | 3336             | F0523 9.0 M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 94.51           | 9.95   | 217              | 2.34              | 3484             | F0523 10. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 84.20           | 11.16  | 243              | 2.12              | 3632             | F0523 12. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 66.30           | 14.18  | 309              | 1.73              | 3924             | F0523 14. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 58.48           | 16.07  | 350              | 1.55              | 4074             | F0523 16. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 49.04           | 19.17  | 418              | 1.34              | 4287             | F0523 20. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 42.59           | 22.07  | 481              | 1.18              | 4470             | F0523 22. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 36.62           | 25.67  | 559              | 1.04              | 4653             | F0523 25. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 32.73           | 28.72  | 626              | 0.95              | 4789             | F0523 28. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 30.71           | 30.61  | 667              | 0.89              | 4865             | F0523 32. M _ _ _ _ 2.2C _ _                                                             | 73                              | 112M          |
| 149.84          | 6.27   | 137              | 3.75              | 9323             | F0623 6.3 M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 106.58          | 8.82   | 192              | 3.49              | 9342             | F0623 9.0 M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 95.09           | 9.89   | 215              | 3.36              | 9347             | F0623 10. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 84.71           | 11.10  | 242              | 3.00              | 9620             | F0623 12. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 66.70           | 14.09  | 307              | 2.91              | 9408             | F0623 14. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 58.84           | 15.98  | 348              | 2.59              | 9720             | F0623 16. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 49.34           | 19.05  | 415              | 2.17              | 10203            | F0623 20. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 42.85           | 21.94  | 478              | 1.56              | 11071            | F0623 22. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 36.84           | 25.52  | 556              | 1.52              | 11134            | F0623 25. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 32.93           | 28.55  | 622              | 1.43              | 11238            | F0623 28. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 30.89           | 30.43  | 663              | 1.36              | 11398            | F0623 32. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 26.07           | 36.06  | 786              | 1.15              | 11769            | F0623 36. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 24.42           | 38.50  | 839              | 1.07              | 11949            | F0623 40. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 19.68           | 47.78  | 1041             | 0.86              | 12444            | F0623 50. M _ _ _ _ 2.2C _ _                                                             | 92                              | 112M          |
| 47.46           | 19.81  | 432              | 3.34              | 14784            | F0723 20. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 43.14           | 21.79  | 475              | 3.16              | 14968            | F0723 22. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 37.54           | 25.04  | 546              | 2.99              | 14997            | F0723 25. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 33.11           | 28.39  | 619              | 2.75              | 15167            | F0723 28. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 30.02           | 31.32  | 682              | 2.49              | 15648            | F0723 32. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 26.21           | 35.86  | 782              | 2.18              | 16000            | F0723 36. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 23.18           | 40.55  | 884              | 1.92              | 16000            | F0723 40. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 20.00           | 47.01  | 1024             | 1.66              | 16000            | F0723 50. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 16.76           | 56.07  | 1222             | 1.39              | 16000            | F0723 56. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 15.31           | 61.40  | 1338             | 1.27              | 16000            | F0723 63. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 12.76           | 73.68  | 1606             | 0.97              | 16000            | F0723 71. M _ _ _ _ 2.2C _ _                                                             | 116                             | 112M          |
| 33.19           | 28.32  | 617              | 3.90              | 18000            | F0823 28. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 30.33           | 30.99  | 675              | 3.42              | 18000            | F0823 32. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 26.81           | 35.06  | 764              | 3.25              | 18000            | F0823 36. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 23.75           | 39.58  | 863              | 3.03              | 18000            | F0823 40. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 19.59           | 47.98  | 1046             | 2.71              | 18000            | F0823 50. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 16.80           | 55.95  | 1219             | 2.48              | 18000            | F0823 56. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 15.29           | 61.46  | 1339             | 2.28              | 18000            | F0823 63. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 12.48           | 75.32  | 1641             | 1.86              | 18000            | F0823 71. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 11.43           | 82.25  | 1792             | 1.65              | 18000            | F0823 90. M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 9.92            | 94.71  | 2064             | 1.27              | 18000            | F0823 100 M _ _ _ _ 2.2C _ _                                                             | 149                             | 112M          |
| 9.18            | 102.39 | 2231             | 1.37              | 18000            | F0833 100 M _ _ _ _ 2.2C _ _                                                             | 154                             | 112M          |
| 8.39            | 112.05 | 2442             | 1.25              | 18000            | F0833 112 M _ _ _ _ 2.2C _ _                                                             | 154                             | 112M          |
| 7.42            | 126.77 | 2763             | 1.10              | 18000            | F0833 125 M _ _ _ _ 2.2C _ _                                                             | 154                             | 112M          |
| 6.57            | 143.09 | 3118             | 0.98              | 18000            | F0833 160 M _ _ _ _ 2.2C _ _                                                             | 154                             | 112M          |
| 5.42            | 173.46 | 3780             | 0.81              | 18000            | F0833 180 M _ _ _ _ 2.2C _ _                                                             | 154                             | 112M          |
| 18.86           | 49.85  | 1086             | 3.97              | 35000            | F0923 50. M _ _ _ _ 2.2C _ _                                                             | 218                             | 112M          |
| 16.33           | 57.58  | 1255             | 3.44              | 35000            | F0923 56. M _ _ _ _ 2.2C _ _                                                             | 218                             | 112M          |
| 14.79           | 63.56  | 1385             | 3.11              | 35000            | F0923 63. M _ _ _ _ 2.2C _ _                                                             | 218                             | 112M          |
| 12.17           | 77.26  | 1684             | 2.56              | 35000            | F0923 71. M _ _ _ _ 2.2C _ _                                                             | 218                             | 112M          |
| 10.75           | 87.44  | 1906             | 2.26              | 35000            | F0923 90. M _ _ _ _ 2.2C _ _                                                             | 218                             | 112M          |
| 9.56            | 98.32  | 2143             | 2.01              | 35000            | F0923 100 M _ _ _ _ 2.2C _ _                                                             | 218                             | 112M          |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**2.2 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 8.93            | 105.26 | 2270             | 1.90              | 35000            | F0933 100 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 8.16            | 115.19 | 2485             | 1.73              | 35000            | F0933 112 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 7.21            | 130.32 | 2811             | 1.53              | 35000            | F0933 125 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 6.39            | 147.11 | 3173             | 1.36              | 35000            | F0933 160 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 5.27            | 178.33 | 3846             | 1.12              | 35000            | F0933 180 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 4.52            | 207.96 | 4486             | 0.96              | 35000            | F0933 200 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 4.11            | 228.44 | 4927             | 0.87              | 35000            | F0933 225 _ M _ _ _ _ 2.2C _ _                                                           | 228                             | 112M          |
| 10.78           | 87.21  | 1901             | 4.08              | 43000            | F1023 90. _ M _ _ _ _ 2.2C _ _                                                           | 298                             | 112M          |
| 10.03           | 93.70  | 2042             | 3.45              | 43000            | F1023 100 _ M _ _ _ _ 2.2C _ _                                                           | 298                             | 112M          |
| 8.96            | 104.86 | 2262             | 3.54              | 43000            | F1033 100 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 7.92            | 118.71 | 2560             | 3.12              | 43000            | F1033 112 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 7.11            | 132.14 | 2850             | 2.81              | 43000            | F1033 125 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 6.40            | 146.81 | 3167             | 2.53              | 43000            | F1033 160 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 5.24            | 179.56 | 3873             | 2.07              | 43000            | F1033 180 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 4.53            | 207.38 | 4473             | 1.79              | 43000            | F1033 200 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 4.11            | 228.94 | 4938             | 1.62              | 43000            | F1033 225 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 3.38            | 278.26 | 6002             | 1.33              | 43000            | F1033 280 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 2.98            | 314.94 | 6793             | 1.18              | 43000            | F1033 320 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 2.65            | 354.14 | 7638             | 1.05              | 43000            | F1033 360 _ M _ _ _ _ 2.2C _ _                                                           | 317                             | 112M          |
| 2.29            | 411.35 | 8734             | 0.92              | 43000            | F1043 400 _ M _ _ _ _ 2.2C _ _                                                           | 332                             | 112M          |
| 2.05            | 457.90 | 9723             | 0.82              | 43000            | F1043 450 _ M _ _ _ _ 2.2C _ _                                                           | 332                             | 112M          |

**3.0 kW**

4 POLE

|        |       |      |      |       |                                |     |      |
|--------|-------|------|------|-------|--------------------------------|-----|------|
| 218.12 | 6.65  | 128  | 1.20 | 2769  | F0323 6.3 _ M _ _ _ _ 3.0A _ _ | 55  | 100L |
| 161.47 | 8.98  | 173  | 1.03 | 2849  | F0323 9.0 _ M _ _ _ _ 3.0A _ _ | 55  | 100L |
| 141.96 | 10.21 | 197  | 0.96 | 2895  | F0323 10. _ M _ _ _ _ 3.0A _ _ | 55  | 100L |
| 125.30 | 11.57 | 223  | 0.90 | 2928  | F0323 12. _ M _ _ _ _ 3.0A _ _ | 55  | 100L |
| 229.43 | 6.32  | 122  | 2.00 | 3494  | F0423 6.3 _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 163.57 | 8.86  | 171  | 1.71 | 3359  | F0423 9.0 _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 148.44 | 9.77  | 188  | 1.63 | 3370  | F0423 10. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 130.72 | 11.09 | 214  | 1.53 | 3405  | F0423 12. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 102.92 | 14.09 | 271  | 1.30 | 3514  | F0423 14. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 90.60  | 16.01 | 308  | 1.16 | 3622  | F0423 16. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 73.82  | 19.64 | 378  | 0.98 | 3794  | F0423 20. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 66.56  | 21.79 | 420  | 0.89 | 3886  | F0423 22. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 58.59  | 24.75 | 477  | 0.81 | 3992  | F0423 25. _ M _ _ _ _ 3.0A _ _ | 59  | 100L |
| 229.74 | 6.31  | 122  | 3.70 | 2192  | F0523 6.3 _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 163.40 | 8.87  | 171  | 2.76 | 2590  | F0523 9.0 _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 145.79 | 9.95  | 192  | 2.50 | 2725  | F0523 10. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 129.88 | 11.16 | 215  | 2.26 | 2862  | F0523 12. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 102.27 | 14.18 | 273  | 1.84 | 3123  | F0523 14. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 90.22  | 16.07 | 310  | 1.65 | 3256  | F0523 16. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 75.64  | 19.17 | 369  | 1.42 | 3469  | F0523 20. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 65.70  | 22.07 | 425  | 1.26 | 3625  | F0523 22. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 56.48  | 25.67 | 495  | 1.11 | 3805  | F0523 25. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 50.49  | 28.72 | 553  | 1.01 | 3928  | F0523 28. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 47.37  | 30.61 | 590  | 0.95 | 4002  | F0523 32. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 39.97  | 36.28 | 699  | 0.82 | 4190  | F0523 36. _ M _ _ _ _ 3.0A _ _ | 67  | 100L |
| 164.40 | 8.82  | 170  | 3.81 | 7930  | F0623 9.0 _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 146.68 | 9.89  | 190  | 3.61 | 7818  | F0623 10. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 130.67 | 11.10 | 214  | 3.38 | 7865  | F0623 12. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 102.89 | 14.09 | 271  | 3.01 | 7958  | F0623 14. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 90.77  | 15.98 | 308  | 2.81 | 8028  | F0623 16. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 76.11  | 19.05 | 367  | 2.45 | 8298  | F0623 20. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 66.10  | 21.94 | 423  | 1.76 | 9308  | F0623 22. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 56.83  | 25.52 | 492  | 1.71 | 9276  | F0623 25. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 50.79  | 28.55 | 550  | 1.61 | 9376  | F0623 28. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 47.66  | 30.43 | 586  | 1.54 | 9496  | F0623 32. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 40.21  | 36.06 | 695  | 1.30 | 9889  | F0623 36. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 37.66  | 38.50 | 742  | 1.21 | 10046 | F0623 40. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 30.35  | 47.78 | 920  | 0.98 | 10529 | F0623 50. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 25.74  | 56.34 | 1085 | 0.83 | 10872 | F0623 56. _ M _ _ _ _ 3.0A _ _ | 86  | 100L |
| 73.20  | 19.81 | 382  | 3.74 | 11930 | F0723 20. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 66.55  | 21.79 | 420  | 3.54 | 12030 | F0723 22. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 57.91  | 25.04 | 482  | 3.35 | 11984 | F0723 25. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 51.07  | 28.39 | 547  | 3.11 | 12212 | F0723 28. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 46.30  | 31.32 | 603  | 2.82 | 12635 | F0723 32. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 40.43  | 35.86 | 691  | 2.46 | 13232 | F0723 36. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 35.76  | 40.55 | 781  | 2.18 | 13764 | F0723 40. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 30.84  | 47.01 | 906  | 1.88 | 14375 | F0723 50. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 25.86  | 56.07 | 1080 | 1.57 | 15009 | F0723 56. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 23.61  | 61.40 | 1183 | 1.44 | 15386 | F0723 63. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |
| 19.68  | 73.68 | 1420 | 1.10 | 16000 | F0723 71. _ M _ _ _ _ 3.0A _ _ | 110 | 100L |

**NOTE**

Other output speeds  
are available using  
2 and 8 pole motors.  
Consult Application  
Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**3.0 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 18.36           | 78.99  | 1506             | 0.92              | 16000            | F0733 80. M --- 3.0A --                                                                  | 114                             | 100L          |
| 15.78           | 91.87  | 1752             | 0.83              | 16000            | F0733 90. M --- 3.0A --                                                                  | 114                             | 100L          |
| 46.79           | 30.99  | 597              | 3.87              | 15606            | F0823 32. M --- 3.0A --                                                                  | 143                             | 100L          |
| 41.35           | 35.06  | 675              | 3.67              | 15659            | F0823 36. M --- 3.0A --                                                                  | 143                             | 100L          |
| 36.64           | 39.58  | 762              | 3.41              | 15749            | F0823 40. M --- 3.0A --                                                                  | 143                             | 100L          |
| 30.22           | 47.98  | 924              | 3.06              | 15947            | F0823 50. M --- 3.0A --                                                                  | 143                             | 100L          |
| 25.91           | 55.95  | 1078             | 2.81              | 16089            | F0823 56. M --- 3.0A --                                                                  | 143                             | 100L          |
| 23.59           | 61.46  | 1184             | 2.58              | 16338            | F0823 63. M --- 3.0A --                                                                  | 143                             | 100L          |
| 19.25           | 75.32  | 1451             | 2.10              | 17245            | F0823 71. M --- 3.0A --                                                                  | 143                             | 100L          |
| 17.63           | 82.25  | 1585             | 1.86              | 18000            | F0823 90. M --- 3.0A --                                                                  | 143                             | 100L          |
| 15.31           | 94.71  | 1825             | 1.44              | 18000            | F0823 100 M --- 3.0A --                                                                  | 143                             | 100L          |
| 14.16           | 102.39 | 1952             | 1.56              | 18000            | F0833 100 M --- 3.0A --                                                                  | 148                             | 100L          |
| 12.94           | 112.05 | 2136             | 1.43              | 18000            | F0833 112 M --- 3.0A --                                                                  | 148                             | 100L          |
| 11.44           | 126.77 | 2417             | 1.26              | 18000            | F0833 125 M --- 3.0A --                                                                  | 148                             | 100L          |
| 10.13           | 143.09 | 2728             | 1.12              | 18000            | F0833 160 M --- 3.0A --                                                                  | 148                             | 100L          |
| 8.36            | 173.46 | 3307             | 0.92              | 18000            | F0833 180 M --- 3.0A --                                                                  | 148                             | 100L          |
| 22.81           | 63.56  | 1225             | 3.67              | 35000            | F0923 63. M --- 3.0A --                                                                  | 212                             | 100L          |
| 18.77           | 77.26  | 1488             | 3.02              | 35000            | F0923 71. M --- 3.0A --                                                                  | 212                             | 100L          |
| 16.58           | 87.44  | 1685             | 2.67              | 35000            | F0923 90. M --- 3.0A --                                                                  | 212                             | 100L          |
| 14.75           | 98.32  | 1894             | 2.38              | 35000            | F0923 100 M --- 3.0A --                                                                  | 212                             | 100L          |
| 13.78           | 105.26 | 2007             | 2.24              | 35000            | F0933 100 M --- 3.0A --                                                                  | 222                             | 100L          |
| 12.59           | 115.19 | 2196             | 2.05              | 35000            | F0933 112 M --- 3.0A --                                                                  | 222                             | 100L          |
| 11.13           | 130.32 | 2485             | 1.81              | 35000            | F0933 125 M --- 3.0A --                                                                  | 222                             | 100L          |
| 9.86            | 147.11 | 2805             | 1.60              | 35000            | F0933 160 M --- 3.0A --                                                                  | 222                             | 100L          |
| 8.13            | 178.33 | 3400             | 1.32              | 35000            | F0933 180 M --- 3.0A --                                                                  | 222                             | 100L          |
| 6.97            | 207.96 | 3965             | 1.13              | 35000            | F0933 200 M --- 3.0A --                                                                  | 222                             | 100L          |
| 6.35            | 228.44 | 4356             | 1.03              | 35000            | F0933 225 M --- 3.0A --                                                                  | 222                             | 100L          |
| 5.18            | 279.95 | 5338             | 0.84              | 35000            | F0933 280 M --- 3.0A --                                                                  | 222                             | 100L          |
| 15.47           | 93.70  | 1805             | 3.90              | 43000            | F1023 100 M --- 3.0A --                                                                  | 292                             | 100L          |
| 13.83           | 104.86 | 1999             | 4.00              | 43000            | F1033 100 M --- 3.0A --                                                                  | 311                             | 100L          |
| 12.21           | 118.71 | 2263             | 3.53              | 43000            | F1033 112 M --- 3.0A --                                                                  | 311                             | 100L          |
| 10.97           | 132.14 | 2520             | 3.18              | 43000            | F1033 125 M --- 3.0A --                                                                  | 311                             | 100L          |
| 9.88            | 146.81 | 2799             | 2.86              | 43000            | F1033 160 M --- 3.0A --                                                                  | 311                             | 100L          |
| 8.08            | 179.56 | 3424             | 2.34              | 43000            | F1033 180 M --- 3.0A --                                                                  | 311                             | 100L          |
| 6.99            | 207.38 | 3954             | 2.02              | 43000            | F1033 200 M --- 3.0A --                                                                  | 311                             | 100L          |
| 6.33            | 228.94 | 4365             | 1.83              | 43000            | F1033 225 M --- 3.0A --                                                                  | 311                             | 100L          |
| 5.21            | 278.26 | 5306             | 1.51              | 43000            | F1033 280 M --- 3.0A --                                                                  | 311                             | 100L          |
| 4.60            | 314.94 | 6005             | 1.33              | 43000            | F1033 320 M --- 3.0A --                                                                  | 311                             | 100L          |
| 4.09            | 354.14 | 6752             | 1.18              | 43000            | F1033 360 M --- 3.0A --                                                                  | 311                             | 100L          |
| 3.53            | 411.35 | 7721             | 1.04              | 43000            | F1043 400 M --- 3.0A --                                                                  | 326                             | 100L          |
| 3.17            | 457.90 | 8595             | 0.93              | 43000            | F1043 450 M --- 3.0A --                                                                  | 326                             | 100L          |
| 2.85            | 508.73 | 9549             | 0.84              | 43000            | F1043 500 M --- 3.0A --                                                                  | 326                             | 100L          |

**3.0 kW**

6 POLE

|        |       |      |      |       |                         |     |      |
|--------|-------|------|------|-------|-------------------------|-----|------|
| 152.10 | 6.31  | 184  | 2.59 | 2675  | F0523 6.3 M --- 3.0C -- | 100 | 132S |
| 108.18 | 8.87  | 258  | 1.93 | 3059  | F0523 9.0 M --- 3.0C -- | 100 | 132S |
| 96.52  | 9.95  | 289  | 1.75 | 3195  | F0523 10. M --- 3.0C -- | 100 | 132S |
| 85.99  | 11.16 | 325  | 1.59 | 3330  | F0523 12. M --- 3.0C -- | 100 | 132S |
| 67.71  | 14.18 | 413  | 1.29 | 3598  | F0523 14. M --- 3.0C -- | 100 | 132S |
| 59.73  | 16.07 | 468  | 1.16 | 3736  | F0523 16. M --- 3.0C -- | 100 | 132S |
| 50.08  | 19.17 | 558  | 1.00 | 3930  | F0523 20. M --- 3.0C -- | 100 | 132S |
| 43.50  | 22.07 | 642  | 0.89 | 4098  | F0523 22. M --- 3.0C -- | 100 | 132S |
| 37.40  | 25.67 | 747  | 0.78 | 4266  | F0523 25. M --- 3.0C -- | 100 | 132S |
| 153.03 | 6.27  | 183  | 2.81 | 8549  | F0623 6.3 M --- 3.0C -- | 118 | 132S |
| 108.84 | 8.82  | 257  | 2.61 | 8566  | F0623 9.0 M --- 3.0C -- | 118 | 132S |
| 97.11  | 9.89  | 288  | 2.51 | 8570  | F0623 10. M --- 3.0C -- | 118 | 132S |
| 86.51  | 11.10 | 323  | 2.25 | 8821  | F0623 12. M --- 3.0C -- | 118 | 132S |
| 68.12  | 14.09 | 410  | 2.18 | 8626  | F0623 14. M --- 3.0C -- | 118 | 132S |
| 60.09  | 15.98 | 465  | 1.94 | 8913  | F0623 16. M --- 3.0C -- | 118 | 132S |
| 50.39  | 19.05 | 554  | 1.62 | 9356  | F0623 20. M --- 3.0C -- | 118 | 132S |
| 43.76  | 21.94 | 638  | 1.17 | 10152 | F0623 22. M --- 3.0C -- | 118 | 132S |
| 37.62  | 25.52 | 742  | 1.14 | 10209 | F0623 25. M --- 3.0C -- | 118 | 132S |
| 33.63  | 28.55 | 831  | 1.07 | 10304 | F0623 28. M --- 3.0C -- | 118 | 132S |
| 31.55  | 30.43 | 885  | 1.02 | 10451 | F0623 32. M --- 3.0C -- | 118 | 132S |
| 26.62  | 36.06 | 1049 | 0.86 | 10792 | F0623 36. M --- 3.0C -- | 118 | 132S |
| 24.94  | 38.50 | 1120 | 0.80 | 10956 | F0623 40. M --- 3.0C -- | 118 | 132S |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**3.0 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 66.91           | 14.35  | 417              | 4.02              | 11100            | F0723 14. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 58.85           | 16.31  | 475              | 3.58              | 11569            | F0723 16. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 48.47           | 19.81  | 576              | 2.50              | 13556            | F0723 20. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 44.06           | 21.79  | 634              | 2.37              | 13725            | F0723 22. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 38.34           | 25.04  | 729              | 2.24              | 13751            | F0723 25. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 33.81           | 28.39  | 826              | 2.06              | 13907            | F0723 28. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 30.66           | 31.32  | 911              | 1.87              | 14348            | F0723 32. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 26.77           | 35.86  | 1044             | 1.63              | 14818            | F0723 36. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 23.68           | 40.55  | 1180             | 1.44              | 15287            | F0723 40. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 20.42           | 47.01  | 1368             | 1.24              | 15904            | F0723 50. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 17.12           | 56.07  | 1632             | 1.04              | 16000            | F0723 56. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 15.63           | 61.40  | 1787             | 0.95              | 16000            | F0723 63. _ M _ _ _ 3.0C - -                                                                                                                                                               | 142                             | 132S          |
| 37.60           | 25.53  | 743              | 3.93              | 14068            | F0823 25. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 33.90           | 28.32  | 824              | 2.92              | 16972            | F0823 28. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 30.97           | 30.99  | 902              | 2.56              | 17901            | F0823 32. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 27.38           | 35.06  | 1020             | 2.43              | 18000            | F0823 36. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 24.26           | 39.58  | 1152             | 2.27              | 18000            | F0823 40. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 20.01           | 47.98  | 1396             | 2.03              | 18000            | F0823 50. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 17.16           | 55.95  | 1628             | 1.86              | 18000            | F0823 56. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 15.62           | 61.46  | 1788             | 1.71              | 18000            | F0823 63. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 12.75           | 75.32  | 2192             | 1.39              | 18000            | F0823 71. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 11.67           | 82.25  | 2393             | 1.23              | 18000            | F0823 90. _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 10.14           | 94.71  | 2756             | 0.95              | 18000            | F0823 100 _ M _ _ _ 3.0C - -                                                                                                                                                               | 173                             | 132S          |
| 9.38            | 102.39 | 2949             | 1.03              | 18000            | F0833 100 _ M _ _ _ 3.0C - -                                                                                                                                                               | 180                             | 132S          |
| 8.57            | 112.05 | 3227             | 0.95              | 18000            | F0833 112 _ M _ _ _ 3.0C - -                                                                                                                                                               | 180                             | 132S          |
| 7.57            | 126.77 | 3651             | 0.84              | 18000            | F0833 125 _ M _ _ _ 3.0C - -                                                                                                                                                               | 180                             | 132S          |
| 26.17           | 36.69  | 1068             | 4.04              | 35000            | F0923 36. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 23.55           | 40.76  | 1186             | 3.63              | 35000            | F0923 40. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 19.26           | 49.85  | 1451             | 2.97              | 35000            | F0923 50. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 16.67           | 57.58  | 1675             | 2.57              | 35000            | F0923 56. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 15.10           | 63.56  | 1850             | 2.33              | 35000            | F0923 63. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 12.43           | 77.26  | 2248             | 1.92              | 35000            | F0923 71. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 10.98           | 87.44  | 2544             | 1.69              | 35000            | F0923 90. _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 9.76            | 98.32  | 2861             | 1.51              | 35000            | F0923 100 _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 9.12            | 105.26 | 3063             | 1.41              | 35000            | F0933 100 _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 8.33            | 115.19 | 3352             | 1.29              | 35000            | F0933 112 _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 7.37            | 130.32 | 3792             | 1.14              | 35000            | F0933 125 _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 6.53            | 147.11 | 4280             | 1.01              | 35000            | F0933 160 _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 5.38            | 178.33 | 5189             | 0.83              | 35000            | F0933 180 _ M _ _ _ 3.0C - -                                                                                                                                                               | 242                             | 132S          |
| 12.83           | 74.83  | 2177             | 3.67              | 43000            | F1023 71. _ M _ _ _ 3.0C - -                                                                                                                                                               | 322                             | 132S          |
| 11.01           | 87.21  | 2538             | 3.06              | 43000            | F1023 90. _ M _ _ _ 3.0C - -                                                                                                                                                               | 322                             | 132S          |
| 10.25           | 93.70  | 2726             | 2.58              | 43000            | F1023 100 _ M _ _ _ 3.0C - -                                                                                                                                                               | 322                             | 132S          |
| 9.15            | 104.86 | 2973             | 2.69              | 43000            | F1033 100 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 8.09            | 118.71 | 3366             | 2.38              | 43000            | F1033 112 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 7.26            | 132.14 | 3746             | 2.14              | 43000            | F1033 125 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 6.54            | 146.81 | 4162             | 1.92              | 43000            | F1033 160 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 5.35            | 179.56 | 5091             | 1.57              | 43000            | F1033 180 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 4.63            | 207.38 | 5879             | 1.36              | 43000            | F1033 200 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 4.19            | 228.94 | 6491             | 1.23              | 43000            | F1033 225 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 3.45            | 278.26 | 7889             | 1.01              | 43000            | F1033 280 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 3.05            | 314.94 | 8929             | 0.90              | 43000            | F1033 320 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |
| 2.71            | 354.14 | 10041            | 0.80              | 43000            | F1033 360 _ M _ _ _ 3.0C - -                                                                                                                                                               | 341                             | 132S          |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**4.0 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 229.43          | 6.32   | 162              | 1.50              | 3544             | F0423 6.3 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 65                              | 112M          |
| 163.57          | 8.86   | 228              | 1.28              | 3577             | F0423 9.0 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 65                              | 112M          |
| 148.44          | 9.77   | 251              | 1.22              | 3591             | F0423 10. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 65                              | 112M          |
| 130.72          | 11.09  | 285              | 1.14              | 3686             | F0423 12. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 65                              | 112M          |
| 102.92          | 14.09  | 362              | 0.97              | 3947             | F0423 14. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 65                              | 112M          |
| 90.60           | 16.01  | 411              | 0.87              | 4052             | F0423 16. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 65                              | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 229.74          | 6.31   | 162              | 2.78              | 2010             | F0523 6.3 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 163.40          | 8.87   | 228              | 2.07              | 2376             | F0523 9.0 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 145.79          | 9.95   | 255              | 1.87              | 2500             | F0523 10. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 129.88          | 11.16  | 287              | 1.70              | 2626             | F0523 12. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 102.27          | 14.18  | 364              | 1.38              | 2864             | F0523 14. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 90.22           | 16.07  | 413              | 1.24              | 2987             | F0523 16. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 75.64           | 19.17  | 492              | 1.07              | 3182             | F0523 20. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 65.70           | 22.07  | 567              | 0.95              | 3325             | F0523 22. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
| 56.48           | 25.67  | 659              | 0.83              | 3491             | F0523 25. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 73                              | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 231.14          | 6.27   | 161              | 3.18              | 7497             | F0623 6.3 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 164.40          | 8.82   | 227              | 2.86              | 7275             | F0623 9.0 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 146.68          | 9.89   | 254              | 2.71              | 7171             | F0623 10. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 130.67          | 11.10  | 285              | 2.53              | 7215             | F0623 12. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 102.89          | 14.09  | 362              | 2.25              | 7300             | F0623 14. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 90.77           | 15.98  | 410              | 2.11              | 7364             | F0623 16. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 76.11           | 19.05  | 489              | 1.84              | 7611             | F0623 20. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 66.10           | 21.94  | 563              | 1.32              | 8539             | F0623 22. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 56.83           | 25.52  | 655              | 1.28              | 8509             | F0623 25. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 50.79           | 28.55  | 733              | 1.21              | 8601             | F0623 28. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 47.66           | 30.43  | 782              | 1.15              | 8711             | F0623 32. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 40.21           | 36.06  | 926              | 0.97              | 9071             | F0623 36. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
| 37.66           | 38.50  | 989              | 0.91              | 9216             | F0623 40. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 92                              | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 101.07          | 14.35  | 369              | 4.03              | 9494             | F0723 14. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 88.89           | 16.31  | 419              | 3.56              | 9511             | F0723 16. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 73.20           | 19.81  | 509              | 2.81              | 10943            | F0723 20. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 66.55           | 21.79  | 560              | 2.66              | 11035            | F0723 22. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 57.91           | 25.04  | 643              | 2.51              | 10993            | F0723 25. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 51.07           | 28.39  | 729              | 2.33              | 11202            | F0723 28. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 46.30           | 31.32  | 804              | 2.11              | 11591            | F0723 32. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 40.43           | 35.86  | 921              | 1.85              | 12138            | F0723 36. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 35.76           | 40.55  | 1042             | 1.63              | 12626            | F0723 40. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 30.84           | 47.01  | 1208             | 1.41              | 13186            | F0723 50. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 25.86           | 56.07  | 1440             | 1.18              | 13768            | F0723 56. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 23.61           | 61.40  | 1577             | 1.08              | 14114            | F0723 63. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
| 19.68           | 73.68  | 1893             | 0.82              | 15087            | F0723 71. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 116                             | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 51.20           | 28.32  | 727              | 3.31              | 13436            | F0823 28. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 46.79           | 30.99  | 796              | 2.90              | 14316            | F0823 32. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 41.35           | 35.06  | 901              | 2.75              | 14364            | F0823 36. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 36.64           | 39.58  | 1017             | 2.56              | 14447            | F0823 40. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 30.22           | 47.98  | 1232             | 2.30              | 14628            | F0823 50. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 25.91           | 55.95  | 1437             | 2.11              | 14759            | F0823 56. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 23.59           | 61.46  | 1579             | 1.93              | 14987            | F0823 63. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 19.25           | 75.32  | 1935             | 1.58              | 15819            | F0823 71. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 17.63           | 82.25  | 2113             | 1.40              | 17243            | F0823 90. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
| 15.31           | 94.71  | 2433             | 1.08              | 18000            | F0823 100 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 149                             | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 14.16           | 102.39 | 2603             | 1.17              | 18000            | F0833 100 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 154                             | 112M          |
| 12.94           | 112.05 | 2849             | 1.07              | 18000            | F0833 112 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 154                             | 112M          |
| 11.44           | 126.77 | 3223             | 0.95              | 18000            | F0833 125 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 154                             | 112M          |
| 10.13           | 143.09 | 3638             | 0.84              | 18000            | F0833 160 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 154                             | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 29.09           | 49.85  | 1281             | 3.51              | 35000            | F0923 50. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 218                             | 112M          |
| 25.18           | 57.58  | 1479             | 3.04              | 35000            | F0923 56. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 218                             | 112M          |
| 22.81           | 63.56  | 1633             | 2.76              | 35000            | F0923 63. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 218                             | 112M          |
| 18.77           | 77.26  | 1984             | 2.27              | 35000            | F0923 71. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 218                             | 112M          |
| 16.58           | 87.44  | 2246             | 2.00              | 35000            | F0923 90. _ M _ _ _ 4.0A _ _                                                                                                                                                               | 218                             | 112M          |
| 14.75           | 98.32  | 2526             | 1.78              | 35000            | F0923 100 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 218                             | 112M          |
|                 |        |                  |                   |                  |                                                                                                                                                                                            |                                 |               |
| 13.78           | 105.26 | 2676             | 1.68              | 35000            | F0933 100 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 228                             | 112M          |
| 12.59           | 115.19 | 2929             | 1.54              | 35000            | F0933 112 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 228                             | 112M          |
| 11.13           | 130.32 | 3313             | 1.36              | 35000            | F0933 125 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 228                             | 112M          |
| 9.86            | 147.11 | 3740             | 1.20              | 35000            | F0933 160 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 228                             | 112M          |
| 8.13            | 178.33 | 4534             | 0.99              | 35000            | F0933 180 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 228                             | 112M          |
| 6.97            | 207.96 | 5287             | 0.85              | 35000            | F0933 200 _ M _ _ _ 4.0A _ _                                                                                                                                                               | 228                             | 112M          |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**4.0 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 19.38           | 74.83  | 1922             | 4.16              | 43000            | F1023 71. _ M _ _ _ 4.0A - -                                                                                                                                                               | 298                             | 112M          |
| 16.63           | 87.21  | 2240             | 3.46              | 43000            | F1023 90. _ M _ _ _ 4.0A - -                                                                                                                                                               | 298                             | 112M          |
| 15.47           | 93.70  | 2407             | 2.93              | 43000            | F1023 100 _ M _ _ _ 4.0A - -                                                                                                                                                               | 298                             | 112M          |
| 13.83           | 104.86 | 2666             | 3.00              | 43000            | F1033 100 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 12.21           | 118.71 | 3018             | 2.65              | 43000            | F1033 112 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 10.97           | 132.14 | 3359             | 2.38              | 43000            | F1033 125 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 9.88            | 146.81 | 3732             | 2.14              | 43000            | F1033 160 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 8.08            | 179.56 | 4565             | 1.75              | 43000            | F1033 180 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 6.99            | 207.38 | 5272             | 1.52              | 43000            | F1033 200 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 6.33            | 228.94 | 5820             | 1.37              | 43000            | F1033 225 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 5.21            | 278.26 | 7074             | 1.13              | 43000            | F1033 280 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 4.60            | 314.94 | 8007             | 1.00              | 43000            | F1033 320 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |
| 4.09            | 354.14 | 9003             | 0.89              | 43000            | F1033 360 _ M _ _ _ 4.0A - -                                                                                                                                                               | 317                             | 112M          |

**4.0 kW**

6 POLE

|        |        |      |      |       |                              |     |      |
|--------|--------|------|------|-------|------------------------------|-----|------|
| 152.10 | 6.31   | 245  | 1.94 | 2454  | F0523 6.3 _ M _ _ _ 4.0C - - | 105 | 132M |
| 108.18 | 8.87   | 344  | 1.45 | 2806  | F0523 9.0 _ M _ _ _ 4.0C - - | 105 | 132M |
| 96.52  | 9.95   | 386  | 1.31 | 2930  | F0523 10. _ M _ _ _ 4.0C - - | 105 | 132M |
| 85.99  | 11.16  | 433  | 1.19 | 3055  | F0523 12. _ M _ _ _ 4.0C - - | 105 | 132M |
| 67.71  | 14.18  | 550  | 0.97 | 3301  | F0523 14. _ M _ _ _ 4.0C - - | 105 | 132M |
| 59.73  | 16.07  | 624  | 0.87 | 3427  | F0523 16. _ M _ _ _ 4.0C - - | 105 | 132M |
| 153.03 | 6.27   | 243  | 2.11 | 7842  | F0623 6.3 _ M _ _ _ 4.0C - - | 123 | 132M |
| 108.84 | 8.82   | 342  | 1.96 | 7857  | F0623 9.0 _ M _ _ _ 4.0C - - | 123 | 132M |
| 97.11  | 9.89   | 384  | 1.89 | 7862  | F0623 10. _ M _ _ _ 4.0C - - | 123 | 132M |
| 86.51  | 11.10  | 431  | 1.68 | 8091  | F0623 12. _ M _ _ _ 4.0C - - | 123 | 132M |
| 68.12  | 14.09  | 547  | 1.63 | 7913  | F0623 14. _ M _ _ _ 4.0C - - | 123 | 132M |
| 60.09  | 15.98  | 620  | 1.45 | 8176  | F0623 16. _ M _ _ _ 4.0C - - | 123 | 132M |
| 50.39  | 19.05  | 739  | 1.22 | 8582  | F0623 20. _ M _ _ _ 4.0C - - | 123 | 132M |
| 43.76  | 21.94  | 851  | 0.88 | 9312  | F0623 22. _ M _ _ _ 4.0C - - | 123 | 132M |
| 37.62  | 25.52  | 990  | 0.85 | 9365  | F0623 25. _ M _ _ _ 4.0C - - | 123 | 132M |
| 33.63  | 28.55  | 1108 | 0.80 | 9452  | F0623 28. _ M _ _ _ 4.0C - - | 123 | 132M |
| 107.95 | 8.89   | 345  | 3.91 | 9953  | F0723 9.0 _ M _ _ _ 4.0C - - | 147 | 132M |
| 96.10  | 9.99   | 388  | 3.69 | 9971  | F0723 10. _ M _ _ _ 4.0C - - | 147 | 132M |
| 87.40  | 10.98  | 426  | 3.57 | 9915  | F0723 12. _ M _ _ _ 4.0C - - | 147 | 132M |
| 66.91  | 14.35  | 557  | 3.02 | 10182 | F0723 14. _ M _ _ _ 4.0C - - | 147 | 132M |
| 58.85  | 16.31  | 633  | 2.69 | 10613 | F0723 16. _ M _ _ _ 4.0C - - | 147 | 132M |
| 48.47  | 19.81  | 768  | 1.87 | 12435 | F0723 20. _ M _ _ _ 4.0C - - | 147 | 132M |
| 44.06  | 21.79  | 845  | 1.77 | 12590 | F0723 22. _ M _ _ _ 4.0C - - | 147 | 132M |
| 38.34  | 25.04  | 971  | 1.68 | 12614 | F0723 25. _ M _ _ _ 4.0C - - | 147 | 132M |
| 33.81  | 28.39  | 1101 | 1.54 | 12757 | F0723 28. _ M _ _ _ 4.0C - - | 147 | 132M |
| 30.66  | 31.32  | 1215 | 1.40 | 13162 | F0723 32. _ M _ _ _ 4.0C - - | 147 | 132M |
| 26.77  | 35.86  | 1391 | 1.22 | 13593 | F0723 36. _ M _ _ _ 4.0C - - | 147 | 132M |
| 23.68  | 40.55  | 1573 | 1.08 | 14023 | F0723 40. _ M _ _ _ 4.0C - - | 147 | 132M |
| 20.42  | 47.01  | 1824 | 0.93 | 14589 | F0723 50. _ M _ _ _ 4.0C - - | 147 | 132M |
| 17.12  | 56.07  | 2175 | 0.78 | 14859 | F0723 56. _ M _ _ _ 4.0C - - | 147 | 132M |
| 49.32  | 19.46  | 755  | 3.73 | 11611 | F0823 20. _ M _ _ _ 4.0C - - | 178 | 132M |
| 43.77  | 21.93  | 851  | 3.37 | 12169 | F0823 22. _ M _ _ _ 4.0C - - | 178 | 132M |
| 37.60  | 25.53  | 991  | 2.95 | 12904 | F0823 25. _ M _ _ _ 4.0C - - | 178 | 132M |
| 33.90  | 28.32  | 1099 | 2.19 | 15568 | F0823 28. _ M _ _ _ 4.0C - - | 178 | 132M |
| 30.97  | 30.99  | 1202 | 1.92 | 16421 | F0823 32. _ M _ _ _ 4.0C - - | 178 | 132M |
| 27.38  | 35.06  | 1360 | 1.82 | 16524 | F0823 36. _ M _ _ _ 4.0C - - | 178 | 132M |
| 24.26  | 39.58  | 1536 | 1.70 | 16650 | F0823 40. _ M _ _ _ 4.0C - - | 178 | 132M |
| 20.01  | 47.98  | 1861 | 1.52 | 16895 | F0823 50. _ M _ _ _ 4.0C - - | 178 | 132M |
| 17.16  | 55.95  | 2171 | 1.40 | 17131 | F0823 56. _ M _ _ _ 4.0C - - | 178 | 132M |
| 15.62  | 61.46  | 2385 | 1.28 | 17119 | F0823 63. _ M _ _ _ 4.0C - - | 178 | 132M |
| 12.75  | 75.32  | 2922 | 1.04 | 17321 | F0823 71. _ M _ _ _ 4.0C - - | 178 | 132M |
| 11.67  | 82.25  | 3191 | 0.92 | 17581 | F0823 90. _ M _ _ _ 4.0C - - | 178 | 132M |
| 32.97  | 29.11  | 1130 | 3.82 | 35000 | F0923 28. _ M _ _ _ 4.0C - - | 247 | 132M |
| 29.13  | 32.96  | 1279 | 3.37 | 35000 | F0923 32. _ M _ _ _ 4.0C - - | 247 | 132M |
| 26.17  | 36.69  | 1423 | 3.03 | 35000 | F0923 36. _ M _ _ _ 4.0C - - | 247 | 132M |
| 23.55  | 40.76  | 1581 | 2.73 | 35000 | F0923 40. _ M _ _ _ 4.0C - - | 247 | 132M |
| 19.26  | 49.85  | 1934 | 2.23 | 35000 | F0923 50. _ M _ _ _ 4.0C - - | 247 | 132M |
| 16.67  | 57.58  | 2234 | 1.93 | 35000 | F0923 56. _ M _ _ _ 4.0C - - | 247 | 132M |
| 15.10  | 63.56  | 2466 | 1.75 | 35000 | F0923 63. _ M _ _ _ 4.0C - - | 247 | 132M |
| 12.43  | 77.26  | 2997 | 1.44 | 35000 | F0923 71. _ M _ _ _ 4.0C - - | 247 | 132M |
| 10.98  | 87.44  | 3392 | 1.27 | 35000 | F0923 90. _ M _ _ _ 4.0C - - | 247 | 132M |
| 9.76   | 98.32  | 3815 | 1.13 | 35000 | F0923 100 _ M _ _ _ 4.0C - - | 247 | 132M |
| 9.12   | 105.26 | 4084 | 1.06 | 35000 | F0933 100 _ M _ _ _ 4.0C - - | 256 | 132M |
| 8.33   | 115.19 | 4469 | 0.96 | 35000 | F0933 112 _ M _ _ _ 4.0C - - | 256 | 132M |
| 7.37   | 130.32 | 5056 | 0.85 | 35000 | F0933 125 _ M _ _ _ 4.0C - - | 256 | 132M |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**4.0 kW**

6 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 17.15           | 55.97  | 2171             | 3.68              | 43000            | F1023 56. _ M _ _ _ 4.0C _ _                                                             | 327                             | 132M          |
| 14.89           | 64.49  | 2502             | 3.20              | 43000            | F1023 63. _ M _ _ _ 4.0C _ _                                                             | 327                             | 132M          |
| 12.83           | 74.83  | 2903             | 2.76              | 43000            | F1023 71. _ M _ _ _ 4.0C _ _                                                             | 327                             | 132M          |
| 11.01           | 87.21  | 3384             | 2.29              | 43000            | F1023 90. _ M _ _ _ 4.0C _ _                                                             | 327                             | 132M          |
| 10.25           | 93.70  | 3635             | 1.94              | 43000            | F1023 100 _ M _ _ _ 4.0C _ _                                                             | 327                             | 132M          |
| 9.15            | 104.86 | 4027             | 1.99              | 43000            | F1033 100 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |
| 8.09            | 118.71 | 4558             | 1.76              | 43000            | F1033 112 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |
| 7.26            | 132.14 | 5074             | 1.58              | 43000            | F1033 125 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |
| 6.54            | 146.81 | 5637             | 1.42              | 43000            | F1033 160 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |
| 5.35            | 179.56 | 6895             | 1.16              | 43000            | F1033 180 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |
| 4.63            | 207.38 | 7963             | 1.00              | 43000            | F1033 200 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |
| 4.19            | 228.94 | 8791             | 0.91              | 43000            | F1033 225 _ M _ _ _ 4.0C _ _                                                             | 346                             | 132M          |

**5.5 kW**

4 POLE

|        |        |      |      |       |                              |     |      |
|--------|--------|------|------|-------|------------------------------|-----|------|
| 229.74 | 6.31   | 223  | 2.02 | 1827  | F0523 6.3 _ M _ _ _ 5.5A _ _ | 100 | 132S |
| 163.40 | 8.87   | 313  | 1.51 | 2160  | F0523 9.0 _ M _ _ _ 5.5A _ _ | 100 | 132S |
| 145.79 | 9.95   | 351  | 1.36 | 2272  | F0523 10. _ M _ _ _ 5.5A _ _ | 100 | 132S |
| 129.88 | 11.16  | 394  | 1.24 | 2386  | F0523 12. _ M _ _ _ 5.5A _ _ | 100 | 132S |
| 102.27 | 14.18  | 501  | 1.00 | 2603  | F0523 14. _ M _ _ _ 5.5A _ _ | 100 | 132S |
| 90.22  | 16.07  | 568  | 0.90 | 2715  | F0523 16. _ M _ _ _ 5.5A _ _ | 100 | 132S |
| 231.14 | 6.27   | 222  | 2.31 | 6814  | F0623 6.3 _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 164.40 | 8.82   | 312  | 2.08 | 6612  | F0623 9.0 _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 146.68 | 9.89   | 349  | 1.97 | 6518  | F0623 10. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 130.67 | 11.10  | 392  | 1.84 | 6557  | F0623 12. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 102.89 | 14.09  | 498  | 1.64 | 6635  | F0623 14. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 90.77  | 15.98  | 564  | 1.53 | 6693  | F0623 16. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 76.11  | 19.05  | 673  | 1.34 | 6918  | F0623 20. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 66.10  | 21.94  | 775  | 0.96 | 7761  | F0623 22. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 56.83  | 25.52  | 901  | 0.93 | 7733  | F0623 25. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 50.79  | 28.55  | 1008 | 0.88 | 7817  | F0623 28. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 47.66  | 30.43  | 1075 | 0.84 | 7917  | F0623 32. _ M _ _ _ 5.5A _ _ | 118 | 132S |
| 163.05 | 8.89   | 314  | 3.82 | 8967  | F0723 9.0 _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 145.15 | 9.99   | 353  | 3.60 | 8811  | F0723 10. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 132.01 | 10.98  | 388  | 3.45 | 8703  | F0723 12. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 101.07 | 14.35  | 507  | 2.93 | 8629  | F0723 14. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 88.89  | 16.31  | 576  | 2.59 | 8644  | F0723 16. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 73.20  | 19.81  | 700  | 2.04 | 9946  | F0723 20. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 66.55  | 21.79  | 770  | 1.93 | 10030 | F0723 22. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 57.91  | 25.04  | 884  | 1.83 | 9991  | F0723 25. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 51.07  | 28.39  | 1003 | 1.70 | 10181 | F0723 28. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 46.30  | 31.32  | 1106 | 1.54 | 10535 | F0723 32. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 40.43  | 35.86  | 1267 | 1.34 | 11032 | F0723 36. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 35.76  | 40.55  | 1432 | 1.19 | 11475 | F0723 40. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 30.84  | 47.01  | 1660 | 1.02 | 11985 | F0723 50. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 25.86  | 56.07  | 1980 | 0.86 | 12514 | F0723 56. _ M _ _ _ 5.5A _ _ | 142 | 132S |
| 74.49  | 19.46  | 687  | 3.72 | 9450  | F0823 20. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 66.11  | 21.93  | 775  | 3.38 | 9801  | F0823 22. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 56.79  | 25.53  | 902  | 3.06 | 10001 | F0823 25. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 51.20  | 28.32  | 1000 | 2.41 | 12212 | F0823 28. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 46.79  | 30.99  | 1095 | 2.11 | 13012 | F0823 32. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 41.35  | 35.06  | 1238 | 2.00 | 13055 | F0823 36. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 36.64  | 39.58  | 1398 | 1.86 | 13131 | F0823 40. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 30.22  | 47.98  | 1695 | 1.67 | 13296 | F0823 50. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 25.91  | 55.95  | 1976 | 1.53 | 13414 | F0823 56. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 23.59  | 61.46  | 2171 | 1.41 | 13621 | F0823 63. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 19.25  | 75.32  | 2660 | 1.15 | 14378 | F0823 71. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 17.63  | 82.25  | 2905 | 1.02 | 15672 | F0823 90. _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 15.31  | 94.71  | 3345 | 0.79 | 16747 | F0823 100 _ M _ _ _ 5.5A _ _ | 173 | 132S |
| 43.99  | 32.96  | 1164 | 3.87 | 35000 | F0923 32. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 39.52  | 36.69  | 1296 | 3.47 | 35000 | F0923 36. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 35.57  | 40.76  | 1440 | 3.13 | 35000 | F0923 40. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 29.09  | 49.85  | 1761 | 2.56 | 35000 | F0923 50. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 25.18  | 57.58  | 2034 | 2.21 | 35000 | F0923 56. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 22.81  | 63.56  | 2245 | 2.00 | 35000 | F0923 63. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 18.77  | 77.26  | 2729 | 1.65 | 35000 | F0923 71. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 16.58  | 87.44  | 3088 | 1.46 | 35000 | F0923 90. _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 14.75  | 98.32  | 3473 | 1.30 | 35000 | F0923 100 _ M _ _ _ 5.5A _ _ | 242 | 132S |
| 13.78  | 105.26 | 3718 | 1.21 | 35000 | F0933 100 _ M _ _ _ 5.5A _ _ | 251 | 132S |
| 12.59  | 115.19 | 4068 | 1.11 | 35000 | F0933 112 _ M _ _ _ 5.5A _ _ | 251 | 132S |
| 11.13  | 130.32 | 4603 | 0.98 | 35000 | F0933 125 _ M _ _ _ 5.5A _ _ | 251 | 132S |
| 9.86   | 147.11 | 5196 | 0.87 | 35000 | F0933 160 _ M _ _ _ 5.5A _ _ | 251 | 132S |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**5.5 kW**

4 POLE

**5.5 kW**

6 POLE

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 25.91           | 55.97  | 1977             | 4.05              | 43000            | F1023 56. _ M _ _ _ 5.5A - -                                                             | 322                             | 132S          |
| 22.49           | 64.49  | 2278             | 3.51              | 43000            | F1023 63. _ M _ _ _ 5.5A - -                                                             | 322                             | 132S          |
| 19.38           | 74.83  | 2643             | 3.03              | 43000            | F1023 71. _ M _ _ _ 5.5A - -                                                             | 322                             | 132S          |
| 16.63           | 87.21  | 3080             | 2.52              | 43000            | F1023 90. _ M _ _ _ 5.5A - -                                                             | 322                             | 132S          |
| 15.47           | 93.70  | 3309             | 2.13              | 43000            | F1023 100 _ M _ _ _ 5.5A - -                                                             | 322                             | 132S          |
| 13.83           | 104.86 | 3666             | 2.18              | 43000            | F1033 100 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 12.21           | 118.71 | 4150             | 1.93              | 43000            | F1033 112 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 10.97           | 132.14 | 4619             | 1.73              | 43000            | F1033 125 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 9.88            | 146.81 | 5132             | 1.56              | 43000            | F1033 160 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 8.08            | 179.56 | 6277             | 1.27              | 43000            | F1033 180 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 6.99            | 207.38 | 7249             | 1.10              | 43000            | F1033 200 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 6.33            | 228.94 | 8003             | 1.00              | 43000            | F1033 225 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 5.21            | 278.26 | 9727             | 0.82              | 43000            | F1033 280 _ M _ _ _ 5.5A - -                                                             | 341                             | 132S          |
| 152.10          | 6.31   | 337              | 1.41              | 2230             | F0523 6.3 _ M _ _ _ 5.5C - -                                                             | 105                             | 132M          |
| 108.18          | 8.87   | 473              | 1.05              | 2550             | F0523 9.0 _ M _ _ _ 5.5C - -                                                             | 105                             | 132M          |
| 96.52           | 9.95   | 531              | 0.96              | 2663             | F0523 10. _ M _ _ _ 5.5C - -                                                             | 105                             | 132M          |
| 85.99           | 11.16  | 596              | 0.86              | 2776             | F0523 12. _ M _ _ _ 5.5C - -                                                             | 105                             | 132M          |
| 153.03          | 6.27   | 335              | 1.53              | 7127             | F0623 6.3 _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 108.84          | 8.82   | 471              | 1.43              | 7141             | F0623 9.0 _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 97.11           | 9.89   | 527              | 1.37              | 7145             | F0623 10. _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 86.51           | 11.10  | 592              | 1.22              | 7354             | F0623 12. _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 68.12           | 14.09  | 752              | 1.19              | 7192             | F0623 14. _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 60.09           | 15.98  | 852              | 1.06              | 7431             | F0623 16. _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 50.39           | 19.05  | 1016             | 0.89              | 7800             | F0623 20. _ M _ _ _ 5.5C - -                                                             | 123                             | 132M          |
| 149.52          | 6.42   | 343              | 3.36              | 9262             | F0723 6.3 _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 107.95          | 8.89   | 474              | 2.85              | 9046             | F0723 9.0 _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 96.10           | 9.99   | 533              | 2.68              | 9063             | F0723 10. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 87.40           | 10.98  | 586              | 2.59              | 9011             | F0723 12. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 66.91           | 14.35  | 765              | 2.20              | 9254             | F0723 14. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 58.85           | 16.31  | 870              | 1.95              | 9646             | F0723 16. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 48.47           | 19.81  | 1057             | 1.36              | 11302            | F0723 20. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 44.06           | 21.79  | 1162             | 1.29              | 11443            | F0723 22. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 38.34           | 25.04  | 1336             | 1.22              | 11465            | F0723 25. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 33.81           | 28.39  | 1515             | 1.12              | 11595            | F0723 28. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 30.66           | 31.32  | 1671             | 1.02              | 11963            | F0723 32. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 26.77           | 35.86  | 1913             | 0.89              | 12354            | F0723 36. _ M _ _ _ 5.5C - -                                                             | 147                             | 132M          |
| 87.80           | 10.93  | 583              | 4.03              | 9615             | F0823 12. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 67.90           | 14.14  | 754              | 3.47              | 9676             | F0823 14. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 60.48           | 15.87  | 847              | 3.22              | 9761             | F0823 16. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 49.32           | 19.46  | 1038             | 2.72              | 10553            | F0823 20. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 43.77           | 21.93  | 1170             | 2.45              | 11060            | F0823 22. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 37.60           | 25.53  | 1362             | 2.14              | 11729            | F0823 25. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 33.90           | 28.32  | 1511             | 1.60              | 14150            | F0823 28. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 30.97           | 30.99  | 1653             | 1.40              | 14925            | F0823 32. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 27.38           | 35.06  | 1870             | 1.33              | 15019            | F0823 36. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 24.26           | 39.58  | 2111             | 1.24              | 15133            | F0823 40. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 20.01           | 47.98  | 2559             | 1.11              | 15356            | F0823 50. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 17.16           | 55.95  | 2985             | 1.02              | 15570            | F0823 56. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 15.62           | 61.46  | 3279             | 0.93              | 15559            | F0823 63. _ M _ _ _ 5.5C - -                                                             | 178                             | 132M          |
| 32.97           | 29.11  | 1553             | 2.78              | 35000            | F0923 28. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 29.13           | 32.96  | 1758             | 2.45              | 35000            | F0923 32. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 26.17           | 36.69  | 1957             | 2.20              | 35000            | F0923 36. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 23.55           | 40.76  | 2174             | 1.98              | 35000            | F0923 40. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 19.26           | 49.85  | 2659             | 1.62              | 35000            | F0923 50. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 16.67           | 57.58  | 3071             | 1.40              | 35000            | F0923 56. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 15.10           | 63.56  | 3391             | 1.27              | 35000            | F0923 63. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 12.43           | 77.26  | 4121             | 1.05              | 35000            | F0923 71. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 10.98           | 87.44  | 4665             | 0.92              | 35000            | F0923 90. _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 9.76            | 98.32  | 5245             | 0.82              | 35000            | F0923 100 _ M _ _ _ 5.5C - -                                                             | 247                             | 132M          |
| 24.46           | 39.25  | 2094             | 3.82              | 43000            | F1023 40. _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 20.70           | 46.38  | 2474             | 3.23              | 43000            | F1023 50. _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 17.15           | 55.97  | 2986             | 2.68              | 43000            | F1023 56. _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 14.89           | 64.49  | 3440             | 2.33              | 43000            | F1023 63. _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 12.83           | 74.83  | 3992             | 2.00              | 43000            | F1023 71. _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 11.01           | 87.21  | 4653             | 1.67              | 43000            | F1023 90. _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 10.25           | 93.70  | 4999             | 1.41              | 43000            | F1023 100 _ M _ _ _ 5.5C - -                                                             | 327                             | 132M          |
| 9.15            | 104.86 | 5537             | 1.44              | 43000            | F1033 100 _ M _ _ _ 5.5C - -                                                             | 346                             | 132M          |
| 8.09            | 118.71 | 6268             | 1.28              | 43000            | F1033 112 _ M _ _ _ 5.5C - -                                                             | 346                             | 132M          |
| 7.26            | 132.14 | 6977             | 1.15              | 43000            | F1033 125 _ M _ _ _ 5.5C - -                                                             | 346                             | 132M          |
| 6.54            | 146.81 | 7751             | 1.03              | 43000            | F1033 160 _ M _ _ _ 5.5C - -                                                             | 346                             | 132M          |
| 5.35            | 179.56 | 9480             | 0.84              | 43000            | F1033 180 _ M _ _ _ 5.5C - -                                                             | 346                             | 132M          |

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**7.5 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                                                                                                                           | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span style="border: 1px solid black; padding: 0 2px;">1</span> - <span style="border: 1px solid black; padding: 0 2px;">20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 229.74          | 6.31   | 304              | 1.48              | 1665             | F0523 6.3 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 105                             | 132M          |
| 163.40          | 8.87   | 427              | 1.10              | 1968             | F0523 9.0 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 105                             | 132M          |
| 145.79          | 9.95   | 479              | 1.00              | 2070             | F0523 10. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 105                             | 132M          |
| 129.88          | 11.16  | 538              | 0.91              | 2174             | F0523 12. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 105                             | 132M          |
| 231.14          | 6.27   | 302              | 1.69              | 6208             | F0623 6.3 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 164.40          | 8.82   | 425              | 1.52              | 6024             | F0623 9.0 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 146.68          | 9.89   | 476              | 1.44              | 5939             | F0623 10. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 130.67          | 11.10  | 534              | 1.35              | 5975             | F0623 12. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 102.89          | 14.09  | 679              | 1.20              | 6045             | F0623 14. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 90.77           | 15.98  | 769              | 1.12              | 6099             | F0623 16. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 76.11           | 19.05  | 918              | 0.98              | 6303             | F0623 20. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 123                             | 132M          |
| 225.84          | 6.42   | 309              | 3.29              | 8576             | F0723 6.3 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 163.05          | 8.89   | 428              | 2.80              | 8170             | F0723 9.0 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 145.15          | 9.99   | 481              | 2.64              | 8028             | F0723 10. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 132.01          | 10.98  | 529              | 2.53              | 7929             | F0723 12. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 101.07          | 14.35  | 691              | 2.15              | 7862             | F0723 14. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 88.89           | 16.31  | 786              | 1.90              | 7876             | F0723 16. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 73.20           | 19.81  | 954              | 1.50              | 9063             | F0723 20. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 66.55           | 21.79  | 1049             | 1.42              | 9139             | F0723 22. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 57.91           | 25.04  | 1206             | 1.34              | 9103             | F0723 25. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 51.07           | 28.39  | 1367             | 1.24              | 9277             | F0723 28. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 46.30           | 31.32  | 1508             | 1.13              | 9599             | F0723 32. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 40.43           | 35.86  | 1727             | 0.98              | 10052            | F0723 36. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 35.76           | 40.55  | 1953             | 0.87              | 10456            | F0723 40. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 147                             | 132M          |
| 132.61          | 10.93  | 527              | 3.91              | 8431             | F0823 12. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 102.56          | 14.14  | 681              | 3.36              | 8202             | F0823 14. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 91.35           | 15.87  | 764              | 3.13              | 8376             | F0823 16. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 74.49           | 19.46  | 937              | 2.73              | 8610             | F0823 20. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 66.11           | 21.93  | 1056             | 2.48              | 8930             | F0823 22. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 56.79           | 25.53  | 1230             | 2.24              | 9113             | F0823 25. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 51.20           | 28.32  | 1364             | 1.77              | 11127            | F0823 28. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 46.79           | 30.99  | 1493             | 1.55              | 11856            | F0823 32. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 41.35           | 35.06  | 1689             | 1.47              | 11895            | F0823 36. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 36.64           | 39.58  | 1906             | 1.36              | 11964            | F0823 40. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 30.22           | 47.98  | 2311             | 1.22              | 12114            | F0823 50. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 25.91           | 55.95  | 2695             | 1.12              | 12222            | F0823 56. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 23.59           | 61.46  | 2960             | 1.03              | 12411            | F0823 63. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 19.25           | 75.32  | 3628             | 0.84              | 13100            | F0823 71. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 178                             | 132M          |
| 49.80           | 29.11  | 1402             | 3.21              | 35000            | F0923 28. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 43.99           | 32.96  | 1587             | 2.83              | 35000            | F0923 32. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 39.52           | 36.69  | 1767             | 2.55              | 35000            | F0923 36. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 35.57           | 40.76  | 1963             | 2.29              | 35000            | F0923 40. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 29.09           | 49.85  | 2401             | 1.87              | 35000            | F0923 50. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 25.18           | 57.58  | 2773             | 1.62              | 35000            | F0923 56. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 22.81           | 63.56  | 3061             | 1.47              | 35000            | F0923 63. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 18.77           | 77.26  | 3721             | 1.21              | 35000            | F0923 71. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 16.58           | 87.44  | 4211             | 1.07              | 35000            | F0923 90. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 14.75           | 98.32  | 4735             | 0.95              | 35000            | F0923 100 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 247                             | 132M          |
| 31.26           | 46.38  | 2234             | 3.58              | 43000            | F1023 50. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 327                             | 132M          |
| 25.91           | 55.97  | 2695             | 2.97              | 43000            | F1023 56. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 327                             | 132M          |
| 22.49           | 64.49  | 3106             | 2.58              | 43000            | F1023 63. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 327                             | 132M          |
| 19.38           | 74.83  | 3604             | 2.22              | 43000            | F1023 71. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 327                             | 132M          |
| 16.63           | 87.21  | 4200             | 1.85              | 43000            | F1023 90. _ M _ _ _ 7.5A _ _                                                                                                                                                               | 327                             | 132M          |
| 15.47           | 93.70  | 4513             | 1.56              | 43000            | F1023 100 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 327                             | 132M          |
| 13.83           | 104.86 | 4999             | 1.60              | 43000            | F1033 100 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 346                             | 132M          |
| 12.21           | 118.71 | 5659             | 1.41              | 43000            | F1033 112 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 346                             | 132M          |
| 10.97           | 132.14 | 6299             | 1.27              | 43000            | F1033 125 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 346                             | 132M          |
| 9.88            | 146.81 | 6998             | 1.14              | 43000            | F1033 160 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 346                             | 132M          |
| 8.08            | 179.56 | 8559             | 0.93              | 43000            | F1033 180 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 346                             | 132M          |
| 6.99            | 207.38 | 9885             | 0.81              | 43000            | F1033 200 _ M _ _ _ 7.5A _ _                                                                                                                                                               | 346                             | 132M          |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**7.5 kW**

6 POLE

| N2<br>rpm       | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|-------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 151.08          | 6.42  | 462              | 2.49              | 8465             | F0723 6.3 M --- 7.5C --                                                                  | 198                             | 160M          |
| 109.07          | 8.89  | 640              | 2.11              | 8268             | F0723 9.0 M --- 7.5C --                                                                  | 198                             | 160M          |
| 97.10           | 9.99  | 719              | 1.99              | 8283             | F0723 10. M --- 7.5C --                                                                  | 198                             | 160M          |
| 88.31           | 10.98 | 791              | 1.92              | 8236             | F0723 12. M --- 7.5C --                                                                  | 198                             | 160M          |
| 67.61           | 14.35 | 1033             | 1.63              | 8458             | F0723 14. M --- 7.5C --                                                                  | 198                             | 160M          |
| 59.46           | 16.31 | 1174             | 1.45              | 8816             | F0723 16. M --- 7.5C --                                                                  | 198                             | 160M          |
| 48.97           | 19.81 | 1426             | 1.01              | 10330            | F0723 20. M --- 7.5C --                                                                  | 198                             | 160M          |
| 44.52           | 21.79 | 1569             | 0.96              | 10459            | F0723 22. M --- 7.5C --                                                                  | 198                             | 160M          |
| 38.74           | 25.04 | 1803             | 0.90              | 10479            | F0723 25. M --- 7.5C --                                                                  | 198                             | 160M          |
| 34.17           | 28.39 | 2044             | 0.83              | 10598            | F0723 28. M --- 7.5C --                                                                  | 198                             | 160M          |
| 155.39          | 6.24  | 449              | 3.92              | 9338             | F0823 6.3 M --- 7.5C --                                                                  | 235                             | 160M          |
| 109.62          | 8.85  | 637              | 3.34              | 8905             | F0823 9.0 M --- 7.5C --                                                                  | 235                             | 160M          |
| 98.68           | 9.83  | 708              | 3.17              | 8831             | F0823 10. M --- 7.5C --                                                                  | 235                             | 160M          |
| 88.71           | 10.93 | 787              | 2.99              | 8788             | F0823 12. M --- 7.5C --                                                                  | 235                             | 160M          |
| 68.61           | 14.14 | 1018             | 2.57              | 8844             | F0823 14. M --- 7.5C --                                                                  | 235                             | 160M          |
| 61.11           | 15.87 | 1143             | 2.39              | 8921             | F0823 16. M --- 7.5C --                                                                  | 235                             | 160M          |
| 49.83           | 19.46 | 1401             | 2.01              | 9645             | F0823 20. M --- 7.5C --                                                                  | 235                             | 160M          |
| 44.22           | 21.93 | 1579             | 1.82              | 10109            | F0823 22. M --- 7.5C --                                                                  | 235                             | 160M          |
| 37.99           | 25.53 | 1838             | 1.59              | 10720            | F0823 25. M --- 7.5C --                                                                  | 235                             | 160M          |
| 34.25           | 28.32 | 2039             | 1.18              | 12933            | F0823 28. M --- 7.5C --                                                                  | 235                             | 160M          |
| 31.30           | 30.99 | 2231             | 1.04              | 13641            | F0823 32. M --- 7.5C --                                                                  | 235                             | 160M          |
| 27.66           | 35.06 | 2524             | 0.98              | 13727            | F0823 36. M --- 7.5C --                                                                  | 235                             | 160M          |
| 24.51           | 39.58 | 2849             | 0.92              | 13831            | F0823 40. M --- 7.5C --                                                                  | 235                             | 160M          |
| 20.22           | 47.98 | 3454             | 0.82              | 14035            | F0823 50. M --- 7.5C --                                                                  | 235                             | 160M          |
| 33.32           | 29.11 | 2096             | 2.06              | 35000            | F0923 28. M --- 7.5C --                                                                  | 301                             | 160M          |
| 29.43           | 32.96 | 2373             | 1.82              | 35000            | F0923 32. M --- 7.5C --                                                                  | 301                             | 160M          |
| 26.44           | 36.69 | 2641             | 1.63              | 35000            | F0923 36. M --- 7.5C --                                                                  | 301                             | 160M          |
| 23.80           | 40.76 | 2935             | 1.47              | 35000            | F0923 40. M --- 7.5C --                                                                  | 301                             | 160M          |
| 19.46           | 49.85 | 3589             | 1.20              | 35000            | F0923 50. M --- 7.5C --                                                                  | 301                             | 160M          |
| 16.85           | 57.58 | 4145             | 1.04              | 35000            | F0923 56. M --- 7.5C --                                                                  | 301                             | 160M          |
| 15.26           | 63.56 | 4576             | 0.94              | 35000            | F0923 63. M --- 7.5C --                                                                  | 301                             | 160M          |
| 33.37           | 29.07 | 2093             | 3.20              | 43000            | F1023 28. M --- 7.5C --                                                                  | 383                             | 160M          |
| 30.03           | 32.30 | 2326             | 3.20              | 43000            | F1023 32. M --- 7.5C --                                                                  | 383                             | 160M          |
| 27.46           | 35.32 | 2543             | 3.15              | 43000            | F1023 36. M --- 7.5C --                                                                  | 383                             | 160M          |
| 24.72           | 39.25 | 2826             | 2.83              | 43000            | F1023 40. M --- 7.5C --                                                                  | 383                             | 160M          |
| 20.91           | 46.38 | 3339             | 2.40              | 43000            | F1023 50. M --- 7.5C --                                                                  | 383                             | 160M          |
| 17.33           | 55.97 | 4029             | 1.99              | 43000            | F1023 56. M --- 7.5C --                                                                  | 383                             | 160M          |
| 15.04           | 64.49 | 4643             | 1.72              | 43000            | F1023 63. M --- 7.5C --                                                                  | 383                             | 160M          |
| 12.96           | 74.83 | 5387             | 1.49              | 43000            | F1023 71. M --- 7.5C --                                                                  | 383                             | 160M          |
| 11.12           | 87.21 | 6279             | 1.24              | 43000            | F1023 90. M --- 7.5C --                                                                  | 383                             | 160M          |
| 10.35           | 93.70 | 6746             | 1.04              | 43000            | F1023 100 M --- 7.5C --                                                                  | 383                             | 160M          |

**11.0 kW**

4 POLE

|        |       |      |      |       |                         |     |      |
|--------|-------|------|------|-------|-------------------------|-----|------|
| 227.40 | 6.42  | 450  | 2.26 | 7661  | F0723 6.3 M --- 11.A -- | 198 | 160M |
| 164.17 | 8.89  | 624  | 1.92 | 7299  | F0723 9.0 M --- 11.A -- | 198 | 160M |
| 146.15 | 9.99  | 701  | 1.81 | 7171  | F0723 10. M --- 11.A -- | 198 | 160M |
| 132.92 | 10.98 | 771  | 1.74 | 7083  | F0723 12. M --- 11.A -- | 198 | 160M |
| 101.76 | 14.35 | 1007 | 1.48 | 7023  | F0723 14. M --- 11.A -- | 198 | 160M |
| 89.50  | 16.31 | 1144 | 1.30 | 7036  | F0723 16. M --- 11.A -- | 198 | 160M |
| 73.71  | 19.81 | 1390 | 1.03 | 8096  | F0723 20. M --- 11.A -- | 198 | 160M |
| 67.01  | 21.79 | 1529 | 0.97 | 8164  | F0723 22. M --- 11.A -- | 198 | 160M |
| 58.31  | 25.04 | 1756 | 0.92 | 8132  | F0723 25. M --- 11.A -- | 198 | 160M |
| 51.42  | 28.39 | 1992 | 0.85 | 8287  | F0723 28. M --- 11.A -- | 198 | 160M |
| 233.89 | 6.24  | 438  | 3.52 | 8021  | F0823 6.3 M --- 11.A -- | 235 | 160M |
| 164.99 | 8.85  | 621  | 3.00 | 7714  | F0823 9.0 M --- 11.A -- | 235 | 160M |
| 148.52 | 9.83  | 690  | 2.84 | 7661  | F0823 10. M --- 11.A -- | 235 | 160M |
| 133.53 | 10.93 | 767  | 2.69 | 7531  | F0823 12. M --- 11.A -- | 235 | 160M |
| 103.27 | 14.14 | 992  | 2.31 | 7327  | F0823 14. M --- 11.A -- | 235 | 160M |
| 91.98  | 15.87 | 1114 | 2.15 | 7482  | F0823 16. M --- 11.A -- | 235 | 160M |
| 75.01  | 19.46 | 1366 | 1.87 | 7691  | F0823 20. M --- 11.A -- | 235 | 160M |
| 66.57  | 21.93 | 1539 | 1.70 | 7978  | F0823 22. M --- 11.A -- | 235 | 160M |
| 57.19  | 25.53 | 1791 | 1.54 | 8140  | F0823 25. M --- 11.A -- | 235 | 160M |
| 51.55  | 28.32 | 1987 | 1.21 | 9940  | F0823 28. M --- 11.A -- | 235 | 160M |
| 47.11  | 30.99 | 2174 | 1.06 | 10591 | F0823 32. M --- 11.A -- | 235 | 160M |
| 41.64  | 35.06 | 2460 | 1.01 | 10626 | F0823 36. M --- 11.A -- | 235 | 160M |
| 36.89  | 39.58 | 2777 | 0.94 | 10687 | F0823 40. M --- 11.A -- | 235 | 160M |
| 30.43  | 47.98 | 3366 | 0.84 | 10822 | F0823 50. M --- 11.A -- | 235 | 160M |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**11.0 kW**

4 POLE

| N2<br>rpm       | i      | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|--------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio  | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 89.17           | 16.37  | 1149             | 3.82              | 35000            | F0923 16. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 71.40           | 20.45  | 1434             | 3.14              | 35000            | F0923 20. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 64.31           | 22.70  | 1593             | 2.83              | 35000            | F0923 22. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 56.40           | 25.88  | 1816             | 2.48              | 35000            | F0923 25. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 50.15           | 29.11  | 2042             | 2.20              | 35000            | F0923 28. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 44.30           | 32.96  | 2312             | 1.95              | 35000            | F0923 32. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 39.79           | 36.69  | 2574             | 1.75              | 35000            | F0923 36. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 35.82           | 40.76  | 2859             | 1.57              | 35000            | F0923 40. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 29.29           | 49.85  | 3497             | 1.29              | 35000            | F0923 50. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 25.36           | 57.58  | 4039             | 1.11              | 35000            | F0923 56. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 22.97           | 63.56  | 4459             | 1.01              | 35000            | F0923 63. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 18.90           | 77.26  | 5420             | 0.83              | 35000            | F0923 71. _ M _ _ _ _ 11.A - -                                                           | 301                             | 160M          |
| 50.22           | 29.07  | 2039             | 3.28              | 43000            | F1023 28. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 45.20           | 32.30  | 2266             | 3.28              | 43000            | F1023 32. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 41.34           | 35.32  | 2478             | 3.23              | 43000            | F1023 36. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 37.20           | 39.25  | 2753             | 2.91              | 43000            | F1023 40. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 31.48           | 46.38  | 3254             | 2.46              | 43000            | F1023 50. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 26.09           | 55.97  | 3926             | 2.04              | 43000            | F1023 56. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 22.64           | 64.49  | 4524             | 1.77              | 43000            | F1023 63. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 19.51           | 74.83  | 5249             | 1.52              | 43000            | F1023 71. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 16.74           | 87.21  | 6118             | 1.27              | 43000            | F1023 90. _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 15.58           | 93.70  | 6573             | 1.07              | 43000            | F1023 100 _ M _ _ _ _ 11.A - -                                                           | 383                             | 160M          |
| 13.92           | 104.86 | 7281             | 1.10              | 43000            | F1033 100 _ M _ _ _ _ 11.A - -                                                           | 400                             | 160M          |
| 12.30           | 118.71 | 8242             | 0.97              | 43000            | F1033 112 _ M _ _ _ _ 11.A - -                                                           | 400                             | 160M          |
| 11.05           | 132.14 | 9175             | 0.87              | 43000            | F1033 125 _ M _ _ _ _ 11.A - -                                                           | 400                             | 160M          |

**11.0 kW**

6 POLE

|        |       |      |      |       |                                |     |      |
|--------|-------|------|------|-------|--------------------------------|-----|------|
| 151.08 | 6.42  | 678  | 1.70 | 7546  | F0723 6.3 _ M _ _ _ _ 11.C - - | 208 | 160L |
| 109.07 | 8.89  | 939  | 1.44 | 7370  | F0723 9.0 _ M _ _ _ _ 11.C - - | 208 | 160L |
| 97.10  | 9.99  | 1055 | 1.36 | 7384  | F0723 10. _ M _ _ _ _ 11.C - - | 208 | 160L |
| 88.31  | 10.98 | 1160 | 1.31 | 7342  | F0723 12. _ M _ _ _ _ 11.C - - | 208 | 160L |
| 67.61  | 14.35 | 1515 | 1.11 | 7540  | F0723 14. _ M _ _ _ _ 11.C - - | 208 | 160L |
| 59.46  | 16.31 | 1722 | 0.99 | 7859  | F0723 16. _ M _ _ _ _ 11.C - - | 208 | 160L |
| 155.39 | 6.24  | 659  | 2.67 | 8324  | F0823 6.3 _ M _ _ _ _ 11.C - - | 245 | 160L |
| 109.62 | 8.85  | 934  | 2.28 | 7939  | F0823 9.0 _ M _ _ _ _ 11.C - - | 245 | 160L |
| 98.68  | 9.83  | 1038 | 2.16 | 7872  | F0823 10. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 88.71  | 10.93 | 1155 | 2.04 | 7834  | F0823 12. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 68.61  | 14.14 | 1493 | 1.76 | 7884  | F0823 14. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 61.11  | 15.87 | 1676 | 1.63 | 7953  | F0823 16. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 49.83  | 19.46 | 2055 | 1.37 | 8598  | F0823 20. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 44.22  | 21.93 | 2316 | 1.24 | 9012  | F0823 22. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 37.99  | 25.53 | 2696 | 1.08 | 9556  | F0823 25. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 34.25  | 28.32 | 2990 | 0.81 | 11529 | F0823 28. _ M _ _ _ _ 11.C - - | 245 | 160L |
| 95.73  | 10.13 | 1070 | 3.94 | 35000 | F0923 10. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 85.29  | 11.37 | 1201 | 3.59 | 35000 | F0923 12. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 66.18  | 14.66 | 1548 | 2.79 | 35000 | F0923 14. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 59.24  | 16.37 | 1729 | 2.49 | 35000 | F0923 16. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 47.44  | 20.45 | 2159 | 2.00 | 35000 | F0923 20. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 42.73  | 22.70 | 2397 | 1.80 | 35000 | F0923 22. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 37.47  | 25.88 | 2733 | 1.58 | 35000 | F0923 25. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 33.32  | 29.11 | 3074 | 1.40 | 35000 | F0923 28. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 29.43  | 32.96 | 3480 | 1.24 | 35000 | F0923 32. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 26.44  | 36.69 | 3874 | 1.11 | 35000 | F0923 36. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 23.80  | 40.76 | 4304 | 1.00 | 35000 | F0923 40. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 19.46  | 49.85 | 5264 | 0.82 | 35000 | F0923 50. _ M _ _ _ _ 11.C - - | 311 | 160L |
| 48.37  | 20.05 | 2118 | 3.74 | 43000 | F1023 20. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 42.61  | 22.76 | 2404 | 3.32 | 43000 | F1023 22. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 37.64  | 25.77 | 2721 | 2.91 | 43000 | F1023 25. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 33.37  | 29.07 | 3070 | 2.18 | 43000 | F1023 28. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 30.03  | 32.30 | 3411 | 2.18 | 43000 | F1023 32. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 27.46  | 35.32 | 3729 | 2.15 | 43000 | F1023 36. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 24.72  | 39.25 | 4144 | 1.93 | 43000 | F1023 40. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 20.91  | 46.38 | 4898 | 1.63 | 43000 | F1023 50. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 17.33  | 55.97 | 5910 | 1.35 | 43000 | F1023 56. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 15.04  | 64.49 | 6809 | 1.17 | 43000 | F1023 63. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 12.96  | 74.83 | 7901 | 1.01 | 43000 | F1023 71. _ M _ _ _ _ 11.C - - | 393 | 160L |
| 11.12  | 87.21 | 9209 | 0.84 | 43000 | F1023 90. _ M _ _ _ _ 11.C - - | 393 | 160L |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**15.0 kW**

4 POLE

| N2<br>rpm       | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|-------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 227.40          | 6.42  | 614              | 1.66              | 6980             | F0723 6.3 M _ _ _ _ 15.A - -                                                             | 208                             | 160L          |
| 164.17          | 8.89  | 851              | 1.41              | 6650             | F0723 9.0 M _ _ _ _ 15.A - -                                                             | 208                             | 160L          |
| 146.15          | 9.99  | 956              | 1.33              | 6534             | F0723 10. M _ _ _ _ 15.A - -                                                             | 208                             | 160L          |
| 132.92          | 10.98 | 1051             | 1.28              | 6454             | F0723 12. M _ _ _ _ 15.A - -                                                             | 208                             | 160L          |
| 101.76          | 14.35 | 1373             | 1.08              | 6399             | F0723 14. M _ _ _ _ 15.A - -                                                             | 208                             | 160L          |
| 89.50           | 16.31 | 1560             | 0.95              | 6410             | F0723 16. M _ _ _ _ 15.A - -                                                             | 208                             | 160L          |
| 233.89          | 6.24  | 597              | 2.58              | 7308             | F0823 6.3 M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 164.99          | 8.85  | 847              | 2.20              | 7028             | F0823 9.0 M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 148.52          | 9.83  | 940              | 2.08              | 6981             | F0823 10. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 133.53          | 10.93 | 1046             | 1.97              | 6862             | F0823 12. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 103.27          | 14.14 | 1353             | 1.69              | 6676             | F0823 14. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 91.98           | 15.87 | 1518             | 1.57              | 6817             | F0823 16. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 75.01           | 19.46 | 1862             | 1.37              | 7008             | F0823 20. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 66.57           | 21.93 | 2098             | 1.25              | 7269             | F0823 22. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 57.19           | 25.53 | 2442             | 1.13              | 7417             | F0823 25. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 51.55           | 28.32 | 2709             | 0.89              | 9057             | F0823 28. M _ _ _ _ 15.A - -                                                             | 245                             | 160L          |
| 161.50          | 9.04  | 865              | 4.00              | 35000            | F0923 9.0 M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 144.09          | 10.13 | 969              | 3.77              | 35000            | F0923 10. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 128.37          | 11.37 | 1088             | 3.56              | 35000            | F0923 12. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 99.62           | 14.66 | 1402             | 3.10              | 35000            | F0923 14. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 89.17           | 16.37 | 1566             | 2.80              | 35000            | F0923 16. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 71.40           | 20.45 | 1956             | 2.30              | 35000            | F0923 20. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 64.31           | 22.70 | 2172             | 2.07              | 35000            | F0923 22. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 56.40           | 25.88 | 2476             | 1.82              | 35000            | F0923 25. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 50.15           | 29.11 | 2785             | 1.62              | 35000            | F0923 28. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 44.30           | 32.96 | 3153             | 1.43              | 35000            | F0923 32. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 39.79           | 36.69 | 3510             | 1.28              | 35000            | F0923 36. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 35.82           | 40.76 | 3899             | 1.15              | 35000            | F0923 40. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 29.29           | 49.85 | 4769             | 0.94              | 35000            | F0923 50. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 25.36           | 57.58 | 5508             | 0.82              | 35000            | F0923 56. M _ _ _ _ 15.A - -                                                             | 311                             | 160L          |
| 64.14           | 22.76 | 2178             | 3.66              | 43000            | F1023 22. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 56.66           | 25.77 | 2465             | 3.21              | 43000            | F1023 25. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 50.22           | 29.07 | 2781             | 2.40              | 43000            | F1023 28. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 45.20           | 32.30 | 3090             | 2.40              | 43000            | F1023 32. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 41.34           | 35.32 | 3379             | 2.37              | 43000            | F1023 36. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 37.20           | 39.25 | 3754             | 2.13              | 43000            | F1023 40. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 31.48           | 46.38 | 4437             | 1.80              | 43000            | F1023 50. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 26.09           | 55.97 | 5354             | 1.49              | 43000            | F1023 56. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 22.64           | 64.49 | 6169             | 1.30              | 43000            | F1023 63. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 19.51           | 74.83 | 7158             | 1.12              | 43000            | F1023 71. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |
| 16.74           | 87.21 | 8343             | 0.93              | 43000            | F1023 90. M _ _ _ _ 15.A - -                                                             | 393                             | 160L          |

**15.0 kW**

6 POLE

|        |       |      |      |       |                              |     |      |
|--------|-------|------|------|-------|------------------------------|-----|------|
| 147.72 | 6.57  | 946  | 3.48 | 35000 | F0923 6.3 M _ _ _ _ 15.C - - | 356 | 180L |
| 107.30 | 9.04  | 1302 | 3.06 | 35000 | F0923 9.0 M _ _ _ _ 15.C - - | 356 | 180L |
| 95.73  | 10.13 | 1459 | 2.89 | 35000 | F0923 10. M _ _ _ _ 15.C - - | 356 | 180L |
| 85.29  | 11.37 | 1638 | 2.63 | 35000 | F0923 12. M _ _ _ _ 15.C - - | 356 | 180L |
| 66.18  | 14.66 | 2110 | 2.04 | 35000 | F0923 14. M _ _ _ _ 15.C - - | 356 | 180L |
| 59.24  | 16.37 | 2358 | 1.83 | 35000 | F0923 16. M _ _ _ _ 15.C - - | 356 | 180L |
| 47.44  | 20.45 | 2944 | 1.46 | 35000 | F0923 20. M _ _ _ _ 15.C - - | 356 | 180L |
| 42.73  | 22.70 | 3269 | 1.32 | 35000 | F0923 22. M _ _ _ _ 15.C - - | 356 | 180L |
| 37.47  | 25.88 | 3727 | 1.16 | 35000 | F0923 25. M _ _ _ _ 15.C - - | 356 | 180L |
| 33.32  | 29.11 | 4192 | 1.03 | 35000 | F0923 28. M _ _ _ _ 15.C - - | 356 | 180L |
| 29.43  | 32.96 | 4746 | 0.91 | 35000 | F0923 32. M _ _ _ _ 15.C - - | 356 | 180L |
| 26.44  | 36.69 | 5283 | 0.82 | 35000 | F0923 36. M _ _ _ _ 15.C - - | 356 | 180L |
|        |       |      |      |       |                              |     |      |
| 67.09  | 14.46 | 2082 | 3.67 | 43000 | F1023 14. M _ _ _ _ 15.C - - | 438 | 180L |
| 62.14  | 15.61 | 2248 | 3.35 | 43000 | F1023 16. M _ _ _ _ 15.C - - | 438 | 180L |
| 48.37  | 20.05 | 2888 | 2.74 | 43000 | F1023 20. M _ _ _ _ 15.C - - | 438 | 180L |
| 42.61  | 22.76 | 3278 | 2.44 | 43000 | F1023 22. M _ _ _ _ 15.C - - | 438 | 180L |
| 37.64  | 25.77 | 3710 | 2.14 | 43000 | F1023 25. M _ _ _ _ 15.C - - | 438 | 180L |
| 33.37  | 29.07 | 4186 | 1.60 | 43000 | F1023 28. M _ _ _ _ 15.C - - | 438 | 180L |
| 30.03  | 32.30 | 4651 | 1.60 | 43000 | F1023 32. M _ _ _ _ 15.C - - | 438 | 180L |
| 27.46  | 35.32 | 5085 | 1.57 | 43000 | F1023 36. M _ _ _ _ 15.C - - | 438 | 180L |
| 24.72  | 39.25 | 5651 | 1.42 | 43000 | F1023 40. M _ _ _ _ 15.C - - | 438 | 180L |
| 20.91  | 46.38 | 6678 | 1.20 | 43000 | F1023 50. M _ _ _ _ 15.C - - | 438 | 180L |
| 17.33  | 55.97 | 8059 | 0.99 | 43000 | F1023 56. M _ _ _ _ 15.C - - | 438 | 180L |
| 15.04  | 64.49 | 9285 | 0.86 | 43000 | F1023 63. M _ _ _ _ 15.C - - | 438 | 180L |

**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**18.5 kW**

4 POLE

| N2<br>rpm       | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|-------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 223.86          | 6.57  | 769              | 3.82              | 35000            | F0923 6.3 M --- 18.A --                                                                  | 366                             | 180M          |
| 162.61          | 9.04  | 1059             | 3.27              | 35000            | F0923 9.0 M --- 18.A --                                                                  | 366                             | 180M          |
| 145.08          | 10.13 | 1187             | 3.08              | 34756            | F0923 10. M --- 18.A --                                                                  | 366                             | 180M          |
| 129.25          | 11.37 | 1333             | 2.90              | 34696            | F0923 12. M --- 18.A --                                                                  | 366                             | 180M          |
| 100.30          | 14.66 | 1717             | 2.53              | 35000            | F0923 14. M --- 18.A --                                                                  | 366                             | 180M          |
| 89.78           | 16.37 | 1919             | 2.29              | 35000            | F0923 16. M --- 18.A --                                                                  | 366                             | 180M          |
| 71.89           | 20.45 | 2396             | 1.88              | 35000            | F0923 20. M --- 18.A --                                                                  | 366                             | 180M          |
| 64.76           | 22.70 | 2660             | 1.69              | 35000            | F0923 22. M --- 18.A --                                                                  | 366                             | 180M          |
| 56.79           | 25.88 | 3033             | 1.48              | 35000            | F0923 25. M --- 18.A --                                                                  | 366                             | 180M          |
| 50.49           | 29.11 | 3412             | 1.32              | 35000            | F0923 28. M --- 18.A --                                                                  | 366                             | 180M          |
| 44.60           | 32.96 | 3862             | 1.17              | 35000            | F0923 32. M --- 18.A --                                                                  | 366                             | 180M          |
| 40.07           | 36.69 | 4299             | 1.05              | 35000            | F0923 36. M --- 18.A --                                                                  | 366                             | 180M          |
| 36.06           | 40.76 | 4776             | 0.94              | 35000            | F0923 40. M --- 18.A --                                                                  | 366                             | 180M          |
| 94.17           | 15.61 | 1829             | 4.09              | 43000            | F1023 16. M --- 18.A --                                                                  | 448                             | 180M          |
| 73.30           | 20.05 | 2350             | 3.36              | 43000            | F1023 20. M --- 18.A --                                                                  | 448                             | 180M          |
| 64.58           | 22.76 | 2667             | 2.99              | 43000            | F1023 22. M --- 18.A --                                                                  | 448                             | 180M          |
| 57.05           | 25.77 | 3020             | 2.62              | 43000            | F1023 25. M --- 18.A --                                                                  | 448                             | 180M          |
| 50.57           | 29.07 | 3407             | 1.96              | 43000            | F1023 28. M --- 18.A --                                                                  | 448                             | 180M          |
| 45.51           | 32.30 | 3785             | 1.96              | 43000            | F1023 32. M --- 18.A --                                                                  | 448                             | 180M          |
| 41.62           | 35.32 | 4139             | 1.93              | 43000            | F1023 36. M --- 18.A --                                                                  | 448                             | 180M          |
| 37.46           | 39.25 | 4599             | 1.74              | 43000            | F1023 40. M --- 18.A --                                                                  | 448                             | 180M          |
| 31.69           | 46.38 | 5435             | 1.47              | 43000            | F1023 50. M --- 18.A --                                                                  | 448                             | 180M          |
| 26.27           | 55.97 | 6558             | 1.22              | 43000            | F1023 56. M --- 18.A --                                                                  | 448                             | 180M          |
| 22.80           | 64.49 | 7557             | 1.06              | 43000            | F1023 63. M --- 18.A --                                                                  | 448                             | 180M          |
| 19.65           | 74.83 | 8768             | 0.91              | 43000            | F1023 71. M --- 18.A --                                                                  | 448                             | 180M          |

**18.5 kW**

6 POLE

|        |       |      |      |       |                         |     |      |
|--------|-------|------|------|-------|-------------------------|-----|------|
| 149.24 | 6.57  | 1154 | 2.85 | 35000 | F0923 6.3 M --- 18.C -- | 403 | 200L |
| 108.41 | 9.04  | 1589 | 2.50 | 35000 | F0923 9.0 M --- 18.C -- | 403 | 200L |
| 96.72  | 10.13 | 1781 | 2.36 | 35000 | F0923 10. M --- 18.C -- | 403 | 200L |
| 86.17  | 11.37 | 1999 | 2.16 | 35000 | F0923 12. M --- 18.C -- | 403 | 200L |
| 66.87  | 14.66 | 2576 | 1.67 | 35000 | F0923 14. M --- 18.C -- | 403 | 200L |
| 59.85  | 16.37 | 2878 | 1.50 | 35000 | F0923 16. M --- 18.C -- | 403 | 200L |
| 47.93  | 20.45 | 3594 | 1.20 | 35000 | F0923 20. M --- 18.C -- | 403 | 200L |
| 43.17  | 22.70 | 3990 | 1.08 | 35000 | F0923 22. M --- 18.C -- | 403 | 200L |
| 37.86  | 25.88 | 4550 | 0.95 | 35000 | F0923 25. M --- 18.C -- | 403 | 200L |
| 33.66  | 29.11 | 5118 | 0.84 | 35000 | F0923 28. M --- 18.C -- | 403 | 200L |
| 109.06 | 8.99  | 1579 | 3.98 | 43000 | F1023 9.0 M --- 18.C -- | 485 | 200L |
| 100.28 | 9.77  | 1718 | 3.89 | 43000 | F1023 10. M --- 18.C -- | 485 | 200L |
| 88.29  | 11.10 | 1951 | 3.76 | 43000 | F1023 12. M --- 18.C -- | 485 | 200L |
| 67.78  | 14.46 | 2541 | 3.00 | 43000 | F1023 14. M --- 18.C -- | 485 | 200L |
| 62.78  | 15.61 | 2744 | 2.75 | 43000 | F1023 16. M --- 18.C -- | 485 | 200L |
| 48.87  | 20.05 | 3525 | 2.24 | 43000 | F1023 20. M --- 18.C -- | 485 | 200L |
| 43.05  | 22.76 | 4001 | 2.00 | 43000 | F1023 22. M --- 18.C -- | 485 | 200L |
| 38.03  | 25.77 | 4529 | 1.75 | 43000 | F1023 25. M --- 18.C -- | 485 | 200L |
| 33.71  | 29.07 | 5110 | 1.31 | 43000 | F1023 28. M --- 18.C -- | 485 | 200L |
| 30.34  | 32.30 | 5678 | 1.31 | 43000 | F1023 32. M --- 18.C -- | 485 | 200L |
| 27.75  | 35.32 | 6208 | 1.29 | 43000 | F1023 36. M --- 18.C -- | 485 | 200L |
| 24.97  | 39.25 | 6898 | 1.16 | 43000 | F1023 40. M --- 18.C -- | 485 | 200L |
| 21.13  | 46.38 | 8153 | 0.98 | 43000 | F1023 50. M --- 18.C -- | 485 | 200L |
| 17.51  | 55.97 | 9837 | 0.81 | 43000 | F1023 56. M --- 18.C -- | 485 | 200L |

#### NOTE

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**22.0 kW**

4 POLE

| N2<br>rpm       | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|-------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 223.86          | 6.57  | 915              | 3.21              | 34772            | F0923 6.3 M --- 22.A --                                                                  | 366                             | 180L          |
| 162.61          | 9.04  | 1260             | 2.75              | 33579            | F0923 9.0 M --- 22.A --                                                                  | 366                             | 180L          |
| 145.08          | 10.13 | 1412             | 2.59              | 32995            | F0923 10. M --- 22.A --                                                                  | 366                             | 180L          |
| 129.25          | 11.37 | 1585             | 2.44              | 32939            | F0923 12. M --- 22.A --                                                                  | 366                             | 180L          |
| 100.30          | 14.66 | 2042             | 2.13              | 33485            | F0923 14. M --- 22.A --                                                                  | 366                             | 180L          |
| 89.78           | 16.37 | 2282             | 1.93              | 34203            | F0923 16. M --- 22.A --                                                                  | 366                             | 180L          |
| 71.89           | 20.45 | 2849             | 1.58              | 35000            | F0923 20. M --- 22.A --                                                                  | 366                             | 180L          |
| 64.76           | 22.70 | 3163             | 1.42              | 35000            | F0923 22. M --- 22.A --                                                                  | 366                             | 180L          |
| 56.79           | 25.88 | 3607             | 1.25              | 35000            | F0923 25. M --- 22.A --                                                                  | 366                             | 180L          |
| 50.49           | 29.11 | 4057             | 1.11              | 35000            | F0923 28. M --- 22.A --                                                                  | 366                             | 180L          |
| 44.60           | 32.96 | 4593             | 0.98              | 35000            | F0923 32. M --- 22.A --                                                                  | 366                             | 180L          |
| 40.07           | 36.69 | 5113             | 0.88              | 35000            | F0923 36. M --- 22.A --                                                                  | 366                             | 180L          |
| 101.67          | 14.46 | 2015             | 3.62              | 43000            | F1023 14. M --- 22.A --                                                                  | 448                             | 180L          |
| 94.17           | 15.61 | 2175             | 3.44              | 43000            | F1023 16. M --- 22.A --                                                                  | 448                             | 180L          |
| 73.30           | 20.05 | 2795             | 2.82              | 43000            | F1023 20. M --- 22.A --                                                                  | 448                             | 180L          |
| 64.58           | 22.76 | 3172             | 2.51              | 43000            | F1023 22. M --- 22.A --                                                                  | 448                             | 180L          |
| 57.05           | 25.77 | 3591             | 2.20              | 43000            | F1023 25. M --- 22.A --                                                                  | 448                             | 180L          |
| 50.57           | 29.07 | 4051             | 1.65              | 43000            | F1023 28. M --- 22.A --                                                                  | 448                             | 180L          |
| 45.51           | 32.30 | 4501             | 1.65              | 43000            | F1023 32. M --- 22.A --                                                                  | 448                             | 180L          |
| 41.62           | 35.32 | 4922             | 1.63              | 43000            | F1023 36. M --- 22.A --                                                                  | 448                             | 180L          |
| 37.46           | 39.25 | 5469             | 1.46              | 43000            | F1023 40. M --- 22.A --                                                                  | 448                             | 180L          |
| 31.69           | 46.38 | 6463             | 1.24              | 43000            | F1023 50. M --- 22.A --                                                                  | 448                             | 180L          |
| 26.27           | 55.97 | 7799             | 1.03              | 43000            | F1023 56. M --- 22.A --                                                                  | 448                             | 180L          |
| 22.80           | 64.49 | 8986             | 0.89              | 43000            | F1023 63. M --- 22.A --                                                                  | 448                             | 180L          |

**22.0 kW**

6 POLE

|        |       |      |      |       |                         |     |      |
|--------|-------|------|------|-------|-------------------------|-----|------|
| 149.24 | 6.57  | 1373 | 2.40 | 34056 | F0923 6.3 M --- 22.C -- | 403 | 200L |
| 108.41 | 9.04  | 1890 | 2.11 | 33761 | F0923 9.0 M --- 22.C -- | 403 | 200L |
| 96.72  | 10.13 | 2118 | 1.99 | 33917 | F0923 10. M --- 22.C -- | 403 | 200L |
| 86.17  | 11.37 | 2377 | 1.81 | 34308 | F0923 12. M --- 22.C -- | 403 | 200L |
| 66.87  | 14.66 | 3064 | 1.41 | 35000 | F0923 14. M --- 22.C -- | 403 | 200L |
| 59.85  | 16.37 | 3423 | 1.26 | 35000 | F0923 16. M --- 22.C -- | 403 | 200L |
| 47.93  | 20.45 | 4274 | 1.01 | 35000 | F0923 20. M --- 22.C -- | 403 | 200L |
| 43.17  | 22.70 | 4745 | 0.91 | 35000 | F0923 22. M --- 22.C -- | 403 | 200L |
| 37.86  | 25.88 | 5411 | 0.80 | 35000 | F0923 25. M --- 22.C -- | 403 | 200L |
| 152.35 | 6.43  | 1345 | 3.59 | 43000 | F1023 6.3 M --- 22.C -- | 485 | 200L |
| 109.06 | 8.99  | 1878 | 3.34 | 43000 | F1023 9.0 M --- 22.C -- | 485 | 200L |
| 100.28 | 9.77  | 2043 | 3.28 | 43000 | F1023 10. M --- 22.C -- | 485 | 200L |
| 88.29  | 11.10 | 2320 | 3.16 | 43000 | F1023 12. M --- 22.C -- | 485 | 200L |
| 67.78  | 14.46 | 3022 | 2.52 | 43000 | F1023 14. M --- 22.C -- | 485 | 200L |
| 62.78  | 15.61 | 3263 | 2.31 | 43000 | F1023 16. M --- 22.C -- | 485 | 200L |
| 48.87  | 20.05 | 4192 | 1.89 | 43000 | F1023 20. M --- 22.C -- | 485 | 200L |
| 43.05  | 22.76 | 4758 | 1.68 | 43000 | F1023 22. M --- 22.C -- | 485 | 200L |
| 38.03  | 25.77 | 5386 | 1.47 | 43000 | F1023 25. M --- 22.C -- | 485 | 200L |
| 33.71  | 29.07 | 6077 | 1.10 | 43000 | F1023 28. M --- 22.C -- | 485 | 200L |
| 30.34  | 32.30 | 6752 | 1.10 | 43000 | F1023 32. M --- 22.C -- | 485 | 200L |
| 27.75  | 35.32 | 7382 | 1.08 | 43000 | F1023 36. M --- 22.C -- | 485 | 200L |
| 24.97  | 39.25 | 8204 | 0.98 | 43000 | F1023 40. M --- 22.C -- | 485 | 200L |
| 21.13  | 46.38 | 9695 | 0.83 | 43000 | F1023 50. M --- 22.C -- | 485 | 200L |

**30.0 kW**

4 POLE

|        |       |      |      |       |                         |     |      |
|--------|-------|------|------|-------|-------------------------|-----|------|
| 223.86 | 6.57  | 1248 | 2.36 | 31683 | F0923 6.3 M --- 30.A -- | 403 | 200L |
| 162.61 | 9.04  | 1718 | 2.01 | 30596 | F0923 9.0 M --- 30.A -- | 403 | 200L |
| 145.08 | 10.13 | 1925 | 1.90 | 30064 | F0923 10. M --- 30.A -- | 403 | 200L |
| 129.25 | 11.37 | 2161 | 1.79 | 30012 | F0923 12. M --- 30.A -- | 403 | 200L |
| 100.30 | 14.66 | 2785 | 1.56 | 30510 | F0923 14. M --- 30.A -- | 403 | 200L |
| 89.78  | 16.37 | 3111 | 1.41 | 31164 | F0923 16. M --- 30.A -- | 403 | 200L |
| 71.89  | 20.45 | 3886 | 1.16 | 32500 | F0923 20. M --- 30.A -- | 403 | 200L |
| 64.76  | 22.70 | 4314 | 1.04 | 33016 | F0923 22. M --- 30.A -- | 403 | 200L |
| 56.79  | 25.88 | 4919 | 0.91 | 33591 | F0923 25. M --- 30.A -- | 403 | 200L |
| 50.49  | 29.11 | 5533 | 0.81 | 32897 | F0923 28. M --- 30.A -- | 403 | 200L |
| 228.52 | 6.43  | 1222 | 3.93 | 43000 | F1023 6.3 M --- 30.A -- | 485 | 200L |
| 163.59 | 8.99  | 1708 | 3.46 | 43000 | F1023 9.0 M --- 30.A -- | 485 | 200L |
| 150.42 | 9.77  | 1857 | 3.33 | 43000 | F1023 10. M --- 30.A -- | 485 | 200L |
| 132.43 | 11.10 | 2109 | 3.13 | 43000 | F1023 12. M --- 30.A -- | 485 | 200L |
| 101.67 | 14.46 | 2747 | 2.66 | 43000 | F1023 14. M --- 30.A -- | 485 | 200L |
| 94.17  | 15.61 | 2966 | 2.52 | 43000 | F1023 16. M --- 30.A -- | 485 | 200L |
| 73.30  | 20.05 | 3811 | 2.07 | 43000 | F1023 20. M --- 30.A -- | 485 | 200L |
| 64.58  | 22.76 | 4325 | 1.84 | 43000 | F1023 22. M --- 30.A -- | 485 | 200L |
| 57.05  | 25.77 | 4897 | 1.61 | 43000 | F1023 25. M --- 30.A -- | 485 | 200L |
| 50.57  | 29.07 | 5524 | 1.21 | 43000 | F1023 28. M --- 30.A -- | 485 | 200L |
| 45.51  | 32.30 | 6138 | 1.21 | 43000 | F1023 32. M --- 30.A -- | 485 | 200L |
| 41.62  | 35.32 | 6711 | 1.19 | 43000 | F1023 36. M --- 30.A -- | 485 | 200L |
| 37.46  | 39.25 | 7458 | 1.07 | 43000 | F1023 40. M --- 30.A -- | 485 | 200L |
| 31.69  | 46.38 | 8814 | 0.91 | 43000 | F1023 50. M --- 30.A -- | 485 | 200L |

**NOTE**

Other output speeds  
are available using  
2 and 8 pole motors.  
Consult Application  
Engineering

# F SERIES

## SELECTION TABLES

### GEARED MOTORS

**30.0 kW**

6 POLE

| N2<br>rpm       | i     | M2<br>Nm         | Fm                | N                | Unit Designation                                                                         | kg                              |               |
|-----------------|-------|------------------|-------------------|------------------|------------------------------------------------------------------------------------------|---------------------------------|---------------|
| Output<br>Speed | Ratio | Output<br>Torque | Service<br>Factor | Overhung<br>Load | Column Entry <span>1</span> - <span>20</span><br>Blanks to be filled when entering order | Weight of<br>base<br>mount unit | Motor<br>Size |
| 150.00          | 6.57  | 1862             | 1.77              | 31078            | F0923 6.3 _ M _ _ _ 30.C _ _                                                             | 403                             | 200L          |
| 108.96          | 9.04  | 2564             | 1.55              | 30808            | F0923 9.0 _ M _ _ _ 30.C _ _                                                             | 403                             | 200L          |
| 97.21           | 10.13 | 2873             | 1.47              | 30951            | F0923 10. _ M _ _ _ 30.C _ _                                                             | 403                             | 200L          |
| 86.61           | 11.37 | 3225             | 1.34              | 31308            | F0923 12. _ M _ _ _ 30.C _ _                                                             | 403                             | 200L          |
| 67.21           | 14.66 | 4156             | 1.04              | 32553            | F0923 14. _ M _ _ _ 30.C _ _                                                             | 403                             | 200L          |
| 60.16           | 16.37 | 4643             | 0.93              | 33053            | F0923 16. _ M _ _ _ 30.C _ _                                                             | 403                             | 200L          |
| 153.13          | 6.43  | 1824             | 2.65              | 43000            | F1023 6.3 _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 109.62          | 8.99  | 2548             | 2.46              | 43000            | F1023 9.0 _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 100.79          | 9.77  | 2771             | 2.41              | 43000            | F1023 10. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 88.74           | 11.10 | 3148             | 2.33              | 43000            | F1023 12. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 68.13           | 14.46 | 4100             | 1.86              | 43000            | F1023 14. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 63.10           | 15.61 | 4427             | 1.70              | 43000            | F1023 16. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 49.12           | 20.05 | 5687             | 1.39              | 43000            | F1023 20. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 43.27           | 22.76 | 6455             | 1.24              | 43000            | F1023 22. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 38.23           | 25.77 | 7308             | 1.08              | 43000            | F1023 25. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 33.88           | 29.07 | 8244             | 0.81              | 43000            | F1023 28. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 30.49           | 32.30 | 9160             | 0.81              | 43000            | F1023 32. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |
| 27.89           | 35.32 | 10016            | 0.80              | 43000            | F1023 36. _ M _ _ _ 30.C _ _                                                             | 485                             | 200L          |

**37.0 kW**

4 POLE

|        |       |      |      |       |                              |     |      |
|--------|-------|------|------|-------|------------------------------|-----|------|
| 223.86 | 6.57  | 1539 | 1.91 | 29751 | F0923 6.3 _ M _ _ _ 37.A _ _ | 484 | 225S |
| 162.61 | 9.04  | 2119 | 1.63 | 28730 | F0923 9.0 _ M _ _ _ 37.A _ _ | 484 | 225S |
| 145.08 | 10.13 | 2375 | 1.54 | 28231 | F0923 10. _ M _ _ _ 37.A _ _ | 484 | 225S |
| 129.25 | 11.37 | 2666 | 1.45 | 28182 | F0923 12. _ M _ _ _ 37.A _ _ | 484 | 225S |
| 100.30 | 14.66 | 3435 | 1.26 | 28650 | F0923 14. _ M _ _ _ 37.A _ _ | 484 | 225S |
| 89.78  | 16.37 | 3837 | 1.14 | 29264 | F0923 16. _ M _ _ _ 37.A _ _ | 484 | 225S |
| 71.89  | 20.45 | 4792 | 0.94 | 30519 | F0923 20. _ M _ _ _ 37.A _ _ | 484 | 225S |
| 64.76  | 22.70 | 5320 | 0.85 | 31003 | F0923 22. _ M _ _ _ 37.A _ _ | 484 | 225S |
| 228.52 | 6.43  | 1508 | 3.19 | 43000 | F1023 6.3 _ M _ _ _ 37.A _ _ | 567 | 225S |
| 163.59 | 8.99  | 2106 | 2.81 | 43000 | F1023 9.0 _ M _ _ _ 37.A _ _ | 567 | 225S |
| 150.42 | 9.77  | 2290 | 2.70 | 43000 | F1023 10. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 132.43 | 11.10 | 2601 | 2.54 | 43000 | F1023 12. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 101.67 | 14.46 | 3388 | 2.15 | 43000 | F1023 14. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 94.17  | 15.61 | 3658 | 2.04 | 43000 | F1023 16. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 73.30  | 20.05 | 4700 | 1.68 | 43000 | F1023 20. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 64.58  | 22.76 | 5335 | 1.49 | 43000 | F1023 22. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 57.05  | 25.77 | 6039 | 1.31 | 43000 | F1023 25. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 50.57  | 29.07 | 6813 | 0.98 | 43000 | F1023 28. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 45.51  | 32.30 | 7570 | 0.98 | 43000 | F1023 32. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 41.62  | 35.32 | 8277 | 0.97 | 43000 | F1023 36. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 37.46  | 39.25 | 9198 | 0.87 | 43000 | F1023 40. _ M _ _ _ 37.A _ _ | 567 | 225S |
| 150.00 | 6.57  | 2297 | 1.43 | 29183 | F0923 6.3 _ M _ _ _ 37.C _ _ | 517 | 225M |
| 108.96 | 9.04  | 3162 | 1.26 | 28930 | F0923 9.0 _ M _ _ _ 37.C _ _ | 517 | 225M |
| 97.21  | 10.13 | 3544 | 1.19 | 29064 | F0923 10. _ M _ _ _ 37.C _ _ | 517 | 225M |
| 86.61  | 11.37 | 3978 | 1.08 | 29399 | F0923 12. _ M _ _ _ 37.C _ _ | 517 | 225M |
| 67.21  | 14.66 | 5126 | 0.84 | 30568 | F0923 14. _ M _ _ _ 37.C _ _ | 517 | 225M |
| 153.13 | 6.43  | 2250 | 2.15 | 43000 | F1023 6.3 _ M _ _ _ 37.C _ _ | 600 | 225M |
| 109.62 | 8.99  | 3143 | 2.00 | 43000 | F1023 9.0 _ M _ _ _ 37.C _ _ | 600 | 225M |
| 100.79 | 9.77  | 3418 | 1.96 | 43000 | F1023 10. _ M _ _ _ 37.C _ _ | 600 | 225M |
| 88.74  | 11.10 | 3882 | 1.89 | 43000 | F1023 12. _ M _ _ _ 37.C _ _ | 600 | 225M |
| 68.13  | 14.46 | 5057 | 1.51 | 43000 | F1023 14. _ M _ _ _ 37.C _ _ | 600 | 225M |
| 63.10  | 15.61 | 5460 | 1.38 | 43000 | F1023 16. _ M _ _ _ 37.C _ _ | 600 | 225M |
| 49.12  | 20.05 | 7014 | 1.13 | 43000 | F1023 20. _ M _ _ _ 37.C _ _ | 600 | 225M |
| 43.27  | 22.76 | 7962 | 1.00 | 43000 | F1023 22. _ M _ _ _ 37.C _ _ | 600 | 225M |
| 38.23  | 25.77 | 9013 | 0.88 | 43000 | F1023 25. _ M _ _ _ 37.C _ _ | 600 | 225M |

**45.0 kW**

4 POLE

|        |       |      |      |       |                              |     |      |
|--------|-------|------|------|-------|------------------------------|-----|------|
| 225.38 | 6.57  | 1859 | 1.58 | 28111 | F0923 6.3 _ M _ _ _ 45.A _ _ | 517 | 225M |
| 163.72 | 9.04  | 2559 | 1.35 | 27147 | F0923 9.0 _ M _ _ _ 45.A _ _ | 517 | 225M |
| 146.07 | 10.13 | 2869 | 1.27 | 26675 | F0923 10. _ M _ _ _ 45.A _ _ | 517 | 225M |
| 130.13 | 11.37 | 3220 | 1.20 | 26629 | F0923 12. _ M _ _ _ 45.A _ _ | 517 | 225M |
| 100.98 | 14.66 | 4149 | 1.05 | 27071 | F0923 14. _ M _ _ _ 45.A _ _ | 517 | 225M |
| 90.39  | 16.37 | 4636 | 0.95 | 27651 | F0923 16. _ M _ _ _ 45.A _ _ | 517 | 225M |
| 230.08 | 6.43  | 1821 | 2.64 | 43000 | F1023 6.3 _ M _ _ _ 45.A _ _ | 600 | 225M |
| 164.71 | 8.99  | 2544 | 2.32 | 43000 | F1023 9.0 _ M _ _ _ 45.A _ _ | 600 | 225M |
| 151.45 | 9.77  | 2767 | 2.23 | 43000 | F1023 10. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 133.33 | 11.10 | 3143 | 2.10 | 43000 | F1023 12. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 102.37 | 14.46 | 4093 | 1.78 | 43000 | F1023 14. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 94.81  | 15.61 | 4419 | 1.69 | 43000 | F1023 16. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 73.80  | 20.05 | 5678 | 1.39 | 43000 | F1023 20. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 65.02  | 22.76 | 6444 | 1.24 | 43000 | F1023 22. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 57.44  | 25.77 | 7295 | 1.08 | 43000 | F1023 25. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 50.91  | 29.07 | 8230 | 0.81 | 43000 | F1023 28. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 45.82  | 32.30 | 9145 | 0.81 | 43000 | F1023 32. _ M _ _ _ 45.A _ _ | 600 | 225M |
| 41.90  | 35.32 | 9999 | 0.80 | 43000 | F1023 36. _ M _ _ _ 45.A _ _ | 600 | 225M |

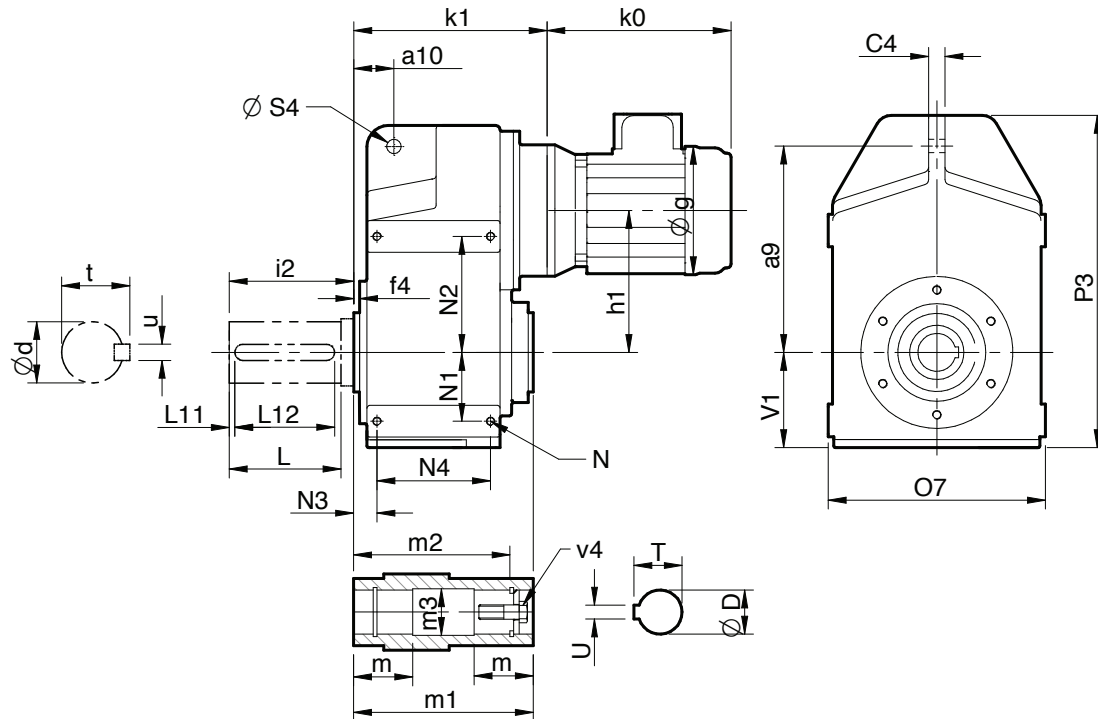
**NOTE**

Other output speeds are available using 2 and 8 pole motors. Consult Application Engineering

# F SERIES

## DIMENSIONS

### DOUBLE / TRIPLE REDUCTION



|                      | a9  | a10  | C4 | f4  | h1    | N   | N1  | N2  | N3   | N4  | O7  | P3  | S4 | V1  |
|----------------------|-----|------|----|-----|-------|-----|-----|-----|------|-----|-----|-----|----|-----|
| <b>F0223 - F0233</b> | 140 | 25   | 10 | 5   | 96    | M8  | 48  | 38  | 21.5 | 68  | 144 | 225 | 14 | 62  |
| <b>F0323 - F0333</b> | 158 | 31.5 | 12 | 3   | 102.8 | M8  | 31  | 84  | 22.5 | 77  | 165 | 252 | 14 | 77  |
| <b>F0423 - F0433</b> | 170 | 32   | 12 | 3   | 120   | M10 | 50  | 60  | 24   | 90  | 176 | 289 | 14 | 88  |
| <b>F0523 - F0533</b> | 198 | 40.5 | 14 | 3   | 139.2 | M12 | 55  | 115 | 33.5 | 102 | 200 | 327 | 14 | 97  |
| <b>F0623 - F0633</b> | 218 | 41   | 16 | 2   | 160   | M12 | 65  | 85  | 28   | 125 | 236 | 367 | 14 | 110 |
| <b>F0723 - F0733</b> | 278 | 50   | 20 | 2   | 200   | M16 | 85  | 115 | 30   | 150 | 280 | 449 | 22 | 134 |
| <b>F0823 - F0833</b> | 346 | 62   | 26 | 3   | 226   | M16 | 100 | 100 | 35   | 170 | 340 | 526 | 22 | 148 |
| <b>F0923 - F0933</b> | 395 | 70   | 30 | 5   | 274   | M16 | 125 | 225 | 38   | 215 | 400 | 612 | 27 | 175 |
| <b>F1023 - F1033</b> | 485 | 88   | 36 | 5.5 | 332   | M20 | 158 | 272 | 41.5 | 250 | 470 | 748 | 27 | 216 |

|                      | D (H7) | m   | m1    | m2  | m3   | T    | U  | v4     |
|----------------------|--------|-----|-------|-----|------|------|----|--------|
| <b>F0223 - F0233</b> | 25     | 45  | 117.5 | 89  | 25.2 | 28.3 | 8  | M10x25 |
| <b>F0323 - F0333</b> | 30     | 52  | 120   | 105 | 30.3 | 33.3 | 8  | M10x25 |
| <b>F0423 - F0433</b> | 35     | 65  | 150   | 132 | 35.3 | 38.3 | 10 | M12x30 |
| <b>F0523 - F0533</b> | 40     | 65  | 166   | 142 | 40.3 | 43.3 | 12 | M16x40 |
| <b>F0623 - F0633</b> | 40     | 90  | 200   | 156 | 40.3 | 43.3 | 12 | M16x40 |
| <b>F0723 - F0733</b> | 50     | 105 | 235   | 183 | 50.5 | 53.8 | 14 | M16x45 |
| <b>F0823 - F0833</b> | 60     | 117 | 265   | 210 | 60.5 | 64.4 | 18 | M20x50 |
| <b>F0923 - F0933</b> | 70     | 147 | 330   | 270 | 70.5 | 74.9 | 20 | M20x50 |
| <b>F1023 - F1033</b> | 90     | 165 | 370   | 313 | 90.5 | 95.4 | 25 | M24x60 |

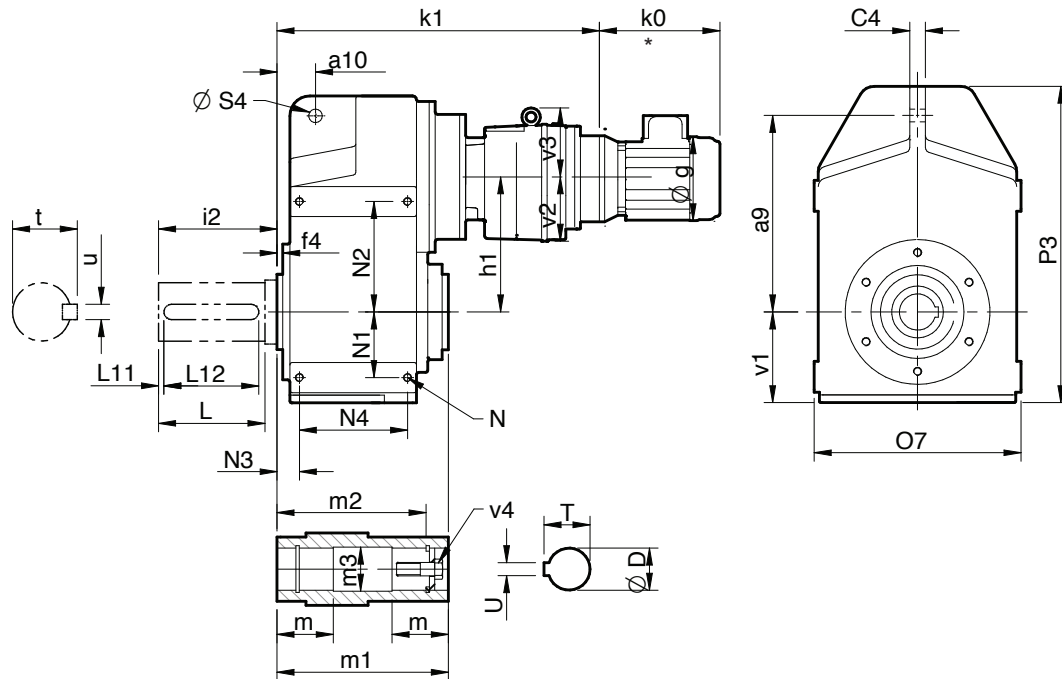
|       | d   | i2  | L | L11 | L12  | t  | u |
|-------|-----|-----|---|-----|------|----|---|
| -     | -   | -   | - | -   | -    | -  | - |
| 25 k6 | 50  | 47  | 3 | 40  | 28   | 8  |   |
| 30 k6 | 60  | 56  | 3 | 50  | 33   | 8  |   |
| 35 k6 | 70  | 66  | 3 | 60  | 38   | 10 |   |
| 40 k6 | 81  | 76  | 3 | 70  | 43   | 12 |   |
| 50 k6 | 101 | 95  | 3 | 80  | 53.5 | 14 |   |
| 60 m6 | 120 | 114 | 3 | 100 | 64   | 18 |   |
| 70 m6 | 141 | 135 | 3 | 110 | 74.5 | 20 |   |
| 90 m6 | 172 | 165 | 5 | 140 | 95   | 25 |   |

|             | F0223 | F0233 | F0323 | F0333 | F0423 | F0433 | F0523 | F0533 | F0623 | F0633 | F0723 | F0733 | F0823 | F0833 | F0923 | F0933 | F1023 | F1033 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>63</b>   | 195   | 140   | 154   | 169   | 158   | 171   | 171   | 184   | 178   | 208   | 197   | 227   | -     | 248   | -     | -     | -     | -     |
| <b>71</b>   | 220   | 140   | 158   | 173   | 162   | 175   | 175   | 188   | 184   | 212   | 203   | 231   | -     | 254   | -     | -     | -     | -     |
| <b>80</b>   | 240   | 158   | 171   | 186   | 175   | 188   | 188   | 201   | 202   | 225   | 221   | 244   | 257   | 272   | 330   | 315   | 354   | 407   |
| <b>90S</b>  | 260   | 180   | 181   | 196   | 185   | 198   | 198   | 211   | 212   | 235   | 231   | 254   | 267   | 282   | 330   | 325   | 354   | 407   |
| <b>90L</b>  | 280   | 180   | 181   | 196   | 185   | 198   | 198   | 211   | 212   | 235   | 231   | 254   | 267   | 282   | 330   | 325   | 354   | 407   |
| <b>100L</b> | 310   | 198   | 189   | 204   | 193   | 206   | 206   | 219   | 239   | 243   | 258   | 262   | 279   | 309   | 336   | 337   | 360   | 413   |
| <b>112M</b> | 330   | 222   | 189   | 204   | 193   | 206   | 206   | 219   | 239   | 243   | 258   | 262   | 279   | 309   | 336   | 337   | 360   | 413   |
| <b>132S</b> | 380   | 260   | -     | -     | -     | -     | -     | -     | 239   | -     | 258   | -     | 301   | 309   | 336   | 359   | 360   | 413   |
| <b>132M</b> | 420   | 260   | -     | -     | -     | -     | -     | -     | 239   | -     | 258   | -     | 301   | 309   | 336   | 359   | 360   | 413   |
| <b>160M</b> | 480   | 320   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 309   | -     | 366   | 367   | 395   | 443   |
| <b>160L</b> | 530   | 320   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 309   | -     | 366   | 367   | 395   | 443   |
| <b>180M</b> | 560   | 360   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 395   | -     | 425   |
| <b>180L</b> | 595   | 360   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 395   | -     | 425   |
| <b>200L</b> | 660   | 400   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 395   | -     | 425   |
| <b>225S</b> | 680   | 450   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 422   | -     | 452   |
| <b>225M</b> | 715   | 450   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 422   | -     | 452   |

# F SERIES

## DIMENSIONS

### QUADRUPLE REDUCTION



|              | a9  | a10  | C4 | f4  | h1    | N   | N1  | N2  | N3   | N4  | Ø7  | P3  | S4 | v1  | v2  | v3  |
|--------------|-----|------|----|-----|-------|-----|-----|-----|------|-----|-----|-----|----|-----|-----|-----|
| <b>F0343</b> | 158 | 31.5 | 12 | 3   | 102.8 | M8  | 31  | 84  | 22.5 | 77  | 165 | 252 | 14 | 77  | 76  | 74  |
| <b>F0443</b> | 170 | 32   | 12 | 3   | 120   | M10 | 50  | 60  | 24   | 90  | 176 | 289 | 14 | 88  | 76  | 74  |
| <b>F0543</b> | 198 | 40.5 | 14 | 3   | 139.2 | M12 | 55  | 115 | 33.5 | 102 | 200 | 327 | 14 | 97  | 91  | 90  |
| <b>F0643</b> | 218 | 41   | 16 | 2   | 160   | M12 | 65  | 85  | 28   | 125 | 236 | 367 | 14 | 110 | 91  | 90  |
| <b>F0743</b> | 278 | 50   | 20 | 2   | 200   | M16 | 85  | 115 | 30   | 150 | 280 | 449 | 22 | 134 | 91  | 90  |
| <b>F0843</b> | 346 | 62   | 26 | 3   | 226   | M16 | 100 | 100 | 35   | 170 | 340 | 526 | 22 | 148 | 115 | 93  |
| <b>F0943</b> | 395 | 70   | 30 | 5   | 274   | M16 | 125 | 225 | 38   | 215 | 400 | 612 | 27 | 175 | 115 | 93  |
| <b>F1043</b> | 485 | 88   | 36 | 5.5 | 332   | M20 | 158 | 272 | 41.5 | 250 | 470 | 748 | 27 | 216 | 140 | 155 |

|              | D (H7) | m   | m1  | m2  | m3   | T    | U  | v4     |
|--------------|--------|-----|-----|-----|------|------|----|--------|
| <b>F0343</b> | 30     | 52  | 120 | 105 | 30.3 | 33.3 | 8  | M10x25 |
| <b>F0443</b> | 35     | 65  | 150 | 132 | 35.3 | 38.3 | 10 | M12x30 |
| <b>F0543</b> | 40     | 65  | 166 | 142 | 40.3 | 43.3 | 12 | M16x40 |
| <b>F0643</b> | 40     | 90  | 200 | 156 | 40.3 | 43.3 | 12 | M16x40 |
| <b>F0743</b> | 50     | 105 | 235 | 183 | 50.5 | 53.8 | 14 | M16x45 |
| <b>F0843</b> | 60     | 117 | 265 | 210 | 60.5 | 64.4 | 18 | M20x50 |
| <b>F0943</b> | 70     | 147 | 330 | 270 | 70.5 | 74.9 | 20 | M20x50 |
| <b>F1043</b> | 90     | 165 | 370 | 313 | 90.5 | 95.4 | 25 | M24x60 |

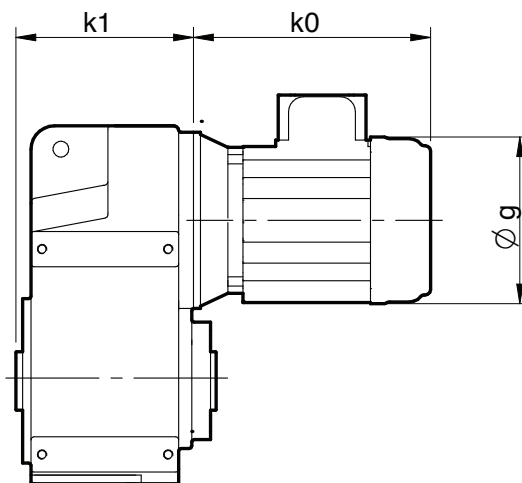
|       | d (H7) | i2  | L | L11 | L12  | t  | u |
|-------|--------|-----|---|-----|------|----|---|
| 25 k6 | 50     | 47  | 3 | 40  | 28   | 8  |   |
| 30 k6 | 60     | 56  | 3 | 50  | 33   | 8  |   |
| 35 k6 | 70     | 66  | 3 | 60  | 38   | 10 |   |
| 40 k6 | 81     | 76  | 3 | 70  | 43   | 12 |   |
| 50 k6 | 101    | 95  | 3 | 80  | 53.5 | 14 |   |
| 60 m6 | 120    | 114 | 3 | 100 | 64   | 18 |   |
| 70 m6 | 141    | 135 | 3 | 110 | 74.5 | 20 |   |
| 90 m6 | 172    | 165 | 5 | 140 | 95   | 25 |   |

|             |     |     | F0343 | F0443 | F0543 | F0643 | F0743 | F0843 | F0943 | F1043 |
|-------------|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
|             | k0  | g   | k1    | k1    | k1    | k1    | k1    | k1    | k1    | k1    |
| <b>63</b>   | 195 | 140 | 344   | 357   | 402   | 421   | 457   | 505   | 564   | -     |
| <b>71</b>   | 220 | 140 | 348   | 361   | 406   | 425   | 461   | 511   | 570   | -     |
| <b>80</b>   | 240 | 158 | 361   | 374   | 419   | 438   | 474   | 529   | 588   | 672   |
| <b>90S</b>  | 260 | 180 | 371   | 384   | 429   | 448   | 484   | 539   | 598   | 682   |
| <b>90L</b>  | 280 | 180 | 371   | 384   | 429   | 448   | 484   | 539   | 598   | 682   |
| <b>100L</b> | 310 | 198 | 379   | 392   | 437   | 456   | 492   | 566   | 625   | 694   |
| <b>112M</b> | 330 | 222 | -     | -     | -     | -     | -     | 566   | 625   | 694   |
| <b>132S</b> | 380 | 260 | -     | -     | -     | -     | -     | 566   | 625   | 716   |
| <b>132M</b> | 420 | 260 | -     | -     | -     | -     | -     | 566   | 625   | 716   |
| <b>160M</b> | 480 | 320 | -     | -     | -     | -     | -     | -     | -     | 724   |
| <b>160L</b> | 530 | 320 | -     | -     | -     | -     | -     | -     | -     | 724   |

# F SERIES

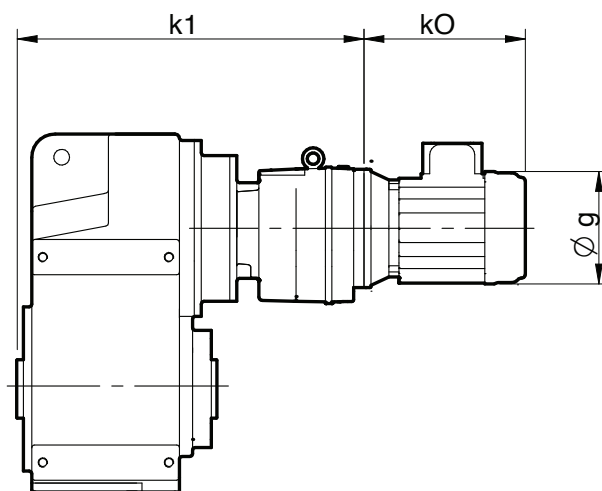
## DIMENSIONS

### UNITS WITH COMPACT MOTOR



#### Double / Triple Reduction

|         |     | F0223 |     | F0233 |     | F0323 |     | F0333 |     | F0423 |     | F0433 |     | F0523 |     | F0533 |     | F0623 |     | F0633 |     | F0723 |     | F0733 |     | F0823 |     | F0833 |     | F0933 |     |
|---------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
|         | g   | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  |
| 0.25 Kw | 140 | 120   | 222 | 135   | 222 | 124   | 222 | 137   | 222 | 137   | 222 | 150   | 222 | -     | -   | 174   | 222 | -     | -   | 193   | 222 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   |
| 0.37 Kw | 140 | 120   | 222 | 135   | 222 | 124   | 222 | 137   | 222 | 137   | 222 | 150   | 222 | -     | -   | 174   | 222 | -     | -   | 193   | 222 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   |
| 0.55 Kw | 160 | 120   | 277 | 135   | 277 | 124   | 277 | 137   | 277 | 137   | 277 | 150   | 277 | 166   | 262 | 174   | 277 | 185   | 262 | 193   | 277 | -     | -   | 264   | 262 | -     | -   | -     | -   | -     | -   |
| 0.75 Kw | 160 | 120   | 277 | 135   | 277 | 124   | 277 | 137   | 277 | 137   | 277 | 150   | 277 | 166   | 262 | 174   | 277 | 185   | 262 | 193   | 277 | -     | -   | 264   | 262 | -     | -   | -     | -   | -     | -   |
| 1.1 Kw  | 180 | 120   | 332 | 135   | 332 | 124   | 332 | 137   | 332 | 137   | 332 | 150   | 332 | 166   | 317 | 174   | 332 | 185   | 317 | 193   | 332 | 220   | 303 | 264   | 317 | -     | -   | 278   | 303 | -     | -   |
| 1.5 Kw  | 180 | 120   | 332 | 135   | 332 | 124   | 332 | 137   | 332 | 137   | 332 | 150   | 332 | 166   | 317 | 174   | 332 | 185   | 317 | 193   | 332 | 220   | 303 | 264   | 317 | -     | -   | 278   | 303 | -     | -   |
| 2.2 Kw  | 200 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 166   | 353 | -     | -   | 185   | 353 | -     | -   | 220   | 339 | 264   | 353 | 248   | 330 | 278   | 339 | 333   | 330 |
| 3.0 Kw  | 200 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 166   | 353 | -     | -   | 185   | 353 | -     | -   | 220   | 339 | 264   | 353 | 248   | 330 | 278   | 339 | 333   | 330 |
| 4.0 Kw  | 225 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 166   | 385 | -     | -   | 185   | 385 | -     | -   | 220   | 371 | 264   | 385 | 248   | 362 | 278   | 371 | 333   | 362 |
| 5.5 Kw  | 260 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 166   | 447 | -     | -   | 185   | 447 | -     | -   | 220   | 433 | 264   | 447 | 248   | 424 | 278   | 433 | 333   | 424 |
| 7.5 Kw  | 260 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 166   | 447 | -     | -   | 185   | 447 | -     | -   | 220   | 433 | 264   | 447 | 248   | 424 | 278   | 433 | 333   | 424 |

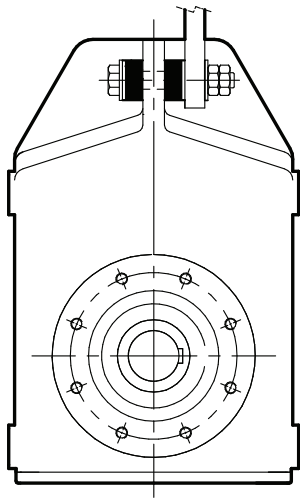


#### Quadruple Reduction

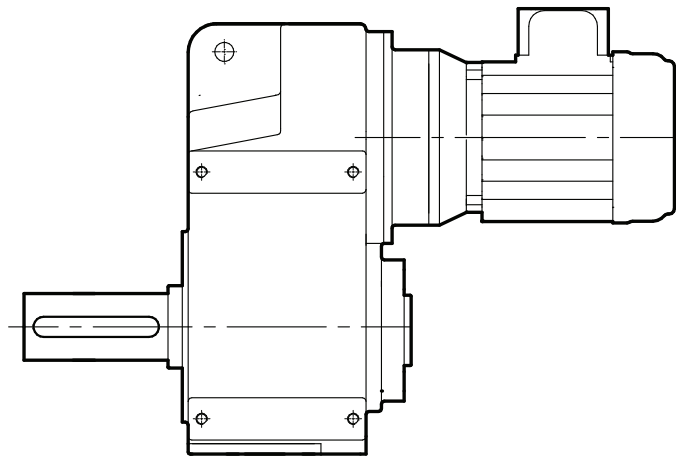
|         |     | F0343 |     | F0443 |     | F0543 |     | F0643 |     | F0743 |     | F0843 |     | F0943 |     | F1043 |     |
|---------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
|         | g   | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  | K1    | Ko  |
| 0.25 Kw | 140 | 310   | 222 | 323   | 222 | 368   | 222 | 387   | 222 | 423   | 222 | -     | -   | -     | -   | -     | -   |
| 0.37 Kw | 140 | 310   | 222 | 323   | 222 | 368   | 222 | 387   | 222 | 423   | 222 | -     | -   | -     | -   | -     | -   |
| 0.55 Kw | 160 | 310   | 277 | 323   | 277 | 368   | 277 | 387   | 277 | 423   | 277 | 493   | 262 | 552   | 262 | -     | -   |
| 0.75 Kw | 160 | 310   | 277 | 323   | 277 | 368   | 277 | 387   | 277 | 423   | 277 | 493   | 262 | 552   | 262 | -     | -   |
| 1.1 Kw  | 180 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 493   | 317 | 552   | 317 | 635   | 303 |
| 1.5 Kw  | 180 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 493   | 317 | 552   | 317 | 635   | 303 |
| 2.2 Kw  | 200 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 493   | 353 | 552   | 353 | 635   | 339 |
| 3.0 Kw  | 200 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 493   | 353 | 552   | 353 | 635   | 339 |
| 4.0 Kw  | 225 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 635   | 371 |
| 5.5 Kw  | 260 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 635   | 433 |
| 7.5 Kw  | 260 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | 635   | 433 |

# F SERIES

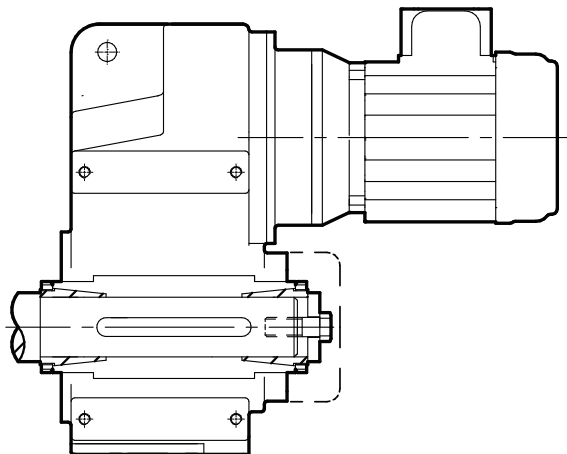
## OPTIONS



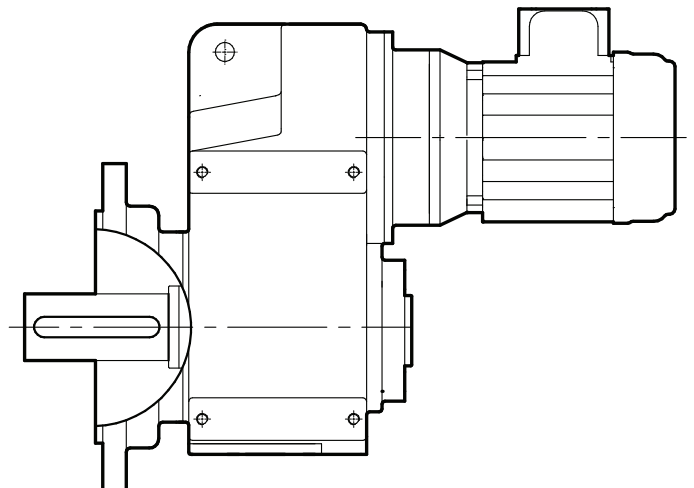
**Torque Bush**



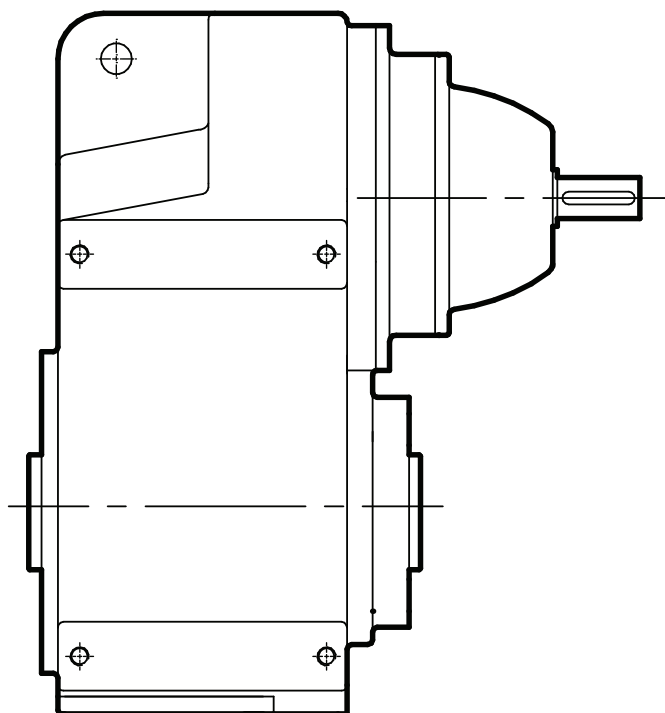
**Output Shaft**



**Kibo Bushing**



**Output Shaft with  
B5 (D) Flange Mounting**



**REDUCER**  
**F SERIES**



# F SERIES

## OVERHUNG & AXIAL LOADS ON SHAFTS

### Maximum Permissible Overhung Loads

When a sprocket, gear etc. is mounted on the shaft a calculation, as below, must be made to determine the overhung load on the shaft, and the results compared to the maximum permissible overhung loads tabulated. Overhung loads can be reduced by increasing the diameter of the sprocket, gear, etc. If the maximum permissible overhung load is exceeded, the sprocket, gear, etc. should be mounted on a separate shaft, flexibly coupled and supported in its own bearings, or the gear unit shaft should be extended to run in an outboard bearing. Alternatively, a larger gear is often a less expensive solution.

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 P 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 Application Engineering 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.

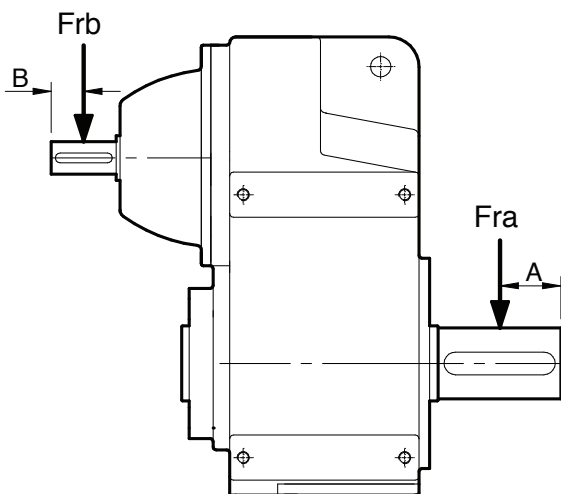
### Overhung Load (Newtons)

$$P = \frac{\text{kW} \times 9,500,000 \times K}{N \times R}$$

Where

|    |   |                                            |
|----|---|--------------------------------------------|
| P  | = | equivalent overhung load (Newtons)         |
| kW | = | power transmitted by the shaft (kilowatts) |
| N  | = | speed of shaft (rev/min)                   |
| R  | = | pitch radius of sprocket, etc. (mm)        |
| K  | = | factor                                     |

Note: 1 Newton = 0.101972 kp = 0.227809 lbf.



### Overhung Member K (factor)

|                        |      |
|------------------------|------|
| Chain sprocket*        | 1.00 |
| Spur or helical pinion | 1.25 |
| Vee belt sheave        | 1.50 |
| Flat belt pulley       | 2.00 |

\* If multistrand chain drives are equally loaded and the outer strand is further than dimension A output or B input, refer to Application Engineering.

### Distance Midway Along the Shaft Extension

| Size of unit | No of Reductions | Dimension A (mm) | Dimension B (mm) |
|--------------|------------------|------------------|------------------|
| F02          | 2                | -                | 20               |
|              | 3                | -                | 20               |
| F03          | 2                | 24               | 20               |
|              | 3                | 24               | 20               |
|              | 4                | 24               | 20               |
| F04          | 2                | 28               | 20               |
|              | 3                | 28               | 20               |
|              | 4                | 28               | 20               |
| F05          | 2                | 33               | 20               |
|              | 3                | 33               | 20               |
|              | 4                | 33               | 20               |
| F06          | 2                | 38               | 20               |
|              | 3                | 38               | 20               |
|              | 4                | 38               | 20               |
| F07          | 2                | 48               | 25               |
|              | 3                | 48               | 20               |
|              | 4                | 48               | 20               |
| F08          | 2                | 55               | 30               |
|              | 3                | 55               | 25               |
|              | 4                | 55               | 20               |
| F09          | 2                | 68               | 40               |
|              | 3                | 68               | 30               |
|              | 4                | 68               | 20               |
| F10          | 2                | 85               | 55               |
|              | 3                | 85               | 40               |
|              | 4                | 95               | 25               |

### Inputshaft Overhung Loads, Frb (kN) 1450 rpm

Two, Three and Four Stage Units

|         | F02  | F03  | F04  | F05  | F06  | F07  | F08  | F09  | F10  |
|---------|------|------|------|------|------|------|------|------|------|
| 2 Stage | 1.50 | 1.50 | 1.25 | 1.05 | 2.10 | 2.10 | 3.10 | 3.50 | 4.50 |
| 3 Stage | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.80 | 2.25 | 3.50 | 4.20 |
| 4 Stage | -    | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.80 |

### For Output Shaft Overhung Loads (Fra) Consult the Ratings Tables

### Axial Thrust Capacities (Newtons)

No check or calculation is required if the axial thrust load (FA) towards or away from the unit is under 50% of the permissible overhung load. If the axial thrust considerably exceeds these values or if there is a combination of axial thrust loads and overhung loads please contact our Application Engineers.

## THERMAL POWER RATING

### Thermal Ratings kW

Thermal ratings are a measure of the units ability to dissipate heat, if they are exceeded the lubricant may break down resulting in premature gear failure.

Thermal rating are based on an ambient temperature of 25°C, where units are to operate in other ambient temperatures thermal ratings must be adjusted by the following factors

### Ambient Temp Modifying Factor Ft

| -20°C | -10°C | 0°C  | 10°C | 20°C | 25°C | 35°C | 40°C | 45°C | 50°C |
|-------|-------|------|------|------|------|------|------|------|------|
| 1.54  | 1.42  | 1.30 | 1.18 | 1.06 | 1.00 | 0.88 | 0.82 | 0.76 | 0.70 |

### Units without additional cooling

| n1<br>(rpm) | iN<br>(:1) | F0223 | F0323 | F0423 | F0523 | F0623 | F0723 | F0823 | F0923 | F1023 |
|-------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2900        | ≥ 16       | 5.2   | 7.9   | 9.7   | 14    | 20    | 29    | 46    | 66    | 98    |
| 1750        |            | 4.7   | 7.1   | 8.9   | 13    | 18    | 26    | 41    | 59    | 88    |
| 1450        |            | 3.5   | 5.3   | 6.6   | 9.4   | 14    | 19    | 31    | 44    | 66    |
| 960         |            | 4.9   | 6.8   | 8.6   | 13    | 17    | 26    | 40    | 55    | 78    |
| 2900        | 20 - 22    | 4.2   | 6.0   | 7.4   | 11    | 15    | 23    | 35    | 49    | 70    |
| 1750        |            | 3.8   | 5.4   | 6.6   | 10    | 14    | 21    | 31    | 45    | 63    |
| 1450        |            | 2.8   | 4.0   | 5.0   | 7.6   | 10    | 15    | 24    | 33    | 47    |
| 960         |            | 4.2   | 5.8   | 7.1   | 11    | 15    | 22    | 33    | 48    | 69    |
| 2900        | 25 - 28    | 3.6   | 5.0   | 6.2   | 9.4   | 12    | 19    | 28    | 42    | 61    |
| 1750        |            | 3.2   | 4.5   | 5.5   | 8.4   | 11    | 17    | 25    | 37    | 53    |
| 1450        |            | 2.4   | 3.3   | 4.1   | 6.2   | 8.2   | 12    | 19    | 28    | 40    |
| 960         |            | 3.6   | 5.0   | 6.1   | 9.2   | 13    | 19    | 29    | 41    | 60    |
| 2900        | 32 - 36    | 3.0   | 4.2   | 5.2   | 7.8   | 11    | 16    | 25    | 35    | 51    |
| 1750        |            | 2.6   | 3.7   | 4.6   | 6.9   | 9.3   | 14    | 22    | 31    | 45    |
| 1450        |            | 2.0   | 2.7   | 3.4   | 5.1   | 6.8   | 10    | 16    | 23    | 33    |
| 960         |            | 2.9   | 4.1   | 5.2   | 7.8   | 11    | 16    | 22    | 34    | 49    |
| 2900        | 40 - 50    | 2.4   | 3.4   | 4.3   | 6.4   | 8.6   | 13    | 18    | 28    | 39    |
| 1750        |            | 2.1   | 3.0   | 3.8   | 5.6   | 7.6   | 11    | 16    | 25    | 35    |
| 1450        |            | 1.5   | 2.2   | 2.8   | 4.1   | 5.6   | 8.4   | 12    | 18    | 26    |
| 960         |            | 2.2   | 3.1   | 3.9   | 5.9   | 7.8   | 12    | 18    | 26    | 37    |

| n1<br>(rpm) | iN<br>(:1) | F0233 | F0333 | F0433 | F0533 | F0633 | F0733 | F0833 | F0933 | F1033 |
|-------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2900        | ≥ 160      | 1.9   | 2.6   | 3.3   | 4.8   | 6.7   | 10    | 15    | 22    | 32    |
| 1750        |            | 1.3   | 1.8   | 2.4   | 3.5   | 4.8   | 7.5   | 11    | 16    | 23    |
| 1450        |            | 1.1   | 1.6   | 2.0   | 3.0   | 4.1   | 6.4   | 9.4   | 14    | 20    |
| 960         |            | 0.8   | 1.1   | 1.4   | 2.1   | 2.9   | 4.5   | 6.5   | 9.7   | 14    |
| 2900        | ≥ 180      | 1.6   | 2.2   | 2.8   | 4.2   | 5.7   | 8.8   | 13    | 19    | 27    |
| 1750        |            | 1.1   | 1.5   | 1.8   | 2.8   | 3.8   | 5.9   | 8.6   | 13    | 18    |
| 1450        |            | 0.9   | 1.2   | 1.6   | 2.4   | 3.2   | 5.0   | 7.3   | 11    | 15    |
| 960         |            | 0.6   | 0.9   | 1.1   | 1.6   | 2.2   | 3.4   | 5.0   | 7.5   | 11    |

### Units with fan cooling

| n1<br>(rpm) | iN<br>(:1) | F0723 | F0823 | F0923 | F1023 |
|-------------|------------|-------|-------|-------|-------|
| 2900        | ≥ 16       | -     | -     | -     | -     |
| 1750        |            | 43    | 64    | 91    | 132   |
| 1450        |            | 40    | 60    | 85    | 123   |
| 960         |            | 35    | 53    | 75    | 108   |
| 2900        | 20 - 22    | -     | -     | -     | -     |
| 1750        |            | 34    | 49    | 69    | 95    |
| 1450        |            | 32    | 46    | 65    | 89    |
| 960         |            | 28    | 40    | 57    | 78    |
| 2900        | 25 - 28    | -     | -     | -     | -     |
| 1750        |            | 28    | 40    | 57    | 80    |
| 1450        |            | 26    | 37    | 53    | 75    |
| 960         |            | 23    | 32    | 47    | 66    |

Note: When checking thermal capacities use actual load required to be transmitted, not rating of prime mover.

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

|       |     |       | n1 = 1450 |     |       |      | n1 = 960 |     |       |      | n1 = 2900 |     |      |      | n1 = 725 |     |       |      |
|-------|-----|-------|-----------|-----|-------|------|----------|-----|-------|------|-----------|-----|------|------|----------|-----|-------|------|
|       | in  | i     | n2        | M2  | Pm    | Fra  | n2       | M2  | Pm    | Fra  | n2        | M2  | Pm   | Fra  | n2       | M2  | Pm    | Fra  |
| F0223 | 5.0 | 5.903 | 245.7     | 63  | 1.66  | 1.38 | 162.6    | 68  | 1.19  | 1.60 | 491.3     | 52  | 2.74 | 1.07 | 122.8    | 72  | 0.95  | 1.78 |
|       | 6.3 | 7.974 | 181.8     | 73  | 1.43  | 1.54 | 120.4    | 79  | 1.02  | 1.54 | 363.7     | 61  | 2.38 | 1.19 | 90.9     | 84  | 0.82  | 1.98 |
|       | 9.0 | 9.069 | 159.9     | 78  | 1.34  | 1.61 | 105.9    | 84  | 0.95  | 1.61 | 319.8     | 65  | 2.23 | 1.25 | 79.9     | 89  | 0.76  | 2.08 |
|       | 10. | 10.27 | 141.1     | 83  | 1.25  | 1.68 | 93.4     | 88  | 0.88  | 1.68 | 282.2     | 68  | 2.06 | 1.31 | 70.6     | 94  | 0.71  | 2.17 |
|       | 12. | 13.14 | 110.3     | 91  | 1.08  | 1.84 | 73.1     | 97  | 0.76  | 1.84 | 220.7     | 75  | 1.78 | 1.43 | 55.2     | 104 | 0.62  | 2.37 |
|       | 14. | 14.16 | 102.4     | 94  | 1.03  | 1.89 | 67.8     | 100 | 0.73  | 1.89 | 204.8     | 76  | 1.67 | 1.47 | 51.2     | 108 | 0.59  | 2.44 |
|       | 16. | 17.88 | 81.1      | 101 | 0.88  | 2.06 | 53.7     | 110 | 0.63  | 2.06 | 162.2     | 85  | 1.48 | 1.6  | 40.6     | 120 | 0.52  | 2.67 |
|       | 20. | 20.27 | 71.5      | 106 | 0.81  | 2.16 | 47.4     | 116 | 0.59  | 2.16 | 143.1     | 89  | 1.37 | 1.68 | 35.8     | 127 | 0.49  | 2.8  |
|       | 22. | 23.16 | 62.6      | 110 | 0.74  | 2.27 | 41.4     | 123 | 0.55  | 2.27 | 125.2     | 93  | 1.25 | 1.76 | 31.3     | 129 | 0.43  | 2.93 |
|       | 25. | 25.77 | 56.3      | 114 | 0.69  | 2.36 | 37.3     | 129 | 0.52  | 2.36 | 112.6     | 96  | 1.16 | 1.83 | 28.1     | 130 | 0.39  | 3.04 |
|       | 28. | 28.41 | 51.0      | 117 | 0.64  | 2.44 | 33.8     | 130 | 0.47  | 2.86 | 102.1     | 99  | 1.09 | 1.89 | 25.5     | 130 | 0.36  | 3.17 |
|       | 32. | 31.26 | 46.4      | 121 | 0.60  | 2.53 | 30.7     | 130 | 0.43  | 2.96 | 92.8      | 102 | 1.02 | 1.97 | 23.2     | 130 | 0.32  | 3.26 |
|       | 36. | 36.63 | 39.6      | 130 | 0.55  | 2.69 | 26.2     | 130 | 0.37  | 3.12 | 79.2      | 107 | 0.91 | 2.08 | 19.8     | 130 | 0.28  | 3.5  |
|       | 40. | 43.94 | 33.0      | 130 | 0.46  | 2.89 | 21.8     | 130 | 0.31  | 3.37 | 66.0      | 112 | 0.79 | 2.23 | 16.5     | 130 | 0.23  | 3.73 |
|       | 50. | 51.22 | 28.3      | 130 | 0.40  | 3.04 | 18.7     | 130 | 0.26  | 3.57 | 56.6      | 117 | 0.71 | 2.36 | 14.2     | 130 | 0.20  | 3.91 |
|       | 56. | 56.91 | 25.5      | 130 | 0.36  | 3.17 | 16.9     | 130 | 0.24  | 3.73 | 51.0      | 122 | 0.67 | 2.46 | 12.7     | 130 | 0.18  | 4.14 |
|       | 63. | 68.54 | 21.2      | 130 | 0.30  | 3.37 | 14.0     | 130 | 0.20  | 3.85 | 42.3      | 130 | 0.59 | 2.62 | 10.6     | 130 | 0.15  | 3.85 |
|       | 71. | 78.56 | 18.5      | 126 | 0.25  | 3.57 | 12.2     | 126 | 0.17  | 3.85 | 36.9      | 127 | 0.50 | 2.77 | 9.23     | 127 | 0.13  | 3.85 |
|       | 90. | 89.28 | 16.2      | 113 | 0.20  | 3.73 | 10.8     | 113 | 0.13  | 3.85 | 32.5      | 113 | 0.39 | 2.89 | 8.12     | 113 | 0.10  | 3.85 |
| F0233 | 80. | 82.72 | 17.5      | 130 | 0.25  | 3.81 | 11.6     | 135 | 0.17  | 3.85 | 35.1      | 128 | 0.49 | 2.93 | 8.76     | 141 | 0.13  | 3.85 |
|       | 90. | 92.02 | 15.8      | 130 | 0.22  | 3.85 | 10.4     | 137 | 0.16  | 3.85 | 31.5      | 130 | 0.44 | 3.04 | 7.88     | 144 | 0.12  | 3.85 |
|       | 100 | 101.5 | 14.3      | 130 | 0.20  | 3.85 | 9.46     | 139 | 0.14  | 3.85 | 28.6      | 130 | 0.40 | 3.17 | 7.15     | 146 | 0.11  | 3.85 |
|       | 112 | 111.6 | 13.0      | 130 | 0.18  | 3.85 | 8.60     | 143 | 0.13  | 3.85 | 26.0      | 130 | 0.37 | 3.32 | 6.49     | 147 | 0.10  | 3.85 |
|       | 125 | 130.8 | 11.1      | 133 | 0.16  | 3.85 | 7.34     | 147 | 0.12  | 3.85 | 22.2      | 130 | 0.31 | 3.57 | 5.54     | 147 | 0.088 | 3.85 |
|       | 160 | 156.9 | 9.24      | 141 | 0.14  | 3.85 | 6.12     | 147 | 0.098 | 3.85 | 18.5      | 130 | 0.26 | 3.81 | 4.62     | 147 | 0.074 | 3.85 |
|       | 180 | 182.9 | 7.93      | 144 | 0.12  | 3.85 | 5.25     | 147 | 0.084 | 3.85 | 15.9      | 130 | 0.22 | 3.85 | 3.96     | 147 | 0.063 | 3.85 |
|       | 200 | 203.3 | 7.13      | 147 | 0.11  | 3.85 | 4.72     | 147 | 0.075 | 3.85 | 14.3      | 130 | 0.20 | 3.85 | 3.57     | 147 | 0.057 | 3.85 |
|       | 225 | 244.8 | 5.92      | 147 | 0.094 | 3.85 | 3.92     | 147 | 0.063 | 3.85 | 11.8      | 132 | 0.17 | 3.85 | 2.96     | 147 | 0.047 | 3.85 |
|       | 280 | 280.6 | 5.17      | 147 | 0.082 | 3.85 | 3.42     | 147 | 0.055 | 3.85 | 10.3      | 132 | 0.15 | 3.85 | 2.58     | 147 | 0.041 | 3.85 |
| F0323 | 320 | 318.8 | 4.55      | 147 | 0.073 | 3.85 | 3.01     | 147 | 0.048 | 3.85 | 9.10      | 138 | 0.14 | 3.85 | 2.27     | 147 | 0.036 | 3.85 |
|       | 6.3 | 6.648 | 218.1     | 154 | 3.61  | 2.62 | 144.4    | 167 | 2.59  | 3.09 | 436.2     | 129 | 6.04 | 2.44 | 109.0    | 177 | 2.07  | 3.46 |
|       | 9.0 | 8.980 | 161.5     | 179 | 3.10  | 2.82 | 106.9    | 194 | 2.23  | 3.34 | 322.9     | 154 | 5.34 | 2.13 | 80.73    | 201 | 1.74  | 3.77 |
|       | 10. | 10.21 | 142.0     | 189 | 2.88  | 2.93 | 93.99    | 205 | 2.07  | 3.47 | 283.9     | 164 | 5.00 | 2.22 | 70.98    | 204 | 1.56  | 4.00 |
|       | 12. | 11.57 | 125.3     | 201 | 2.70  | 3.02 | 82.96    | 216 | 1.92  | 3.59 | 250.6     | 174 | 4.68 | 2.26 | 62.65    | 216 | 1.45  | 4.13 |
|       | 14. | 14.80 | 98.0      | 220 | 2.31  | 3.26 | 64.87    | 223 | 1.55  | 4.00 | 195.9     | 192 | 4.04 | 2.44 | 48.99    | 223 | 1.17  | 4.60 |
|       | 16. | 15.95 | 90.9      | 227 | 2.22  | 3.33 | 60.19    | 232 | 1.50  | 4.07 | 181.8     | 198 | 3.87 | 2.48 | 45.46    | 232 | 1.13  | 4.67 |
|       | 20. | 20.14 | 72.0      | 239 | 1.85  | 3.60 | 47.68    | 239 | 1.22  | 4.50 | 144.0     | 215 | 3.33 | 2.67 | 36.01    | 339 | 1.31  | 5.00 |
|       | 22. | 22.83 | 63.5      | 246 | 1.68  | 3.84 | 42.05    | 246 | 1.11  | 4.73 | 127.0     | 225 | 3.07 | 2.79 | 31.76    | 246 | 0.84  | 5.00 |
|       | 25. | 26.09 | 55.6      | 250 | 1.49  | 4.08 | 36.80    | 250 | 0.99  | 5.00 | 111.1     | 234 | 2.79 | 2.94 | 27.79    | 250 | 0.75  | 5.00 |
| F0333 | 28. | 29.02 | 50.0      | 250 | 1.34  | 4.31 | 33.08    | 250 | 0.89  | 5.00 | 99.94     | 236 | 2.53 | 3.09 | 24.98    | 250 | 0.67  | 5.00 |
|       | 32. | 31.99 | 45.3      | 250 | 1.22  | 4.53 | 30.01    | 250 | 0.81  | 5.00 | 90.65     | 240 | 2.34 | 3.33 | 22.66    | 250 | 0.61  | 5.00 |
|       | 36. | 35.21 | 41.2      | 250 | 1.11  | 4.74 | 27.27    | 250 | 0.73  | 5.00 | 82.37     | 243 | 2.15 | 3.37 | 20.59    | 250 | 0.55  | 5.00 |
|       | 40. | 41.25 | 35.2      | 248 | 0.94  | 5.00 | 23.27    | 250 | 0.62  | 5.00 | 70.30     | 232 | 1.75 | 3.76 | 17.58    | 250 | 0.47  | 5.00 |
|       | 50. | 49.49 | 29.3      | 217 | 0.68  | 5.00 | 19.40    | 228 | 0.47  | 5.00 | 58.60     | 204 | 1.28 | 4.37 | 14.65    | 230 | 0.36  | 5.00 |
|       | 56. | 57.69 | 25.1      | 190 | 0.51  | 5.00 | 16.64    | 199 | 0.36  | 5.00 | 50.27     | 178 | 0.96 | 4.92 | 12.57    | 205 | 0.28  | 5.00 |
|       | 63. | 64.10 | 22.6      | 179 | 0.43  | 5.00 | 14.98    | 187 | 0.30  | 5.00 | 45.24     | 168 | 0.82 | 5.00 | 11.31    | 186 | 0.23  | 5.00 |
|       | 71. | 77.19 | 18.8      | 149 | 0.30  | 5.00 | 12.44    | 149 | 0.20  | 5.00 | 37.57     | 149 | 0.60 | 5.00 | 9.39     | 149 | 0.15  | 5.00 |
|       | 90. | 88.47 | 16.4      | 128 | 0.23  | 5.00 | 10.85    | 128 | 0.15  | 5.00 | 32.78     | 128 | 0.45 | 5.00 | 8.19     | 128 | 0.11  | 5.00 |
|       | 100 | 100.5 | 14.4      | 127 | 0.20  | 5.00 | 9.55     | 126 | 0.13  | 5.00 | 28.84     | 126 | 0.39 | 5.00 | 7.21     | 126 | 0.10  | 5.00 |
| F0333 | 71. | 71.91 | 20.2      | 250 | 0.55  | 5.00 | 13.35    | 250 | 0.36  | 5.00 | 40.33     | 220 | 0.96 | 5.00 | 10.08    | 250 | 0.27  | 5.00 |
|       | 80. | 81.53 | 17.8      | 250 | 0.48  | 5.00 | 11.78    | 250 | 0.32  | 5.00 | 35.57     | 235 | 0.91 | 5.00 | 8.89     | 250 | 0.24  | 5.00 |
|       | 90. | 93.16 | 15.6      | 250 | 0.42  | 5.00 | 10.30    | 250 | 0.28  | 5.00 | 31.13     | 245 | 0.83 | 5.00 | 7.78     | 250 | 0.21  | 5.00 |
|       | 100 | 103.6 | 14.0      | 250 | 0.38  | 5.00 | 9.26     | 250 | 0.25  | 5.00 | 27.98     | 250 | 0.76 | 5.00 | 7.00     | 250 | 0.19  | 5.00 |
|       | 112 | 114.3 | 12.7      | 250 | 0.34  | 5.00 | 8.40     | 250 | 0.23  | 5.00 | 25.38     | 250 | 0.69 | 5.00 | 6.35     | 250 | 0.17  | 5.00 |
|       | 125 | 125.7 | 11.5      | 250 | 0.31  | 5.00 | 7.63     | 250 | 0.21  | 5.00 | 23.06     | 250 | 0.63 | 5.00 | 5.77     | 250 | 0.16  | 5.00 |
|       | 160 | 147.3 | 9.8       | 250 | 0.27  | 5.00 | 6.52     | 250 | 0.18  | 5.00 | 19.68     | 250 | 0.53 | 5.00 | 4.92     | 250 | 0.13  | 5.00 |
|       | 180 | 176.7 | 8.2       | 250 | 0.22  | 5.00 | 5.43     | 250 | 0.15  | 5.00 | 16.41     | 250 | 0.45 | 5.00 | 4.10     | 250 | 0.11  | 5.00 |
|       | 200 | 206.0 | 7.0       | 250 | 0.19  | 5.00 | 4.66     | 250 | 0.13  | 5.00 | 14.08     | 250 | 0.38 | 5.00 | 3.52     | 250 | 0.095 | 5.00 |
|       | 225 | 228.9 | 6.3       | 250 | 0.17  | 5.00 | 4.19     | 250 | 0.11  | 5.00 | 12.67     | 250 | 0.34 | 5.00 | 3.17     | 250 | 0.086 | 5.00 |
| F0333 | 280 | 275.7 | 5.3       | 250 | 0.14  | 5.00 | 3.48     | 250 | 0.094 | 5.00 | 10.52     | 250 | 0.29 | 5.00 | 2.63     | 250 | 0.071 | 5.00 |
|       | 320 | 316.0 | 4.6       | 250 | 0.12  | 5.00 | 3.04     | 250 | 0.082 | 5.00 | 9.18      | 250 | 0.25 | 5.00 | 2.29     | 250 | 0.062 | 5.00 |
|       | 360 | 359.1 | 4.0       | 250 | 0.11  | 5.00 | 2.67     | 250 | 0.073 | 5.00 | 8.08      | 250 | 0.22 | 5.00 | 2.02     | 250 | 0.055 | 5.00 |

**Note:** Input power Pm may exceed thermal power rating

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

|       |       |       | n1 = 1450 |       |       |       | n1 = 960 |       |       |       | n1 = 2900 |       |       |      | n1 = 725 |       |       |      |
|-------|-------|-------|-----------|-------|-------|-------|----------|-------|-------|-------|-----------|-------|-------|------|----------|-------|-------|------|
|       | in    | i     | n2        | M2    | Pm    | Fra   | n2       | M2    | Pm    | Fra   | n2        | M2    | Pm    | Fra  | n2       | M2    | Pm    | Fra  |
| F0343 | 400   | 399.9 | 3.6       | 250   | 0.10  | 5.00  | 2.40     | 250   | 0.066 | 5.00  | 7.25      | 250   | 0.200 | 5.00 | 1.81     | 250   | 0.050 | 5.00 |
|       | 450   | 453.4 | 3.2       | 250   | 0.088 | 5.00  | 2.12     | 250   | 0.058 | 5.00  | 6.40      | 250   | 0.176 | 5.00 | 1.60     | 250   | 0.044 | 5.00 |
|       | 500   | 518.1 | 2.8       | 250   | 0.077 | 5.00  | 1.85     | 250   | 0.051 | 5.00  | 5.60      | 250   | 0.154 | 5.00 | 1.40     | 250   | 0.039 | 5.00 |
|       | 560   | 576.3 | 2.5       | 250   | 0.069 | 5.00  | 1.67     | 250   | 0.046 | 5.00  | 5.03      | 250   | 0.139 | 5.00 | 1.26     | 250   | 0.035 | 5.00 |
|       | 630   | 635.4 | 2.3       | 250   | 0.063 | 5.00  | 1.51     | 250   | 0.042 | 5.00  | 4.56      | 250   | 0.126 | 5.00 | 1.14     | 250   | 0.031 | 5.00 |
|       | 720   | 699.3 | 2.1       | 250   | 0.057 | 5.00  | 1.37     | 250   | 0.038 | 5.00  | 4.15      | 250   | 0.114 | 5.00 | 1.04     | 250   | 0.029 | 5.00 |
|       | 800   | 819.3 | 1.8       | 250   | 0.049 | 5.00  | 1.17     | 250   | 0.032 | 5.00  | 3.54      | 250   | 0.098 | 5.00 | 0.88     | 250   | 0.024 | 5.00 |
|       | 900   | 893.1 | 1.6       | 250   | 0.045 | 5.00  | 1.07     | 250   | 0.030 | 5.00  | 3.25      | 250   | 0.089 | 5.00 | 0.81     | 250   | 0.022 | 5.00 |
|       | 10c   | 982.9 | 1.5       | 250   | 0.041 | 5.00  | 0.98     | 250   | 0.027 | 5.00  | 2.95      | 250   | 0.081 | 5.00 | 0.74     | 250   | 0.020 | 5.00 |
|       | 11c   | 1146  | 1.3       | 250   | 0.035 | 5.00  | 0.84     | 250   | 0.023 | 5.00  | 2.53      | 250   | 0.070 | 5.00 | 0.63     | 250   | 0.017 | 5.00 |
|       | 12c   | 1273  | 1.1       | 250   | 0.031 | 5.00  | 0.75     | 250   | 0.021 | 5.00  | 2.28      | 250   | 0.063 | 5.00 | 0.57     | 250   | 0.016 | 5.00 |
|       | 14c   | 1382  | 1.0       | 250   | 0.029 | 5.00  | 0.69     | 250   | 0.019 | 5.00  | 2.10      | 250   | 0.058 | 5.00 | 0.52     | 250   | 0.014 | 5.00 |
|       | 16c   | 1610  | 0.90      | 250   | 0.025 | 5.00  | 0.60     | 250   | 0.016 | 5.00  | 1.80      | 250   | 0.050 | 5.00 | 0.45     | 250   | 0.012 | 5.00 |
|       | 18c   | 1796  | 0.81      | 250   | 0.022 | 5.00  | 0.53     | 250   | 0.015 | 5.00  | 1.61      | 250   | 0.044 | 5.00 | 0.40     | 250   | 0.011 | 5.00 |
|       | 20c   | 2086  | 0.70      | 245   | 0.019 | 5.00  | 0.46     | 245   | 0.012 | 5.00  | 1.39      | 245   | 0.038 | 5.00 | 0.35     | 245   | 0.009 | 5.00 |
|       | 22c   | 2155  | 0.67      | 245   | 0.018 | 5.00  | 0.45     | 245   | 0.012 | 5.00  | 1.35      | 245   | 0.036 | 5.00 | 0.34     | 245   | 0.009 | 5.00 |
|       | 25c   | 2512  | 0.58      | 245   | 0.016 | 5.00  | 0.38     | 245   | 0.010 | 5.00  | 1.15      | 245   | 0.031 | 5.00 | 0.29     | 245   | 0.008 | 5.00 |
| 28c   | 2791  | 0.52  | 245       | 0.014 | 5.00  | 0.34  | 245      | 0.009 | 5.00  | 1.04  | 245       | 0.028 | 5.00  | 0.26 | 245      | 0.007 | 5.00  |      |
| 32c   | 3199  | 0.45  | 245       | 0.012 | 5.00  | 0.30  | 245      | 0.008 | 5.00  | 0.91  | 245       | 0.024 | 5.00  | 0.23 | 245      | 0.006 | 5.00  |      |
| 36c   | 3852  | 0.38  | 190       | 0.008 | 5.00  | 0.25  | 190      | 0.005 | 5.00  | 0.75  | 190       | 0.016 | 5.00  | 0.19 | 190      | 0.004 | 5.00  |      |
| F0423 | 6.3   | 6.320 | 229.4     | 243   | 5.99  | 2.84  | 151.9    | 275   | 4.49  | 3.14  | 458.8     | 197   | 9.71  | 2.50 | 114.7    | 299   | 3.68  | 3.47 |
|       | 9.0   | 8.864 | 163.5     | 292   | 5.13  | 2.86  | 108.3    | 331   | 3.85  | 3.32  | 327.1     | 237   | 8.33  | 2.50 | 81.79    | 360   | 3.16  | 3.68 |
|       | 10.   | 9.768 | 148.4     | 307   | 4.89  | 2.91  | 98.28    | 348   | 3.67  | 3.38  | 296.8     | 249   | 7.94  | 2.50 | 74.22    | 370   | 2.95  | 3.81 |
|       | 12.   | 11.09 | 130.7     | 326   | 4.58  | 3.00  | 86.55    | 362   | 3.36  | 3.54  | 261.4     | 264   | 7.41  | 2.50 | 65.36    | 377   | 2.65  | 4.05 |
|       | 14.   | 14.09 | 102.9     | 352   | 3.89  | 3.25  | 68.14    | 374   | 2.74  | 3.98  | 205.8     | 295   | 6.52  | 2.50 | 51.46    | 391   | 2.16  | 4.53 |
|       | 16.   | 16.01 | 90.60     | 359   | 3.49  | 3.46  | 59.98    | 382   | 2.46  | 4.22  | 181.2     | 313   | 6.09  | 2.50 | 45.30    | 398   | 1.94  | 4.80 |
|       | 20.   | 19.64 | 73.82     | 370   | 2.93  | 3.82  | 48.87    | 394   | 2.07  | 4.64  | 147.6     | 335   | 5.31  | 2.70 | 36.91    | 410   | 1.63  | 5.28 |
|       | 22.   | 21.79 | 66.56     | 375   | 2.68  | 4.02  | 44.07    | 400   | 1.89  | 4.87  | 133.1     | 340   | 4.86  | 2.84 | 33.28    | 416   | 1.49  | 5.54 |
|       | 25.   | 24.75 | 58.59     | 384   | 2.42  | 4.26  | 38.79    | 407   | 1.70  | 5.16  | 117.2     | 346   | 4.35  | 3.05 | 29.29    | 420   | 1.32  | 5.86 |
|       | 28.   | 28.12 | 51.56     | 391   | 2.17  | 4.63  | 34.14    | 410   | 1.50  | 5.77  | 103.1     | 352   | 2.79  | 3.25 | 25.78    | 420   | 1.16  | 6.40 |
|       | 32.   | 30.97 | 46.82     | 396   | 1.99  | 4.89  | 31.00    | 420   | 1.40  | 6.06  | 93.65     | 358   | 3.60  | 3.40 | 23.41    | 420   | 1.06  | 6.40 |
|       | 36.   | 35.62 | 40.71     | 405   | 1.77  | 5.12  | 26.95    | 420   | 1.22  | 6.35  | 81.42     | 365   | 3.19  | 3.65 | 20.35    | 420   | 0.92  | 6.40 |
|       | 40.   | 38.72 | 37.44     | 410   | 1.65  | 5.53  | 24.79    | 420   | 1.12  | 6.61  | 74.89     | 369   | 2.97  | 3.80 | 18.72    | 420   | 0.84  | 6.40 |
|       | 50.   | 46.49 | 31.19     | 420   | 1.41  | 5.90  | 20.65    | 420   | 0.93  | 6.44  | 62.38     | 380   | 2.55  | 4.11 | 15.60    | 420   | 0.70  | 6.40 |
|       | 56.   | 55.79 | 25.99     | 415   | 1.16  | 6.26  | 17.21    | 420   | 0.78  | 6.10  | 51.98     | 374   | 2.09  | 4.64 | 13.00    | 420   | 0.59  | 6.40 |
|       | 63.   | 62.86 | 23.07     | 368   | 0.91  | 6.40  | 15.27    | 382   | 0.63  | 6.40  | 46.14     | 342   | 1.69  | 5.22 | 11.53    | 393   | 0.49  | 6.40 |
|       | 71.   | 73.07 | 19.84     | 320   | 0.68  | 6.40  | 13.14    | 331   | 0.47  | 6.40  | 39.69     | 296   | 1.26  | 6.00 | 9.92     | 341   | 0.36  | 6.40 |
| 90.   | 82.94 | 17.48 | 287       | 0.54  | 6.40  | 11.58 | 298      | 0.37  | 6.40  | 34.97 | 267       | 1.00  | 6.40  | 8.74 | 307      | 0.29  | 6.40  |      |
| 100   | 94.29 | 15.38 | 258       | 0.43  | 6.40  | 10.18 | 266      | 0.29  | 6.40  | 30.76 | 238       | 0.79  | 6.40  | 7.69 | 273      | 0.23  | 6.40  |      |
| F0433 | 71.   | 69.69 | 20.81     | 378   | 0.85  | 6.40  | 13.78    | 413   | 0.62  | 6.40  | 41.61     | 324   | 1.46  | 6.00 | 10.40    | 420   | 0.47  | 6.40 |
|       | 80.   | 79.00 | 18.35     | 395   | 0.79  | 6.40  | 12.15    | 420   | 0.55  | 6.40  | 36.71     | 340   | 1.35  | 6.25 | 9.18     | 420   | 0.42  | 6.40 |
|       | 90.   | 90.28 | 16.06     | 413   | 0.72  | 6.40  | 10.63    | 420   | 0.48  | 6.40  | 32.12     | 356   | 1.24  | 6.40 | 8.03     | 420   | 0.37  | 6.40 |
|       | 100   | 100.4 | 14.44     | 420   | 0.66  | 6.40  | 9.56     | 420   | 0.44  | 6.40  | 28.88     | 368   | 1.15  | 6.40 | 7.22     | 420   | 0.33  | 6.40 |
|       | 112   | 110.7 | 13.10     | 420   | 0.60  | 6.40  | 8.67     | 420   | 0.40  | 6.40  | 26.19     | 375   | 1.07  | 6.40 | 6.55     | 420   | 0.30  | 6.40 |
|       | 125   | 121.9 | 11.90     | 420   | 0.54  | 6.40  | 7.88     | 420   | 0.36  | 6.40  | 23.80     | 391   | 1.01  | 6.40 | 5.95     | 420   | 0.27  | 6.40 |
|       | 160   | 142.8 | 10.16     | 420   | 0.46  | 6.40  | 6.72     | 420   | 0.31  | 6.40  | 20.31     | 404   | 0.89  | 6.40 | 5.08     | 420   | 0.23  | 6.40 |
|       | 180   | 171.3 | 8.47      | 420   | 0.39  | 6.40  | 5.60     | 420   | 0.26  | 6.40  | 16.93     | 420   | 0.77  | 6.40 | 4.23     | 420   | 0.19  | 6.40 |
|       | 200   | 199.7 | 7.26      | 420   | 0.33  | 6.40  | 4.81     | 420   | 0.22  | 6.40  | 14.53     | 420   | 0.66  | 6.40 | 3.63     | 420   | 0.17  | 6.40 |
|       | 225   | 221.8 | 6.54      | 420   | 0.30  | 6.40  | 4.33     | 420   | 0.20  | 6.40  | 13.07     | 420   | 0.60  | 6.40 | 3.27     | 420   | 0.15  | 6.40 |
|       | 280   | 267.1 | 5.43      | 420   | 0.25  | 6.40  | 3.59     | 420   | 0.16  | 6.40  | 10.86     | 420   | 0.49  | 6.40 | 2.71     | 420   | 0.12  | 6.40 |
|       | 320   | 306.2 | 4.74      | 420   | 0.22  | 6.40  | 3.14     | 420   | 0.14  | 6.40  | 9.47      | 420   | 0.43  | 6.40 | 2.37     | 420   | 0.11  | 6.40 |
| 360   | 348.0 | 4.17  | 420       | 0.19  | 6.40  | 2.76  | 420      | 0.13  | 6.40  | 8.33  | 420       | 0.38  | 6.40  | 2.08 | 420      | 0.095 | 6.40  |      |
| F0443 | 400   | 398.8 | 3.64      | 420   | 0.17  | 6.40  | 2.41     | 420   | 0.11  | 6.40  | 7.27      | 420   | 0.34  | 6.40 | 1.82     | 420   | 0.084 | 6.40 |
|       | 450   | 455.7 | 3.18      | 420   | 0.15  | 6.40  | 2.11     | 420   | 0.098 | 6.40  | 6.36      | 420   | 0.29  | 6.40 | 1.59     | 420   | 0.074 | 6.40 |
|       | 500   | 506.9 | 2.86      | 420   | 0.13  | 6.40  | 1.89     | 420   | 0.088 | 6.40  | 5.72      | 420   | 0.26  | 6.40 | 1.43     | 420   | 0.066 | 6.40 |
|       | 560   | 558.8 | 2.59      | 420   | 0.12  | 6.40  | 1.72     | 420   | 0.080 | 6.40  | 5.19      | 420   | 0.24  | 6.40 | 1.30     | 420   | 0.060 | 6.40 |
|       | 630   | 615.0 | 2.36      | 420   | 0.11  | 6.40  | 1.56     | 420   | 0.072 | 6.40  | 4.72      | 420   | 0.22  | 6.40 | 1.18     | 420   | 0.055 | 6.40 |
|       | 710   | 707.4 | 2.05      | 420   | 0.095 | 6.40  | 1.36     | 420   | 0.063 | 6.40  | 4.10      | 420   | 0.19  | 6.40 | 1.02     | 420   | 0.047 | 6.40 |
|       | 800   | 828.8 | 1.75      | 420   | 0.081 | 6.40  | 1.16     | 420   | 0.054 | 6.40  | 3.50      | 420   | 0.16  | 6.40 | 0.87     | 420   | 0.040 | 6.40 |
|       | 900   | 901.1 | 1.61      | 420   | 0.074 | 6.40  | 1.07     | 420   | 0.049 | 6.40  | 3.22      | 420   | 0.15  | 6.40 | 0.80     | 420   | 0.037 | 6.40 |
|       | 10C   | 994.4 | 1.46      | 420   | 0.068 | 6.40  | 0.97     | 420   | 0.045 | 6.40  | 2.92      | 420   | 0.14  | 6.40 | 0.73     | 420   | 0.034 | 6.40 |
|       | 11C   | 1159  | 1.25      | 420   | 0.058 | 6.40  | 0.83     | 420   | 0.038 | 6.40  | 2.50      | 420   | 0.12  | 6.40 | 0.63     | 420   | 0.029 | 6.40 |
|       | 12C   | 1260  | 1.15      | 420   | 0.053 | 6.40  | 0.76     | 420   | 0.035 | 6.40  |           |       |       |      |          |       |       |      |

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

|       |      |       | n1 = 1450 |       |       |      | n1 = 960 |       |       |       | n1 = 2900 |       |       |      | n1 = 725 |       |       |       |
|-------|------|-------|-----------|-------|-------|------|----------|-------|-------|-------|-----------|-------|-------|------|----------|-------|-------|-------|
|       | in   | i     | n2        | M2    | Pm    | Fra  | n2       | M2    | Pm    | Fra   | n2        | M2    | Pm    | Fra  | n2       | M2    | Pm    | Fra   |
| F0523 | 6.3  | 6.312 | 229.74    | 450   | 11.10 | 1.48 | 152.10   | 476   | 7.78  | 2.01  | 459.47    | 447   | 22.06 | 1.50 | 114.87   | 496   | 6.12  | 2.42  |
|       | 9.0  | 8.874 | 163.40    | 472   | 8.28  | 1.91 | 108.18   | 499   | 5.80  | 2.51  | 326.80    | 440   | 15.44 | 1.18 | 81.70    | 519   | 4.55  | 2.99  |
|       | 10.  | 9.946 | 145.79    | 479   | 7.50  | 2.07 | 96.52    | 507   | 5.26  | 2.70  | 291.57    | 438   | 13.72 | 1.20 | 72.89    | 529   | 4.14  | 3.18  |
|       | 12.  | 11.16 | 129.88    | 487   | 6.79  | 2.24 | 85.99    | 515   | 4.76  | 2.90  | 259.76    | 442   | 12.33 | 1.34 | 64.94    | 538   | 3.75  | 3.40  |
|       | 14.  | 14.18 | 102.27    | 503   | 5.52  | 2.60 | 67.71    | 534   | 3.88  | 3.33  | 204.54    | 457   | 10.04 | 1.62 | 51.14    | 556   | 3.05  | 3.89  |
|       | 16.  | 16.07 | 90.22     | 512   | 4.96  | 2.80 | 59.73    | 544   | 3.49  | 3.57  | 180.43    | 465   | 9.01  | 1.78 | 45.11    | 566   | 2.74  | 4.17  |
|       | 20.  | 19.17 | 75.64     | 526   | 4.27  | 3.12 | 50.08    | 558   | 3.00  | 3.93  | 151.29    | 477   | 7.75  | 2.01 | 37.82    | 581   | 2.36  | 4.57  |
|       | 22.  | 22.07 | 65.70     | 537   | 3.79  | 3.38 | 43.50    | 569   | 2.66  | 4.25  | 131.39    | 486   | 6.86  | 2.22 | 32.85    | 593   | 2.09  | 4.92  |
|       | 25.  | 25.67 | 56.48     | 548   | 3.32  | 3.69 | 37.40    | 581   | 2.33  | 4.60  | 112.97    | 497   | 6.03  | 2.45 | 28.24    | 606   | 1.84  | 5.31  |
|       | 28.  | 28.72 | 50.49     | 557   | 3.02  | 3.92 | 33.42    | 592   | 2.13  | 4.87  | 100.97    | 504   | 5.47  | 2.62 | 25.24    | 616   | 1.67  | 5.61  |
|       | 32.  | 30.61 | 47.37     | 562   | 2.86  | 4.06 | 31.36    | 597   | 2.01  | 5.03  | 94.73     | 508   | 5.17  | 2.73 | 23.68    | 621   | 1.58  | 5.97  |
|       | 36.  | 36.28 | 39.97     | 576   | 2.47  | 4.44 | 26.46    | 612   | 1.74  | 5.48  | 79.94     | 521   | 4.47  | 3.02 | 19.98    | 637   | 1.37  | 6.29  |
|       | 40.  | 38.74 | 37.43     | 581   | 2.34  | 4.60 | 24.78    | 617   | 1.64  | 5.67  | 74.87     | 527   | 4.24  | 3.13 | 18.72    | 643   | 1.29  | 6.49  |
|       | 50.  | 48.07 | 30.17     | 600   | 1.94  | 5.14 | 19.97    | 637   | 1.37  | 6.29  | 60.33     | 543   | 3.52  | 3.55 | 15.08    | 663   | 1.07  | 7.19  |
|       | 56.  | 56.68 | 25.58     | 614   | 1.69  | 5.58 | 16.94    | 653   | 1.19  | 6.81  | 51.16     | 556   | 3.06  | 3.89 | 12.79    | 679   | 0.93  | 7.77  |
|       | 63.  | 62.06 | 23.36     | 622   | 1.56  | 5.83 | 15.47    | 661   | 1.10  | 7.11  | 46.73     | 563   | 2.83  | 4.09 | 11.68    | 689   | 0.86  | 8.10  |
|       | 71.  | 76.06 | 19.06     | 641   | 1.31  | 6.44 | 12.62    | 681   | 0.92  | 7.81  | 38.13     | 580   | 2.37  | 4.55 | 9.53     | 709   | 0.73  | 8.50  |
|       | 90.  | 84.78 | 17.10     | 633   | 1.16  | 6.97 | 11.32    | 633   | 0.77  | 8.51  | 34.21     | 590   | 2.17  | 4.81 | 8.55     | 633   | 0.58  | 8.83  |
|       | 100  | 95.08 | 15.25     | 481   | 0.79  | 8.62 | 10.10    | 481   | 0.52  | 9.00  | 30.50     | 474   | 1.55  | 5.50 | 7.63     | 481   | 0.39  | 9.00  |
| F0533 | 100  | 102.8 | 14.11     | 570   | 0.87  | 7.43 | 9.34     | 700   | 0.71  | 8.50  | 28.21     | 606   | 1.86  | 5.30 | 7.05     | 700   | 0.54  | 9.00  |
|       | 112  | 113.2 | 12.81     | 585   | 0.81  | 7.76 | 8.48     | 700   | 0.64  | 8.50  | 25.62     | 614   | 1.71  | 5.58 | 6.40     | 700   | 0.49  | 9.00  |
|       | 125  | 130.2 | 11.14     | 613   | 0.74  | 8.28 | 7.37     | 700   | 0.56  | 9.00  | 22.27     | 627   | 1.52  | 5.97 | 5.57     | 700   | 0.42  | 9.00  |
|       | 160  | 141.6 | 10.24     | 635   | 0.71  | 8.56 | 6.78     | 700   | 0.52  | 9.00  | 20.49     | 635   | 1.41  | 6.22 | 5.12     | 700   | 0.39  | 9.00  |
|       | 180  | 169.9 | 8.53      | 694   | 0.64  | 9.00 | 5.65     | 700   | 0.43  | 9.00  | 17.07     | 652   | 1.21  | 6.79 | 4.27     | 700   | 0.32  | 9.00  |
|       | 200  | 203.9 | 7.11      | 700   | 0.54  | 9.00 | 4.71     | 700   | 0.36  | 9.00  | 14.22     | 669   | 1.03  | 7.39 | 3.56     | 700   | 0.27  | 9.00  |
|       | 225  | 229.8 | 6.31      | 700   | 0.48  | 9.00 | 4.18     | 700   | 0.32  | 9.00  | 12.62     | 681   | 0.93  | 7.81 | 3.16     | 700   | 0.24  | 9.00  |
|       | 280  | 267.1 | 5.43      | 700   | 0.41  | 9.00 | 3.59     | 700   | 0.27  | 9.00  | 10.86     | 696   | 0.82  | 8.37 | 2.71     | 700   | 0.21  | 9.00  |
|       | 320  | 303.2 | 4.78      | 700   | 0.36  | 9.00 | 3.17     | 700   | 0.24  | 9.00  | 9.57      | 700   | 0.73  | 8.51 | 2.39     | 700   | 0.18  | 9.00  |
|       | 360  | 344.7 | 4.21      | 700   | 0.32  | 9.00 | 2.79     | 700   | 0.21  | 9.00  | 8.41      | 700   | 0.64  | 8.56 | 2.10     | 700   | 0.16  | 9.00  |
| F0543 | 400  | 409.9 | 3.54      | 700   | 0.27  | 9.00 | 2.34     | 700   | 0.18  | 9.00  | 7.07      | 700   | 0.55  | 9.00 | 1.77     | 700   | 0.14  | 9.00  |
|       | 450  | 451.4 | 3.21      | 700   | 0.25  | 9.00 | 2.13     | 700   | 0.16  | 9.00  | 6.42      | 700   | 0.50  | 9.00 | 1.61     | 700   | 0.12  | 9.00  |
|       | 500  | 505.0 | 2.87      | 700   | 0.22  | 9.00 | 1.90     | 700   | 0.15  | 9.00  | 5.74      | 700   | 0.44  | 9.00 | 1.44     | 700   | 0.11  | 9.00  |
|       | 560  | 564.5 | 2.57      | 700   | 0.20  | 9.00 | 1.70     | 700   | 0.13  | 9.00  | 5.14      | 700   | 0.40  | 9.00 | 1.28     | 700   | 0.099 | 9.00  |
|       | 630  | 631.5 | 2.30      | 700   | 0.18  | 9.00 | 1.52     | 700   | 0.12  | 9.00  | 4.59      | 700   | 0.35  | 9.00 | 1.15     | 700   | 0.089 | 9.00  |
|       | 710  | 699.2 | 2.07      | 700   | 0.16  | 9.00 | 1.37     | 700   | 0.11  | 9.00  | 4.15      | 700   | 0.32  | 9.00 | 1.04     | 700   | 0.080 | 9.00  |
|       | 800  | 808.1 | 1.79      | 700   | 0.14  | 9.00 | 1.19     | 700   | 0.092 | 9.00  | 3.59      | 700   | 0.28  | 9.00 | 0.90     | 700   | 0.069 | 9.00  |
|       | 900  | 909.8 | 1.59      | 700   | 0.12  | 9.00 | 1.06     | 700   | 0.081 | 9.00  | 3.19      | 700   | 0.25  | 9.00 | 0.80     | 700   | 0.061 | 9.00  |
|       | 10C  | 1025  | 1.41      | 700   | 0.11  | 9.00 | 0.94     | 700   | 0.072 | 9.00  | 2.83      | 700   | 0.22  | 9.00 | 0.71     | 700   | 0.055 | 9.00  |
|       | 11C  | 1149  | 1.26      | 700   | 0.097 | 9.00 | 0.84     | 700   | 0.064 | 9.00  | 2.52      | 700   | 0.19  | 9.00 | 0.63     | 700   | 0.049 | 9.00  |
|       | 12C  | 1270  | 1.14      | 700   | 0.088 | 9.00 | 0.76     | 700   | 0.058 | 9.00  | 2.28      | 700   | 0.18  | 9.00 | 0.57     | 700   | 0.044 | 9.00  |
|       | 14C  | 1442  | 1.01      | 700   | 0.078 | 9.00 | 0.67     | 700   | 0.051 | 9.00  | 2.01      | 700   | 0.16  | 9.00 | 0.50     | 700   | 0.039 | 9.00  |
|       | 16C  | 1607  | 0.90      | 700   | 0.070 | 9.00 | 0.60     | 700   | 0.046 | 9.00  | 1.80      | 700   | 0.14  | 9.00 | 0.45     | 700   | 0.035 | 9.00  |
|       | 18C  | 1824  | 0.79      | 700   | 0.061 | 9.00 | 0.53     | 700   | 0.041 | 9.00  | 1.59      | 700   | 0.12  | 9.00 | 0.40     | 700   | 0.031 | 9.00  |
|       | 20C  | 1994  | 0.73      | 700   | 0.056 | 9.00 | 0.48     | 700   | 0.037 | 9.00  | 1.45      | 700   | 0.11  | 9.00 | 0.36     | 700   | 0.028 | 9.00  |
|       | 22C  | 2264  | 0.64      | 700   | 0.049 | 9.00 | 0.42     | 700   | 0.033 | 9.00  | 1.28      | 700   | 0.099 | 9.00 | 0.32     | 700   | 0.025 | 9.00  |
|       | 25C  | 2573  | 0.56      | 700   | 0.043 | 9.00 | 0.37     | 700   | 0.029 | 9.00  | 1.13      | 700   | 0.087 | 9.00 | 0.28     | 700   | 0.022 | 9.00  |
|       | 28C  | 2923  | 0.50      | 700   | 0.038 | 9.00 | 0.33     | 700   | 0.025 | 9.00  | 0.99      | 700   | 0.077 | 9.00 | 0.25     | 700   | 0.019 | 9.00  |
|       | 32C  | 3323  | 0.44      | 700   | 0.034 | 9.00 | 0.29     | 700   | 0.022 | 9.00  | 0.87      | 700   | 0.067 | 9.00 | 0.22     | 700   | 0.017 | 9.00  |
|       | 36C  | 3582  | 0.40      | 700   | 0.031 | 9.00 | 0.27     | 700   | 0.021 | 9.00  | 0.81      | 700   | 0.062 | 9.00 | 0.20     | 700   | 0.016 | 9.00  |
| 40C   | 3992 | 0.36  | 665       | 0.027 | 9.00  | 0.24 | 665      | 0.018 | 9.00  | 0.73  | 665       | 0.053 | 9.00  | 0.18 | 665      | 0.013 | 9.00  |       |
| 45C   | 4539 | 0.32  | 665       | 0.023 | 9.00  | 0.21 | 665      | 0.016 | 9.00  | 0.64  | 665       | 0.047 | 9.00  | 0.16 | 665      | 0.012 | 9.00  |       |
| F0623 | 6.3  | 6.27  | 231.1     | 512   | 12.71 | 5.30 | 153.0    | 513   | 8.43  | 6.27  | 462.3     | 433   | 21.50 | 4.80 | 115.6    | 513   | 6.37  | 7.17  |
|       | 9.0  | 8.82  | 164.4     | 647   | 11.42 | 5.31 | 108.8    | 671   | 7.84  | 6.42  | 328.8     | 525   | 18.54 | 4.80 | 82.20    | 671   | 5.92  | 7.45  |
|       | 10.  | 9.89  | 146.7     | 687   | 10.82 | 5.32 | 97.11    | 723   | 7.54  | 6.50  | 293.3     | 558   | 17.58 | 4.80 | 73.34    | 723   | 5.69  | 7.57  |
|       | 12.  | 11.10 | 130.7     | 722   | 10.13 | 5.46 | 86.51    | 725   | 6.74  | 6.92  | 261.3     | 591   | 16.59 | 4.80 | 65.34    | 725   | 5.09  | 8.00  |
|       | 14.  | 14.09 | 102.9     | 816   | 9.02  | 5.72 | 68.12    | 893   | 6.53  | 6.83  | 205.8     | 663   | 14.65 | 4.80 | 51.45    | 893   | 4.93  | 8.05  |
|       | 16.  | 15.98 | 90.77     | 864   | 8.42  | 5.89 | 60.09    | 900   | 5.81  | 7.31  | 181.5     | 701   | 13.67 | 4.80 | 45.38    | 900   | 4.39  | 8.57  |
|       | 20.  | 19.05 | 76.11     | 900   | 7.36  | 6.34 | 50.39    | 900   | 4.87  | 8.09  | 152.2     | 744   | 12.16 | 4.90 | 38.05    | 900   | 3.68  | 9.43  |
|       | 22.  | 21.94 | 66.10     | 743   | 5.27  | 7.86 | 43.76    | 748   | 3.52  | 9.68  | 132.2     | 746   | 10.59 | 5.30 | 33.05    | 748   | 2.65  | 11.10 |
|       | 25.  | 25.52 | 56.83     | 839   | 5.12  | 7.90 | 37.62    | 845   | 3.41  | 9.82  | 113.7     | 808   | 9.86  | 5.40 | 28.41    | 845   | 2.58  | 11.30 |
|       | 28.  | 28.55 | 50.79     | 885   | 4.83  | 8.13 | 33.63    | 888   | 3.21  | 10.10 | 101.6     | 835   | 9.11  | 5.65 | 25.40    | 888   | 2.42  | 11.70 |
|       | 32.  | 30.43 | 47.66     | 900   | 4.61  | 8.35 | 31.55    | 900   | 3.05  | 10.40 | 95.31     | 852   | 8.72  | 5.80 | 23.83    | 900   | 2.30  | 12.00 |
|       | 36.  | 36.06 | 40.21     | 900   | 3.89  | 9.15 | 26.62    |       |       |       |           |       |       |      |          |       |       |       |

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

|       |     |       | n1 = 1450 |      |       |       | n1 = 960 |      |       |       | n1 = 2900 |      |       |       | n1 = 725 |      |       |       |
|-------|-----|-------|-----------|------|-------|-------|----------|------|-------|-------|-----------|------|-------|-------|----------|------|-------|-------|
|       | in  | i     | n2        | M2   | Pm    | Fra   | n2       | M2   | Pm    | Fra   | n2        | M2   | Pm    | Fra   | n2       | M2   | Pm    | Fra   |
| F0633 | 100 | 102.2 | 14.19     | 900  | 1.39  | 14.50 | 9.40     | 900  | 0.92  | 14.50 | 28.38     | 800  | 2.46  | 11.60 | 7.10     | 900  | 0.69  | 14.50 |
|       | 112 | 112.5 | 12.89     | 900  | 1.26  | 14.50 | 8.53     | 900  | 0.83  | 14.50 | 25.78     | 810  | 2.27  | 12.10 | 6.44     | 900  | 0.63  | 14.50 |
|       | 125 | 129.4 | 11.20     | 900  | 1.09  | 14.50 | 7.42     | 900  | 0.72  | 14.50 | 22.41     | 834  | 2.03  | 12.70 | 5.60     | 900  | 0.55  | 14.50 |
|       | 160 | 140.7 | 10.31     | 900  | 1.01  | 14.50 | 6.82     | 900  | 0.67  | 14.50 | 20.61     | 855  | 1.91  | 13.10 | 5.15     | 900  | 0.50  | 14.50 |
|       | 180 | 168.9 | 8.58      | 900  | 0.84  | 14.50 | 5.68     | 900  | 0.56  | 14.50 | 17.17     | 900  | 1.68  | 14.00 | 4.29     | 900  | 0.42  | 14.50 |
|       | 200 | 202.7 | 7.15      | 900  | 0.70  | 14.50 | 4.74     | 900  | 0.46  | 14.50 | 14.31     | 900  | 1.40  | 14.50 | 3.58     | 900  | 0.35  | 14.50 |
|       | 225 | 228.4 | 6.35      | 900  | 0.62  | 14.50 | 4.20     | 900  | 0.41  | 14.50 | 12.70     | 900  | 1.24  | 14.50 | 3.17     | 900  | 0.31  | 14.50 |
|       | 280 | 265.5 | 5.46      | 900  | 0.53  | 14.50 | 3.62     | 900  | 0.35  | 14.50 | 10.92     | 900  | 1.07  | 14.50 | 2.73     | 900  | 0.27  | 14.50 |
|       | 320 | 301.3 | 4.81      | 900  | 0.47  | 14.50 | 3.19     | 900  | 0.31  | 14.50 | 9.62      | 900  | 0.94  | 14.50 | 2.41     | 900  | 0.23  | 14.50 |
|       | 360 | 342.6 | 4.23      | 900  | 0.41  | 14.50 | 2.80     | 900  | 0.27  | 14.50 | 8.47      | 900  | 0.83  | 14.50 | 2.12     | 900  | 0.21  | 14.50 |
| F0643 | 400 | 407.4 | 3.56      | 900  | 0.35  | 14.50 | 2.36     | 900  | 0.23  | 14.50 | 7.12      | 900  | 0.71  | 14.50 | 1.78     | 900  | 0.18  | 14.50 |
|       | 450 | 448.6 | 3.23      | 900  | 0.32  | 14.50 | 2.14     | 900  | 0.21  | 14.50 | 6.46      | 900  | 0.64  | 14.50 | 1.62     | 900  | 0.16  | 14.50 |
|       | 500 | 502.0 | 2.89      | 900  | 0.29  | 14.50 | 1.91     | 900  | 0.19  | 14.50 | 5.78      | 900  | 0.57  | 14.50 | 1.44     | 900  | 0.14  | 14.50 |
|       | 560 | 561.0 | 2.58      | 900  | 0.26  | 14.50 | 1.71     | 900  | 0.17  | 14.50 | 5.17      | 900  | 0.51  | 14.50 | 1.29     | 900  | 0.13  | 14.50 |
|       | 630 | 627.7 | 2.31      | 900  | 0.23  | 14.50 | 1.53     | 900  | 0.15  | 14.50 | 4.62      | 900  | 0.46  | 14.50 | 1.15     | 900  | 0.11  | 14.50 |
|       | 710 | 729.3 | 1.99      | 900  | 0.20  | 14.50 | 1.32     | 900  | 0.13  | 14.50 | 3.98      | 900  | 0.39  | 14.50 | 0.99     | 900  | 0.099 | 14.50 |
|       | 800 | 803.2 | 1.81      | 900  | 0.18  | 14.50 | 1.20     | 900  | 0.12  | 14.50 | 3.61      | 900  | 0.36  | 14.50 | 0.90     | 900  | 0.090 | 14.50 |
|       | 900 | 904.3 | 1.60      | 900  | 0.16  | 14.50 | 1.06     | 900  | 0.11  | 14.50 | 3.21      | 900  | 0.32  | 14.50 | 0.80     | 900  | 0.080 | 14.50 |
|       | 10C | 1019  | 1.42      | 900  | 0.14  | 14.50 | 0.94     | 900  | 0.093 | 14.50 | 2.85      | 900  | 0.28  | 14.50 | 0.71     | 900  | 0.071 | 14.50 |
|       | 11C | 1086  | 1.34      | 900  | 0.13  | 14.50 | 0.88     | 900  | 0.088 | 14.50 | 2.67      | 900  | 0.26  | 14.50 | 0.67     | 900  | 0.066 | 14.50 |
|       | 12C | 1262  | 1.15      | 900  | 0.11  | 14.50 | 0.76     | 900  | 0.075 | 14.50 | 2.30      | 900  | 0.23  | 14.50 | 0.57     | 900  | 0.057 | 14.50 |
|       | 14C | 1433  | 1.01      | 900  | 0.10  | 14.50 | 0.67     | 900  | 0.066 | 14.50 | 2.02      | 900  | 0.20  | 14.50 | 0.51     | 900  | 0.050 | 14.50 |
|       | 16C | 1629  | 0.89      | 900  | 0.088 | 14.50 | 0.59     | 900  | 0.058 | 14.50 | 1.78      | 900  | 0.18  | 14.50 | 0.45     | 900  | 0.044 | 14.50 |
|       | 18C | 1813  | 0.80      | 900  | 0.079 | 14.50 | 0.53     | 900  | 0.053 | 14.50 | 1.60      | 900  | 0.16  | 14.50 | 0.40     | 900  | 0.040 | 14.50 |
|       | 20C | 1982  | 0.73      | 900  | 0.073 | 14.50 | 0.48     | 900  | 0.048 | 14.50 | 1.46      | 900  | 0.15  | 14.50 | 0.37     | 900  | 0.036 | 14.50 |
|       | 22C | 2250  | 0.64      | 900  | 0.064 | 14.50 | 0.43     | 900  | 0.042 | 14.50 | 1.29      | 900  | 0.13  | 14.50 | 0.32     | 900  | 0.032 | 14.50 |
|       | 25C | 2558  | 0.57      | 900  | 0.056 | 14.50 | 0.38     | 900  | 0.037 | 14.50 | 1.13      | 900  | 0.11  | 14.50 | 0.28     | 900  | 0.028 | 14.50 |
|       | 28C | 3016  | 0.48      | 900  | 0.048 | 14.50 | 0.32     | 900  | 0.032 | 14.50 | 0.96      | 900  | 0.095 | 14.50 | 0.24     | 900  | 0.024 | 14.50 |
|       | 32C | 3303  | 0.44      | 900  | 0.044 | 14.50 | 0.29     | 900  | 0.029 | 14.50 | 0.88      | 900  | 0.087 | 14.50 | 0.22     | 900  | 0.022 | 14.50 |
|       | 36C | 3560  | 0.41      | 870  | 0.039 | 14.50 | 0.27     | 870  | 0.026 | 14.50 | 0.81      | 870  | 0.078 | 14.50 | 0.20     | 870  | 0.020 | 14.50 |
|       | 40C | 4048  | 0.36      | 870  | 0.034 | 14.50 | 0.24     | 870  | 0.023 | 14.50 | 0.72      | 870  | 0.069 | 14.50 | 0.18     | 870  | 0.017 | 14.50 |
| F0723 | 6.3 | 6.42  | 225.84    | 1017 | 24.67 | 6.00  | 149.52   | 1150 | 18.47 | 6.44  | 451.68    | 868  | 42.11 | 5.60  | 112.92   | 1200 | 14.55 | 7.20  |
|       | 9.0 | 8.89  | 163.05    | 1199 | 20.99 | 6.00  | 107.95   | 1350 | 15.65 | 6.61  | 326.09    | 1030 | 36.07 | 5.60  | 81.52    | 1410 | 12.34 | 7.63  |
|       | 10. | 9.99  | 145.15    | 1270 | 19.80 | 6.00  | 96.10    | 1430 | 14.76 | 6.74  | 290.29    | 1090 | 33.98 | 5.60  | 72.57    | 1500 | 11.69 | 7.80  |
|       | 12. | 10.98 | 132.01    | 1340 | 19.00 | 6.00  | 87.40    | 1520 | 14.27 | 6.77  | 264.01    | 1150 | 32.61 | 5.60  | 66.00    | 1580 | 11.20 | 7.85  |
|       | 14. | 14.35 | 101.07    | 1485 | 16.12 | 6.25  | 66.91    | 1680 | 12.07 | 7.31  | 202.13    | 1270 | 27.57 | 5.60  | 50.53    | 1700 | 9.23  | 9.50  |
|       | 16. | 16.31 | 88.89     | 1490 | 14.22 | 6.50  | 58.85    | 1700 | 10.74 | 7.89  | 177.78    | 1330 | 25.39 | 5.60  | 44.45    | 1700 | 8.11  | 12.00 |
|       | 20. | 19.81 | 73.20     | 1428 | 11.22 | 8.03  | 48.47    | 1440 | 7.50  | 10.30 | 146.41    | 1440 | 22.64 | 5.86  | 36.60    | 1440 | 5.66  | 12.30 |
|       | 22. | 21.79 | 66.55     | 1488 | 10.63 | 8.23  | 44.06    | 1500 | 7.10  | 10.60 | 133.10    | 1480 | 21.16 | 6.08  | 33.27    | 1500 | 5.36  | 12.70 |
|       | 25. | 25.04 | 57.91     | 1615 | 10.04 | 8.34  | 38.34    | 1630 | 6.71  | 10.80 | 115.83    | 1520 | 18.91 | 6.51  | 28.96    | 1630 | 5.07  | 13.20 |
|       | 28. | 28.39 | 51.07     | 1700 | 9.32  | 8.69  | 33.81    | 1700 | 6.17  | 11.20 | 102.14    | 1600 | 17.55 | 6.74  | 25.54    | 1700 | 4.66  | 13.90 |
|       | 32. | 31.32 | 46.30     | 1700 | 8.45  | 9.26  | 30.66    | 1700 | 5.60  | 11.90 | 92.61     | 1600 | 15.91 | 7.19  | 23.15    | 1700 | 4.23  | 15.00 |
|       | 36. | 35.86 | 40.43     | 1700 | 7.38  | 10.10 | 26.77    | 1700 | 4.89  | 12.80 | 80.86     | 1670 | 14.50 | 7.58  | 20.22    | 1700 | 3.69  | 15.90 |
|       | 40. | 40.55 | 35.76     | 1700 | 6.53  | 10.90 | 23.68    | 1700 | 4.32  | 13.70 | 71.52     | 1690 | 12.98 | 8.18  | 17.88    | 1700 | 3.26  | 16.00 |
|       | 50. | 47.01 | 30.84     | 1700 | 5.63  | 11.90 | 20.42    | 1700 | 3.73  | 14.90 | 61.69     | 1700 | 11.26 | 8.94  | 15.42    | 1700 | 2.82  | 16.00 |
|       | 56. | 56.07 | 25.86     | 1700 | 4.72  | 13.10 | 17.12    | 1700 | 3.13  | 16.00 | 51.72     | 1700 | 9.44  | 10.00 | 12.93    | 1700 | 2.36  | 16.00 |
|       | 63. | 61.40 | 23.61     | 1700 | 4.31  | 13.80 | 15.63    | 1700 | 2.85  | 16.00 | 47.23     | 1700 | 8.62  | 10.60 | 11.81    | 1700 | 2.16  | 16.00 |
|       | 71. | 73.68 | 19.68     | 1556 | 3.29  | 16.00 | 13.03    | 1560 | 2.18  | 16.00 | 39.36     | 1560 | 6.59  | 13.30 | 9.84     | 1560 | 1.65  | 16.00 |
|       | 90. | 84.78 | 17.10     | 1222 | 2.24  | 16.00 | 11.32    | 1220 | 1.48  | 16.00 | 34.21     | 1220 | 4.48  | 15.50 | 8.55     | 1220 | 1.12  | 16.00 |
|       | 100 | 94.20 | 15.39     | 1042 | 1.72  | 16.00 | 10.19    | 1040 | 1.14  | 16.00 | 30.79     | 1040 | 3.44  | 16.00 | 7.70     | 1040 | 0.86  | 16.00 |
| F0733 | 80. | 78.99 | 18.36     | 1390 | 2.77  | 16.00 | 12.15    | 1510 | 1.99  | 16.00 | 36.71     | 1260 | 5.02  | 14.50 | 9.18     | 1620 | 1.61  | 16.00 |
|       | 90. | 91.87 | 15.78     | 1460 | 2.50  | 16.00 | 10.45    | 1590 | 1.80  | 16.00 | 31.56     | 1320 | 4.52  | 15.30 | 7.89     | 1700 | 1.46  | 16.00 |
|       | 100 | 102.8 | 14.11     | 1560 | 2.39  | 16.00 | 9.34     | 1700 | 1.72  | 16.00 | 28.21     | 1410 | 4.32  | 15.60 | 7.05     | 1700 | 1.30  | 16.00 |
|       | 112 | 109.6 | 13.23     | 1560 | 2.24  | 16.00 | 8.76     | 1700 | 1.62  | 16.00 | 26.47     | 1410 | 4.05  | 16.00 | 6.62     | 1700 | 1.22  | 16.00 |
|       | 125 | 129.8 | 11.17     | 1620 | 1.96  | 16.00 | 7.39     | 1700 | 1.36  | 16.00 | 22.33     | 1470 | 3.56  | 16.00 | 5.58     | 1700 | 1.03  | 16.00 |
|       | 160 | 138.6 | 10.46     | 1650 | 1.87  | 16.00 | 6.92     | 1700 | 1.28  | 16.00 | 20.92     | 1500 | 3.40  | 16.00 | 5.23     | 1700 | 0.96  | 16.00 |
|       | 180 | 172.0 | 8.43      | 1700 | 1.55  | 16.00 | 5.58     | 1700 | 1.03  | 16.00 | 16.86     | 1600 | 2.93  | 16.00 | 4.21     | 1700 | 0.78  | 16.00 |
|       | 200 | 202.9 | 7.15      | 1700 | 1.32  | 16.00 | 4.73     | 1700 | 0.873 | 16.00 | 14.30     | 1670 | 2.59  | 16.00 | 3.57     | 1700 | 0.66  | 16.00 |
|       | 225 | 222.1 | 6.53      | 1700 | 1.20  | 16.00 | 4.32     | 1700 | 0.797 | 16.00 | 13.06     | 1700 | 2.41  | 16.00 | 3.26     | 1700 | 0.60  | 16.00 |
|       | 280 | 272.2 | 5.33      | 1700 | 0.983 | 16.00 | 3.53     | 1700 | 0.651 | 16.00 | 10.65     | 1700 | 1.97  | 16.00 | 2.66     | 1700 | 0.49  | 16.00 |
|       | 320 | 303.4 | 4.78      | 1700 | 0.882 | 16.00 | 3.16     | 1700 | 0.584 | 16.00 | 9.56      | 1700 | 1.76  | 16.00 | 2.39     | 1700 | 0.44  | 16.00 |
|       | 360 | 340.3 | 4.26      | 1700 | 0.786 | 16.00 | 2.82     | 1700 | 0.520 | 16.00 | 8.52      | 1700 | 1.57  | 16.00 | 2.13     | 1700 | 0.39  | 16.00 |

**Note:** Input power Pm may exceed thermal power rating

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

|       |     |       | n1 = 1450 |      |       |       | n1 = 960 |      |       |       | n1 = 2900 |      |       |       | n1 = 725 |      |       |       |
|-------|-----|-------|-----------|------|-------|-------|----------|------|-------|-------|-----------|------|-------|-------|----------|------|-------|-------|
|       | in  | i     | n2        | M2   | Pm    | Fra   | n2       | M2   | Pm    | Fra   | n2        | M2   | Pm    | Fra   | n2       | M2   | Pm    | Fra   |
| F0743 | 400 | 399.8 | 3.63      | 1700 | 0.680 | 16.00 | 2.40     | 1700 | 0.450 | 16.00 | 7.25      | 1700 | 1.36  | 16.00 | 1.81     | 1700 | 0.34  | 16.00 |
|       | 450 | 453.3 | 3.20      | 1700 | 0.599 | 16.00 | 2.12     | 1700 | 0.397 | 16.00 | 6.40      | 1700 | 1.20  | 16.00 | 1.60     | 1700 | 0.30  | 16.00 |
|       | 500 | 499.2 | 2.90      | 1700 | 0.544 | 16.00 | 1.92     | 1700 | 0.360 | 16.00 | 5.81      | 1700 | 1.09  | 16.00 | 1.45     | 1700 | 0.27  | 16.00 |
|       | 560 | 550.5 | 2.63      | 1700 | 0.494 | 16.00 | 1.74     | 1700 | 0.327 | 16.00 | 5.27      | 1700 | 0.987 | 16.00 | 1.32     | 1700 | 0.25  | 16.00 |
|       | 630 | 624.3 | 2.32      | 1700 | 0.435 | 16.00 | 1.54     | 1700 | 0.288 | 16.00 | 4.65      | 1700 | 0.870 | 16.00 | 1.16     | 1700 | 0.22  | 16.00 |
|       | 710 | 713.0 | 2.03      | 1700 | 0.381 | 16.00 | 1.35     | 1700 | 0.252 | 16.00 | 4.07      | 1700 | 0.762 | 16.00 | 1.02     | 1700 | 0.19  | 16.00 |
|       | 800 | 793.1 | 1.83      | 1700 | 0.343 | 16.00 | 1.21     | 1700 | 0.227 | 16.00 | 3.66      | 1700 | 0.685 | 16.00 | 0.91     | 1700 | 0.17  | 16.00 |
|       | 900 | 899.3 | 1.61      | 1700 | 0.302 | 16.00 | 1.07     | 1700 | 0.200 | 16.00 | 3.22      | 1700 | 0.604 | 16.00 | 0.81     | 1700 | 0.15  | 16.00 |
|       | 10C | 992.0 | 1.46      | 1700 | 0.274 | 16.00 | 0.97     | 1700 | 0.181 | 16.00 | 2.92      | 1700 | 0.548 | 16.00 | 0.73     | 1700 | 0.14  | 16.00 |
|       | 11C | 1118  | 1.30      | 1700 | 0.243 | 16.00 | 0.86     | 1700 | 0.161 | 16.00 | 2.59      | 1700 | 0.486 | 16.00 | 0.65     | 1700 | 0.12  | 16.00 |
|       | 12C | 1280  | 1.13      | 1700 | 0.212 | 16.00 | 0.75     | 1700 | 0.141 | 16.00 | 2.27      | 1700 | 0.425 | 16.00 | 0.57     | 1700 | 0.11  | 16.00 |
|       | 14C | 1447  | 1.00      | 1700 | 0.188 | 16.00 | 0.66     | 1700 | 0.124 | 16.00 | 2.00      | 1700 | 0.375 | 16.00 | 0.50     | 1700 | 0.094 | 16.00 |
|       | 16C | 1678  | 0.86      | 1700 | 0.162 | 16.00 | 0.57     | 1700 | 0.107 | 16.00 | 1.73      | 1700 | 0.324 | 16.00 | 0.43     | 1700 | 0.081 | 16.00 |
|       | 18C | 1776  | 0.82      | 1700 | 0.153 | 16.00 | 0.54     | 1700 | 0.101 | 16.00 | 1.63      | 1700 | 0.306 | 16.00 | 0.41     | 1700 | 0.076 | 16.00 |
|       | 20C | 2001  | 0.72      | 1700 | 0.136 | 16.00 | 0.48     | 1700 | 0.090 | 16.00 | 1.45      | 1700 | 0.272 | 16.00 | 0.36     | 1700 | 0.068 | 16.00 |
|       | 22C | 2214  | 0.65      | 1700 | 0.123 | 16.00 | 0.43     | 1700 | 0.081 | 16.00 | 1.31      | 1700 | 0.245 | 16.00 | 0.33     | 1700 | 0.061 | 16.00 |
|       | 25C | 2517  | 0.58      | 1700 | 0.108 | 16.00 | 0.38     | 1700 | 0.071 | 16.00 | 1.15      | 1700 | 0.216 | 16.00 | 0.29     | 1700 | 0.054 | 16.00 |
|       | 28C | 2892  | 0.50      | 1700 | 0.094 | 16.00 | 0.33     | 1700 | 0.062 | 16.00 | 1.00      | 1700 | 0.188 | 16.00 | 0.25     | 1700 | 0.047 | 16.00 |
|       | 32C | 3002  | 0.48      | 1700 | 0.091 | 16.00 | 0.32     | 1700 | 0.060 | 16.00 | 0.97      | 1700 | 0.181 | 16.00 | 0.24     | 1700 | 0.045 | 16.00 |
|       | 36C | 3470  | 0.42      | 1415 | 0.065 | 16.00 | 0.28     | 1415 | 0.043 | 16.00 | 0.84      | 1415 | 0.130 | 16.00 | 0.21     | 1415 | 0.033 | 16.00 |
|       | 40C | 3945  | 0.37      | 1415 | 0.057 | 16.00 | 0.24     | 1415 | 0.038 | 16.00 | 0.74      | 1415 | 0.115 | 16.00 | 0.18     | 1415 | 0.029 | 16.00 |
|       | 45C | 4539  | 0.32      | 1160 | 0.041 | 16.00 | 0.21     | 1160 | 0.027 | 16.00 | 0.64      | 1160 | 0.082 | 16.00 | 0.16     | 1160 | 0.020 | 16.00 |
|       | 50C | 5043  | 0.29      | 1160 | 0.037 | 16.00 | 0.19     | 1160 | 0.024 | 16.00 | 0.58      | 1160 | 0.074 | 16.00 | 0.14     | 1160 | 0.018 | 16.00 |
| F0823 | 6.3 | 6.24  | 232.29    | 1540 | 38.42 | 5.50  | 153.79   | 1760 | 29.07 | 6.20  | 464.58    | 1310 | 65.36 | 5.30  | 116.15   | 1840 | 22.95 | 7.30  |
|       | 9.0 | 8.85  | 163.86    | 1860 | 32.73 | 5.55  | 108.49   | 2130 | 24.82 | 6.20  | 327.73    | 1590 | 55.96 | 5.30  | 81.93    | 2220 | 19.53 | 7.30  |
|       | 10. | 9.83  | 147.51    | 1960 | 31.06 | 5.60  | 97.66    | 2240 | 23.49 | 6.25  | 295.01    | 1680 | 53.23 | 5.30  | 73.75    | 2340 | 18.53 | 7.40  |
|       | 12. | 10.93 | 132.61    | 2060 | 29.33 | 5.60  | 87.80    | 2350 | 22.16 | 6.33  | 265.23    | 1760 | 50.13 | 5.30  | 66.31    | 2460 | 17.52 | 7.50  |
|       | 14. | 14.14 | 102.56    | 2290 | 25.23 | 5.70  | 67.90    | 2620 | 19.11 | 6.66  | 205.12    | 1960 | 43.18 | 5.30  | 51.28    | 2730 | 15.03 | 7.94  |
|       | 16. | 15.87 | 91.35     | 2390 | 23.45 | 5.95  | 60.48    | 2730 | 17.73 | 6.87  | 182.70    | 2050 | 40.22 | 5.30  | 45.68    | 2850 | 13.98 | 8.23  |
|       | 20. | 19.46 | 74.49     | 2560 | 20.48 | 6.37  | 49.32    | 2820 | 14.94 | 7.82  | 148.99    | 2190 | 35.04 | 5.48  | 37.25    | 2920 | 11.68 | 9.38  |
|       | 22. | 21.93 | 66.11     | 2620 | 18.60 | 6.80  | 43.77    | 2870 | 13.49 | 8.45  | 132.22    | 2250 | 31.95 | 5.85  | 33.05    | 2960 | 10.51 | 10.10 |
|       | 25. | 25.53 | 56.79     | 2760 | 16.83 | 7.15  | 37.60    | 2920 | 11.79 | 9.33  | 113.59    | 2360 | 28.79 | 6.15  | 28.40    | 3020 | 9.21  | 11.00 |
|       | 28. | 28.32 | 51.20     | 2410 | 13.25 | 9.38  | 33.90    | 2410 | 8.77  | 12.30 | 102.40    | 2410 | 26.50 | 6.53  | 25.60    | 2410 | 6.63  | 14.60 |
|       | 32. | 30.99 | 46.79     | 2310 | 11.61 | 10.40 | 30.97    | 2310 | 7.68  | 13.50 | 93.57     | 2310 | 23.21 | 7.50  | 23.39    | 2310 | 5.80  | 15.80 |
|       | 36. | 35.06 | 41.35     | 2480 | 11.01 | 10.60 | 27.38    | 2480 | 7.29  | 13.80 | 82.71     | 2480 | 22.03 | 7.51  | 20.68    | 2480 | 5.51  | 16.20 |
|       | 40. | 39.58 | 36.64     | 2600 | 10.23 | 10.90 | 24.26    | 2610 | 6.80  | 14.20 | 73.27     | 2590 | 20.38 | 7.74  | 18.32    | 2610 | 5.13  | 16.70 |
|       | 50. | 47.98 | 30.22     | 2830 | 9.18  | 11.40 | 20.01    | 2830 | 6.08  | 14.90 | 60.44     | 2650 | 17.20 | 8.76  | 15.11    | 2830 | 4.59  | 17.60 |
|       | 56. | 55.95 | 25.91     | 3030 | 8.43  | 11.80 | 17.16    | 3030 | 5.58  | 15.50 | 51.83     | 2710 | 15.08 | 9.59  | 12.96    | 3030 | 4.22  | 18.00 |
|       | 63. | 61.46 | 23.59     | 3050 | 7.73  | 12.30 | 15.62    | 3050 | 5.12  | 15.90 | 47.18     | 2770 | 14.04 | 10.00 | 11.80    | 3050 | 3.86  | 18.00 |
|       | 71. | 75.32 | 19.25     | 3050 | 6.31  | 13.80 | 12.75    | 3050 | 4.17  | 17.10 | 38.50     | 2830 | 11.70 | 11.30 | 9.63     | 3050 | 3.15  | 18.00 |
|       | 90. | 82.25 | 17.63     | 2950 | 5.58  | 15.60 | 11.67    | 2950 | 3.70  | 18.00 | 35.26     | 2950 | 11.17 | 11.90 | 8.81     | 2950 | 2.79  | 18.00 |
|       | 100 | 94.71 | 15.31     | 2630 | 4.32  | 18.00 | 10.14    | 2630 | 2.86  | 18.00 | 30.62     | 2630 | 8.65  | 15.20 | 7.65     | 2630 | 2.16  | 18.00 |
| F0833 | 100 | 102.4 | 14.16     | 3050 | 4.69  | 17.30 | 9.38     | 3050 | 3.10  | 18.00 | 28.32     | 3020 | 9.28  | 11.10 | 7.08     | 3050 | 2.34  | 18.00 |
|       | 112 | 112.1 | 12.94     | 3050 | 4.28  | 18.00 | 8.57     | 3050 | 2.84  | 18.00 | 25.88     | 3050 | 8.57  | 11.70 | 6.47     | 3050 | 2.14  | 18.00 |
|       | 125 | 126.8 | 11.44     | 3050 | 3.79  | 18.00 | 7.57     | 3050 | 2.51  | 18.00 | 22.88     | 3050 | 7.57  | 12.80 | 5.72     | 3050 | 1.89  | 18.00 |
|       | 160 | 143.1 | 10.13     | 3050 | 3.35  | 18.00 | 6.71     | 3050 | 2.22  | 18.00 | 20.27     | 3050 | 6.71  | 13.80 | 5.07     | 3050 | 1.68  | 18.00 |
|       | 180 | 173.5 | 8.36      | 3050 | 2.77  | 18.00 | 5.53     | 3050 | 1.83  | 18.00 | 16.72     | 3050 | 5.53  | 15.70 | 4.18     | 3050 | 1.38  | 18.00 |
|       | 200 | 202.3 | 7.17      | 3050 | 2.37  | 18.00 | 4.75     | 3050 | 1.57  | 18.00 | 14.34     | 3050 | 4.74  | 17.20 | 3.58     | 3050 | 1.19  | 18.00 |
|       | 225 | 222.2 | 6.53      | 3050 | 2.16  | 18.00 | 4.32     | 3050 | 1.43  | 18.00 | 13.05     | 3050 | 4.32  | 18.00 | 3.26     | 3050 | 1.08  | 18.00 |
|       | 280 | 272.3 | 5.32      | 3050 | 1.76  | 18.00 | 3.53     | 3050 | 1.17  | 18.00 | 10.65     | 3050 | 3.52  | 18.00 | 2.66     | 3050 | 0.881 | 18.00 |
|       | 320 | 297.4 | 4.88      | 3050 | 1.61  | 18.00 | 3.23     | 3050 | 1.07  | 18.00 | 9.75      | 3050 | 3.23  | 18.00 | 2.44     | 3050 | 0.807 | 18.00 |
|       | 360 | 342.4 | 4.23      | 3040 | 1.40  | 18.00 | 2.80     | 3050 | 0.928 | 18.00 | 8.47      | 3050 | 2.80  | 18.00 | 2.12     | 3050 | 0.701 | 18.00 |
| F0843 | 400 | 388.5 | 3.73      | 3050 | 1.25  | 18.00 | 2.47     | 3050 | 0.831 | 18.00 | 7.46      | 3050 | 2.51  | 18.00 | 1.87     | 3050 | 0.627 | 18.00 |
|       | 450 | 439.5 | 3.30      | 3050 | 1.11  | 18.00 | 2.18     | 3050 | 0.734 | 18.00 | 6.60      | 3050 | 2.22  | 18.00 | 1.65     | 3050 | 0.555 | 18.00 |
|       | 500 | 496.2 | 2.92      | 3050 | 0.982 | 18.00 | 1.93     | 3050 | 0.650 | 18.00 | 5.85      | 3050 | 1.96  | 18.00 | 1.46     | 3050 | 0.491 | 18.00 |
|       | 560 | 577.1 | 2.51      | 3050 | 0.845 | 18.00 | 1.66     | 3050 | 0.559 | 18.00 | 5.03      | 3050 | 1.69  | 18.00 | 1.26     | 3050 | 0.422 | 18.00 |
|       | 630 | 601.5 | 2.41      | 3050 | 0.810 | 18.00 | 1.60     | 3050 | 0.537 | 18.00 | 4.82      | 3050 | 1.62  | 18.00 | 1.21     | 3050 | 0.405 | 18.00 |
|       | 710 | 701.4 | 2.07      | 3050 | 0.695 | 18.00 | 1.37     | 3050 | 0.460 | 18.00 | 4.13      | 3050 | 1.39  | 18.00 | 1.03     | 3050 | 0.347 | 18.00 |
|       | 800 | 815.8 | 1.78      | 3050 | 0.598 | 18.00 | 1.18     | 3050 | 0.396 | 18.00 | 3.55      | 3050 | 1.20  | 18.00 | 0.89     | 3050 | 0.299 | 18.00 |
|       | 900 | 912.7 | 1.59      | 3050 | 0.534 | 18.00 | 1.0      |      |       |       |           |      |       |       |          |      |       |       |

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

|       |      |       | n1 = 1450 |       |       |       | n1 = 960 |       |       |       | n1 = 2900 |       |       |       | n1 = 725 |      |       |       |
|-------|------|-------|-----------|-------|-------|-------|----------|-------|-------|-------|-----------|-------|-------|-------|----------|------|-------|-------|
|       | in   | i     | n2        | M2    | Pm    | Fra   | n2       | M2    | Pm    | Fra   | n2        | M2    | Pm    | Fra   | n2       | M2   | Pm    | Fra   |
| F0923 | 6.3  | 6.57  | 220.81    | 2940  | 69.72 | 24.50 | 146.19   | 3290  | 51.66 | 26.20 | 441.63    | 2330  | 110.5 | 20.50 | 110.41   | 3290 | 39.01 | 28.90 |
|       | 9.0  | 9.04  | 160.40    | 3459  | 59.59 | 24.80 | 106.19   | 3980  | 45.39 | 27.00 | 320.80    | 2740  | 94.40 | 20.50 | 80.20    | 4260 | 36.69 | 29.60 |
|       | 10.  | 10.13 | 143.11    | 3657  | 56.21 | 24.80 | 94.75    | 4210  | 42.84 | 27.60 | 286.22    | 2900  | 89.14 | 20.50 | 71.55    | 4310 | 33.12 | 31.00 |
|       | 12.  | 11.37 | 127.49    | 3870  | 52.99 | 25.20 | 84.41    | 4310  | 39.07 | 28.70 | 254.98    | 3060  | 83.80 | 20.50 | 63.75    | 4310 | 29.51 | 32.60 |
|       | 14.  | 14.66 | 98.94     | 4345  | 46.16 | 26.70 | 65.50    | 4310  | 30.32 | 32.20 | 197.87    | 3440  | 73.10 | 21.90 | 49.47    | 4310 | 22.90 | 35.00 |
|       | 16.  | 16.37 | 88.56     | 4393  | 41.78 | 28.10 | 58.63    | 4310  | 27.14 | 33.80 | 177.12    | 3550  | 67.53 | 22.70 | 44.28    | 4310 | 20.50 | 35.00 |
|       | 20.  | 20.45 | 70.91     | 4500  | 34.27 | 31.10 | 46.95    | 4310  | 21.73 | 35.00 | 141.83    | 3820  | 58.18 | 24.10 | 35.46    | 4310 | 16.41 | 35.00 |
|       | 22.  | 22.70 | 63.87     | 4500  | 30.87 | 32.60 | 42.29    | 4310  | 19.57 | 35.00 | 127.75    | 3970  | 54.47 | 24.80 | 31.94    | 4310 | 14.78 | 35.00 |
|       | 25.  | 25.88 | 56.02     | 4500  | 27.07 | 34.50 | 37.09    | 4310  | 17.17 | 35.00 | 112.04    | 4120  | 49.57 | 25.80 | 28.01    | 4310 | 12.96 | 35.00 |
|       | 28.  | 29.11 | 49.80     | 4500  | 24.07 | 35.00 | 32.97    | 4310  | 15.26 | 35.00 | 99.61     | 4310  | 46.11 | 26.60 | 24.90    | 4310 | 11.53 | 35.00 |
|       | 32.  | 32.96 | 43.99     | 4500  | 21.26 | 35.00 | 29.13    | 4310  | 13.48 | 35.00 | 87.99     | 4310  | 40.73 | 28.20 | 22.00    | 4310 | 10.18 | 35.00 |
|       | 36.  | 36.69 | 39.52     | 4500  | 19.10 | 35.00 | 26.17    | 4310  | 12.11 | 35.00 | 79.04     | 4310  | 36.59 | 29.60 | 19.76    | 4310 | 9.15  | 35.00 |
|       | 40.  | 40.76 | 35.57     | 4500  | 17.19 | 35.00 | 23.55    | 4310  | 10.90 | 35.00 | 71.15     | 4310  | 32.93 | 31.10 | 17.79    | 4310 | 8.23  | 35.00 |
|       | 50.  | 49.85 | 29.09     | 4500  | 14.06 | 35.00 | 19.26    | 4310  | 8.91  | 35.00 | 58.17     | 4310  | 26.93 | 33.90 | 14.54    | 4310 | 6.73  | 35.00 |
|       | 56.  | 57.58 | 25.18     | 4500  | 12.17 | 35.00 | 16.67    | 4310  | 7.72  | 35.00 | 50.37     | 4310  | 23.31 | 35.00 | 12.59    | 4310 | 5.83  | 35.00 |
|       | 63.  | 63.56 | 22.81     | 4500  | 11.02 | 35.00 | 15.10    | 4310  | 6.99  | 35.00 | 45.62     | 4310  | 21.12 | 35.00 | 11.41    | 4310 | 5.28  | 35.00 |
|       | 71.  | 77.26 | 18.77     | 4500  | 9.07  | 35.00 | 12.43    | 4310  | 5.75  | 35.00 | 37.54     | 4310  | 17.38 | 35.00 | 9.38     | 4310 | 4.34  | 35.00 |
|       | 90.  | 87.44 | 16.58     | 4500  | 8.01  | 35.00 | 10.98    | 4310  | 5.08  | 35.00 | 33.17     | 4310  | 15.35 | 35.00 | 8.29     | 4310 | 3.84  | 35.00 |
|       | 100  | 98.32 | 14.75     | 4500  | 7.13  | 35.00 | 9.76     | 4310  | 4.52  | 35.00 | 29.49     | 4310  | 13.65 | 35.00 | 7.37     | 4310 | 3.41  | 35.00 |
| F0933 | 100  | 105.3 | 13.78     | 4500  | 6.73  | 35.00 | 9.12     | 4310  | 4.27  | 35.00 | 27.55     | 4310  | 12.88 | 35.00 | 6.89     | 4310 | 3.22  | 35.00 |
|       | 112  | 115.2 | 12.59     | 4500  | 6.15  | 35.00 | 8.33     | 4310  | 3.90  | 35.00 | 25.18     | 4310  | 11.77 | 35.00 | 6.29     | 4310 | 2.94  | 35.00 |
|       | 125  | 130.3 | 11.13     | 4500  | 5.43  | 35.00 | 7.37     | 4310  | 3.45  | 35.00 | 22.25     | 4310  | 10.41 | 35.00 | 5.56     | 4310 | 2.60  | 35.00 |
|       | 160  | 147.1 | 9.86      | 4500  | 4.81  | 35.00 | 6.53     | 4310  | 3.05  | 35.00 | 19.71     | 4310  | 9.22  | 35.00 | 4.93     | 4310 | 2.30  | 35.00 |
|       | 180  | 178.3 | 8.13      | 4500  | 3.97  | 35.00 | 5.38     | 4310  | 2.52  | 35.00 | 16.26     | 4310  | 7.61  | 35.00 | 4.07     | 4310 | 1.90  | 35.00 |
|       | 200  | 208.0 | 6.97      | 4500  | 3.40  | 35.00 | 4.62     | 4310  | 2.16  | 35.00 | 13.94     | 4310  | 6.52  | 35.00 | 3.49     | 4310 | 1.63  | 35.00 |
|       | 225  | 228.4 | 6.35      | 4500  | 3.10  | 35.00 | 4.20     | 4310  | 1.97  | 35.00 | 12.69     | 4310  | 5.94  | 35.00 | 3.17     | 4310 | 1.48  | 35.00 |
|       | 280  | 279.9 | 5.18      | 4500  | 2.53  | 35.00 | 3.43     | 4310  | 1.60  | 35.00 | 10.36     | 4310  | 4.84  | 35.00 | 2.59     | 4310 | 1.21  | 35.00 |
|       | 320  | 305.7 | 4.74      | 4500  | 2.32  | 35.00 | 3.14     | 4310  | 1.47  | 35.00 | 9.49      | 4310  | 4.44  | 35.00 | 2.37     | 4310 | 1.11  | 35.00 |
|       | 360  | 352.0 | 4.12      | 4500  | 2.01  | 35.00 | 2.73     | 4310  | 1.28  | 35.00 | 8.24      | 4310  | 3.85  | 35.00 | 2.06     | 4310 | 0.963 | 35.00 |
| F0943 | 400  | 413.2 | 3.51      | 4500  | 1.74  | 35.00 | 2.32     | 4310  | 1.10  | 35.00 | 7.02      | 4310  | 3.33  | 35.00 | 1.75     | 4310 | 0.834 | 35.00 |
|       | 450  | 459.9 | 3.15      | 4500  | 1.56  | 35.00 | 2.09     | 4310  | 0.99  | 35.00 | 6.31      | 4310  | 3.00  | 35.00 | 1.58     | 4310 | 0.749 | 35.00 |
|       | 500  | 511.0 | 2.84      | 4500  | 1.41  | 35.00 | 1.88     | 4310  | 0.893 | 35.00 | 5.68      | 4310  | 2.70  | 35.00 | 1.42     | 4310 | 0.674 | 35.00 |
|       | 560  | 573.0 | 2.53      | 4500  | 1.26  | 35.00 | 1.68     | 4310  | 0.796 | 35.00 | 5.06      | 4310  | 2.40  | 35.00 | 1.27     | 4310 | 0.601 | 35.00 |
|       | 630  | 637.9 | 2.27      | 4500  | 1.13  | 35.00 | 1.50     | 4310  | 0.715 | 35.00 | 4.55      | 4310  | 2.16  | 35.00 | 1.14     | 4310 | 0.540 | 35.00 |
|       | 710  | 708.7 | 2.05      | 4500  | 1.015 | 35.00 | 1.35     | 4310  | 0.644 | 35.00 | 4.09      | 4310  | 1.94  | 35.00 | 1.02     | 4310 | 0.486 | 35.00 |
|       | 800  | 807.1 | 1.80      | 4500  | 0.891 | 35.00 | 1.19     | 4310  | 0.565 | 35.00 | 3.59      | 4310  | 1.71  | 35.00 | 0.90     | 4310 | 0.427 | 35.00 |
|       | 900  | 896.7 | 1.62      | 4500  | 0.802 | 35.00 | 1.07     | 4310  | 0.509 | 35.00 | 3.23      | 4310  | 1.54  | 35.00 | 0.81     | 4310 | 0.384 | 35.00 |
|       | 10C  | 1002  | 1.45      | 4500  | 0.718 | 35.00 | 0.96     | 4310  | 0.455 | 35.00 | 2.90      | 4310  | 1.38  | 35.00 | 0.72     | 4310 | 0.344 | 35.00 |
|       | 11C  | 1113  | 1.30      | 4500  | 0.646 | 35.00 | 0.86     | 4310  | 0.410 | 35.00 | 2.61      | 4310  | 1.24  | 35.00 | 0.65     | 4310 | 0.310 | 35.00 |
|       | 12C  | 1267  | 1.14      | 4500  | 0.568 | 35.00 | 0.76     | 4310  | 0.360 | 35.00 | 2.29      | 4310  | 1.09  | 35.00 | 0.57     | 4310 | 0.272 | 35.00 |
|       | 14C  | 1398  | 1.04      | 4500  | 0.514 | 35.00 | 0.69     | 4310  | 0.326 | 35.00 | 2.07      | 4310  | 0.99  | 35.00 | 0.52     | 4310 | 0.246 | 35.00 |
|       | 16C  | 1605  | 0.90      | 4500  | 0.448 | 35.00 | 0.60     | 4310  | 0.284 | 35.00 | 1.81      | 4310  | 0.858 | 35.00 | 0.45     | 4310 | 0.215 | 35.00 |
|       | 18C  | 1761  | 0.82      | 4500  | 0.408 | 35.00 | 0.55     | 4310  | 0.259 | 35.00 | 1.65      | 4310  | 0.782 | 35.00 | 0.41     | 4310 | 0.196 | 35.00 |
|       | 20C  | 2030  | 0.71      | 4500  | 0.354 | 35.00 | 0.47     | 4310  | 0.225 | 35.00 | 1.43      | 4310  | 0.679 | 35.00 | 0.36     | 4310 | 0.170 | 35.00 |
|       | 22C  | 2241  | 0.65      | 4500  | 0.321 | 35.00 | 0.43     | 4310  | 0.204 | 35.00 | 1.29      | 4310  | 0.615 | 35.00 | 0.32     | 4310 | 0.154 | 35.00 |
|       | 25C  | 2487  | 0.58      | 4500  | 0.289 | 35.00 | 0.39     | 4310  | 0.183 | 35.00 | 1.17      | 4310  | 0.554 | 35.00 | 0.29     | 4310 | 0.138 | 35.00 |
|       | 28C  | 2772  | 0.52      | 4500  | 0.259 | 35.00 | 0.35     | 4310  | 0.165 | 35.00 | 1.05      | 4310  | 0.497 | 35.00 | 0.26     | 4310 | 0.124 | 35.00 |
|       | 32C  | 3109  | 0.47      | 4500  | 0.231 | 35.00 | 0.31     | 4310  | 0.147 | 35.00 | 0.93      | 4310  | 0.443 | 35.00 | 0.23     | 4310 | 0.111 | 35.00 |
|       | 36C  | 3720  | 0.39      | 4500  | 0.193 | 35.00 | 0.26     | 4310  | 0.123 | 35.00 | 0.78      | 4310  | 0.370 | 35.00 | 0.19     | 4310 | 0.093 | 35.00 |
| 40C   | 4172 | 0.35  | 4500      | 0.172 | 35.00 | 0.23  | 4310     | 0.109 | 35.00 | 0.70  | 4310      | 0.330 | 35.00 | 0.1   |          |      |       |       |

# F SERIES

## RATINGS

**Key:** Pm= Input Power (kW) M2= Output Torque (Nm) i= Exact Ratio n2= Output Speed (rpm) Fra = Overhung load (kN)

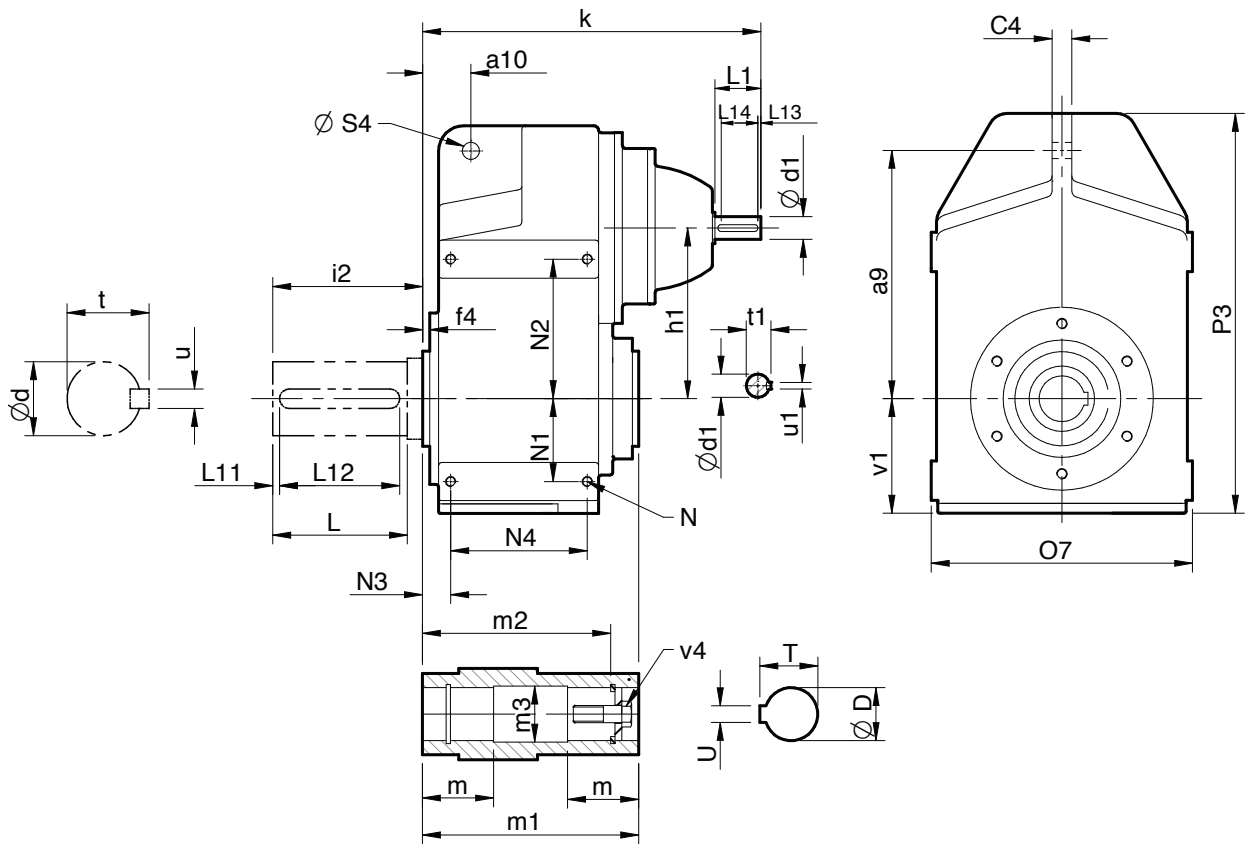
|              |     |       | n1 = 1450 |      |       |       | n1 = 960 |      |       |       | n1 = 2900 |      |       |       | n1 = 725 |      |       |       |
|--------------|-----|-------|-----------|------|-------|-------|----------|------|-------|-------|-----------|------|-------|-------|----------|------|-------|-------|
|              | in  | i     | n2        | M2   | Pm    | Fra   | n2       | M2   | Pm    | Fra   | n2        | M2   | Pm    | Fra   | n2       | M2   | Pm    | Fra   |
| <b>F1033</b> | 100 | 104.9 | 13.83     | 8000 | 12.00 | 43.00 | 9.15     | 8000 | 7.95  | 43.00 | 27.65     | 8000 | 24.01 | 43.00 | 6.91     | 8000 | 6.00  | 43.00 |
|              | 112 | 118.7 | 12.21     | 8000 | 10.60 | 43.00 | 8.09     | 8000 | 7.02  | 43.00 | 24.43     | 8000 | 21.21 | 43.00 | 6.11     | 8000 | 5.30  | 43.00 |
|              | 125 | 132.1 | 10.97     | 8000 | 9.53  | 43.00 | 7.26     | 8000 | 6.31  | 43.00 | 21.95     | 8000 | 19.05 | 43.00 | 5.49     | 8000 | 4.76  | 43.00 |
|              | 160 | 146.8 | 9.88      | 8000 | 8.57  | 43.00 | 6.54     | 8000 | 5.68  | 43.00 | 19.75     | 8000 | 17.15 | 43.00 | 4.94     | 8000 | 4.29  | 43.00 |
|              | 180 | 179.6 | 8.08      | 8000 | 7.01  | 43.00 | 5.35     | 8000 | 4.64  | 43.00 | 16.15     | 8000 | 14.02 | 43.00 | 4.04     | 8000 | 3.51  | 43.00 |
|              | 200 | 207.4 | 6.99      | 8000 | 6.07  | 43.00 | 4.63     | 8000 | 4.02  | 43.00 | 13.98     | 8000 | 12.14 | 43.00 | 3.50     | 8000 | 3.03  | 43.00 |
|              | 225 | 228.9 | 6.33      | 8000 | 5.50  | 43.00 | 4.19     | 8000 | 3.64  | 43.00 | 12.67     | 8000 | 11.00 | 43.00 | 3.17     | 8000 | 2.75  | 43.00 |
|              | 280 | 278.3 | 5.21      | 8000 | 4.52  | 43.00 | 3.45     | 8000 | 2.99  | 43.00 | 10.42     | 8000 | 9.05  | 43.00 | 2.61     | 8000 | 2.26  | 43.00 |
|              | 320 | 314.9 | 4.60      | 8000 | 4.00  | 43.00 | 3.05     | 8000 | 2.65  | 43.00 | 9.21      | 8000 | 7.99  | 43.00 | 2.30     | 8000 | 2.00  | 43.00 |
|              | 360 | 354.1 | 4.09      | 8000 | 3.55  | 43.00 | 2.71     | 8000 | 2.35  | 43.00 | 8.19      | 8000 | 7.11  | 43.00 | 2.05     | 8000 | 1.78  | 43.00 |
| <b>F1043</b> | 400 | 411.3 | 3.53      | 8000 | 3.11  | 43.00 | 2.33     | 8000 | 2.06  | 43.00 | 7.05      | 8000 | 6.22  | 43.00 | 1.76     | 8000 | 1.55  | 43.00 |
|              | 450 | 457.9 | 3.17      | 8000 | 2.79  | 43.00 | 2.10     | 8000 | 1.85  | 43.00 | 6.33      | 8000 | 5.58  | 43.00 | 1.58     | 8000 | 1.40  | 43.00 |
|              | 500 | 508.7 | 2.85      | 8000 | 2.51  | 43.00 | 1.89     | 8000 | 1.66  | 43.00 | 5.70      | 8000 | 5.03  | 43.00 | 1.43     | 8000 | 1.26  | 43.00 |
|              | 560 | 565.6 | 2.56      | 8000 | 2.26  | 43.00 | 1.70     | 8000 | 1.50  | 43.00 | 5.13      | 8000 | 4.52  | 43.00 | 1.28     | 8000 | 1.13  | 43.00 |
|              | 630 | 622.2 | 2.33      | 8000 | 2.05  | 43.00 | 1.54     | 8000 | 1.36  | 43.00 | 4.66      | 8000 | 4.11  | 43.00 | 1.17     | 8000 | 1.03  | 43.00 |
|              | 710 | 715.0 | 2.03      | 8000 | 1.79  | 43.00 | 1.34     | 8000 | 1.18  | 43.00 | 4.06      | 8000 | 3.58  | 43.00 | 1.01     | 8000 | 0.894 | 43.00 |
|              | 800 | 810.7 | 1.79      | 8000 | 1.58  | 43.00 | 1.18     | 8000 | 1.04  | 43.00 | 3.58      | 8000 | 3.15  | 43.00 | 0.89     | 8000 | 0.789 | 43.00 |
|              | 900 | 894.2 | 1.62      | 8000 | 1.43  | 43.00 | 1.07     | 8000 | 0.947 | 43.00 | 3.24      | 8000 | 2.86  | 43.00 | 0.81     | 8000 | 0.715 | 43.00 |
|              | 10C | 1024  | 1.42      | 8000 | 1.25  | 43.00 | 0.937    | 8000 | 0.827 | 43.00 | 2.83      | 8000 | 2.50  | 43.00 | 0.71     | 8000 | 0.624 | 43.00 |
|              | 11C | 1140  | 1.27      | 8000 | 1.12  | 43.00 | 0.842    | 8000 | 0.742 | 43.00 | 2.54      | 8000 | 2.24  | 43.00 | 0.64     | 8000 | 0.561 | 43.00 |
|              | 12C | 1256  | 1.15      | 8000 | 1.02  | 43.00 | 0.764    | 8000 | 0.674 | 43.00 | 2.31      | 8000 | 2.04  | 43.00 | 0.58     | 8000 | 0.509 | 43.00 |
|              | 14C | 1386  | 1.05      | 8000 | 0.923 | 43.00 | 0.693    | 8000 | 0.611 | 43.00 | 2.09      | 8000 | 1.85  | 43.00 | 0.52     | 8000 | 0.461 | 43.00 |
|              | 16C | 1601  | 0.906     | 8000 | 0.799 | 43.00 | 0.600    | 8000 | 0.529 | 43.00 | 1.81      | 8000 | 1.60  | 43.00 | 0.45     | 8000 | 0.399 | 43.00 |
|              | 18C | 1794  | 0.808     | 8000 | 0.713 | 43.00 | 0.535    | 8000 | 0.472 | 43.00 | 1.62      | 8000 | 1.43  | 43.00 | 0.40     | 8000 | 0.356 | 43.00 |
|              | 20C | 2025  | 0.716     | 8000 | 0.631 | 43.00 | 0.474    | 8000 | 0.418 | 43.00 | 1.43      | 8000 | 1.26  | 43.00 | 0.36     | 8000 | 0.316 | 43.00 |
|              | 22C | 2236  | 0.649     | 8000 | 0.572 | 43.00 | 0.429    | 8000 | 0.379 | 43.00 | 1.30      | 8000 | 1.14  | 43.00 | 0.32     | 8000 | 0.286 | 43.00 |
|              | 25C | 2481  | 0.584     | 8000 | 0.515 | 43.00 | 0.387    | 8000 | 0.341 | 43.00 | 1.17      | 8000 | 1.03  | 43.00 | 0.29     | 8000 | 0.258 | 43.00 |
|              | 28C | 2796  | 0.519     | 8000 | 0.457 | 43.00 | 0.343    | 8000 | 0.303 | 43.00 | 1.04      | 8000 | 0.915 | 43.00 | 0.26     | 8000 | 0.229 | 43.00 |
|              | 32C | 3261  | 0.445     | 8000 | 0.392 | 43.00 | 0.294    | 8000 | 0.260 | 43.00 | 0.89      | 8000 | 0.784 | 43.00 | 0.22     | 8000 | 0.196 | 43.00 |
|              | 36C | 3752  | 0.386     | 8000 | 0.341 | 43.00 | 0.256    | 8000 | 0.226 | 43.00 | 0.77      | 8000 | 0.682 | 43.00 | 0.19     | 8000 | 0.170 | 43.00 |
|              | 40C | 4168  | 0.348     | 8000 | 0.307 | 43.00 | 0.230    | 8000 | 0.203 | 43.00 | 0.70      | 8000 | 0.613 | 43.00 | 0.17     | 8000 | 0.153 | 43.00 |
|              | 45C | 4718  | 0.307     | 7750 | 0.263 | 43.00 | 0.203    | 7750 | 0.174 | 43.00 | 0.61      | 7750 | 0.525 | 43.00 | 0.15     | 7750 | 0.131 | 43.00 |
|              | 50C | 5305  | 0.273     | 7040 | 0.212 | 43.00 | 0.181    | 7040 | 0.140 | 43.00 | 0.55      | 7040 | 0.424 | 43.00 | 0.14     | 7040 | 0.106 | 43.00 |

**Note:** Input power Pm may exceed thermal power rating

# F SERIES

## DIMENSIONS

### DOUBLE / TRIPLE REDUCTION



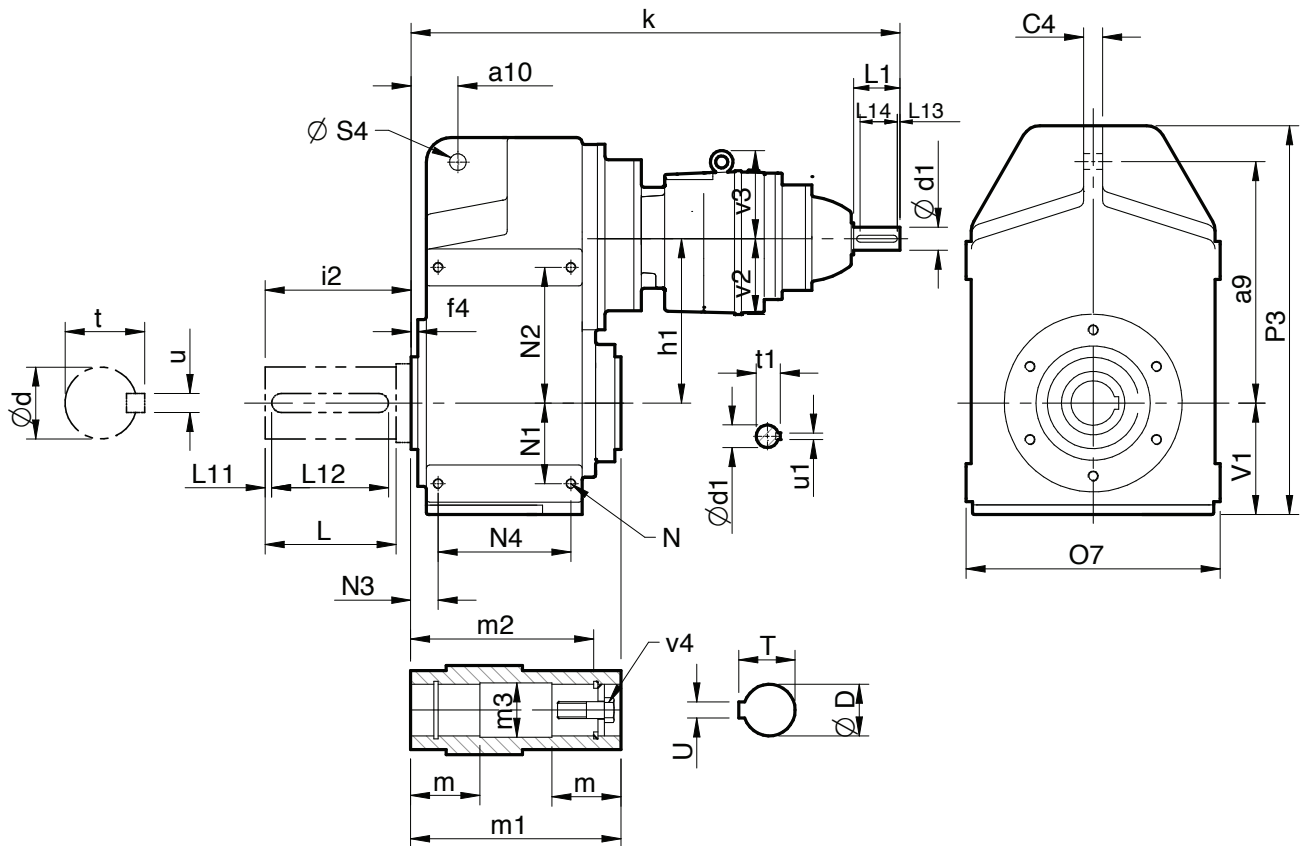
|                      | a9  | a10  | C4 | f4  | h1    | N   | N1  | N2  | N3   | N4  | O7  | P3  | S4 | v1  |
|----------------------|-----|------|----|-----|-------|-----|-----|-----|------|-----|-----|-----|----|-----|
| <b>F0223 - F0233</b> | 140 | 25   | 10 | 5   | 96    | M8  | 48  | 38  | 21.5 | 68  | 144 | 225 | 14 | 61  |
| <b>F0323 - F0333</b> | 158 | 31.5 | 12 | 3   | 102.8 | M8  | 31  | 84  | 22.5 | 77  | 165 | 252 | 14 | 77  |
| <b>F0423 - F0433</b> | 170 | 32   | 12 | 3   | 120   | M10 | 50  | 60  | 24   | 90  | 176 | 289 | 14 | 88  |
| <b>F0523 - F0533</b> | 198 | 40.5 | 14 | 3   | 139.2 | M12 | 55  | 115 | 33.5 | 102 | 200 | 327 | 14 | 97  |
| <b>F0623 - F0633</b> | 218 | 41   | 16 | 2   | 160   | M12 | 65  | 85  | 28   | 125 | 236 | 367 | 14 | 110 |
| <b>F0723 - F0733</b> | 278 | 50   | 20 | 2   | 200   | M16 | 85  | 115 | 30   | 150 | 280 | 449 | 22 | 134 |
| <b>F0823 - F0833</b> | 346 | 62   | 26 | 3   | 226   | M16 | 100 | 100 | 35   | 170 | 340 | 526 | 22 | 148 |
| <b>F0923 - F0933</b> | 395 | 70   | 30 | 5   | 274   | M16 | 125 | 225 | 38   | 215 | 400 | 612 | 27 | 175 |
| <b>F1023 - F1033</b> | 485 | 88   | 36 | 5.5 | 332   | M20 | 158 | 272 | 41.5 | 250 | 470 | 748 | 27 | 216 |

|              | k     | d1(k6) | L1  | L13 | L14 | t1   | u1 | D (H7) | m   | m1    | m2  | m3   | T    | U  | v4     | d     | i2  | L   | L11 | L12 | t    | u  |
|--------------|-------|--------|-----|-----|-----|------|----|--------|-----|-------|-----|------|------|----|--------|-------|-----|-----|-----|-----|------|----|
| <b>F0223</b> | 231   | 16     | 40  | 4   | 32  | 18   | 5  | 25     | 45  | 117.5 | 89  | 25.2 | 28.3 | 8  | M10x25 | -     | -   | -   | -   | -   | -    | -  |
| <b>F0233</b> | 246   | 16     | 40  | 4   | 32  | 18   | 5  | 30     | 52  | 120   | 105 | 30.3 | 33.3 | 8  | M10x25 | 25 k6 | 50  | 47  | 3   | 40  | 28   | 8  |
| <b>F0323</b> | 235   | 16     | 40  | 4   | 32  | 18   | 5  | 35     | 65  | 150   | 132 | 35.3 | 38.3 | 10 | M12x30 | 30 k6 | 60  | 56  | 3   | 50  | 33   | 8  |
| <b>F0333</b> | 248   | 16     | 40  | 4   | 32  | 18   | 5  | 40     | 65  | 166   | 142 | 40.3 | 43.3 | 12 | M16x40 | 35 k6 | 70  | 66  | 3   | 60  | 38   | 10 |
| <b>F0423</b> | 248   | 16     | 40  | 4   | 32  | 18   | 5  | 40     | 90  | 200   | 156 | 40.3 | 43.3 | 12 | M16x40 | 40 k6 | 81  | 76  | 3   | 70  | 43   | 12 |
| <b>F0433</b> | 261   | 16     | 40  | 4   | 32  | 18   | 5  | 50     | 105 | 235   | 183 | 50.5 | 53.8 | 14 | M16x45 | 50 k6 | 101 | 95  | 3   | 80  | 53.5 | 14 |
| <b>F0523</b> | 277   | 19     | 40  | 4   | 32  | 21.5 | 6  | 60     | 117 | 265   | 210 | 60.5 | 64.4 | 18 | M20x50 | 60 m6 | 120 | 114 | 3   | 100 | 64   | 18 |
| <b>F0533</b> | 285   | 16     | 40  | 4   | 32  | 18   | 5  | 70     | 147 | 330   | 270 | 70.5 | 74.9 | 20 | M20x50 | 70 m6 | 141 | 135 | 3   | 110 | 74.5 | 20 |
| <b>F0623</b> | 296   | 19     | 40  | 4   | 32  | 21.5 | 6  | 90     | 165 | 370   | 313 | 90.5 | 95.4 | 25 | M24x60 | 90 m6 | 172 | 165 | 5   | 140 | 95   | 25 |
| <b>F0633</b> | 304   | 16     | 40  | 4   | 32  | 18   | 5  |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F0723</b> | 335   | 24     | 50  | 5   | 40  | 27   | 8  |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F0733</b> | 347   | 19     | 40  | 4   | 32  | 21.5 | 6  |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F0823</b> | 408   | 28     | 60  | 5   | 50  | 31   | 8  |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F0833</b> | 393   | 24     | 50  | 5   | 40  | 27   | 8  |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F0923</b> | 491   | 38     | 80  | 5   | 70  | 41   | 10 |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F0933</b> | 485   | 28     | 60  | 5   | 50  | 31   | 8  |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F1023</b> | 576   | 42     | 110 | 10  | 70  | 45   | 12 |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |
| <b>F1033</b> | 570.5 | 38     | 80  | 5   | 70  | 41   | 10 |        |     |       |     |      |      |    |        |       |     |     |     |     |      |    |

# F SERIES

## DIMENSIONS

### QUADRUPLE REDUCTION



|              | a9  | a10  | C4 | f4  | h1    | N   | N1  | N2  | N3   | N4  | O7  | P3  | S4 | v1  | v2  | v3  |
|--------------|-----|------|----|-----|-------|-----|-----|-----|------|-----|-----|-----|----|-----|-----|-----|
| <b>F0343</b> | 158 | 31.5 | 12 | 3   | 102.8 | M8  | 31  | 84  | 22.5 | 77  | 165 | 252 | 14 | 77  | 76  | 74  |
| <b>F0443</b> | 170 | 32   | 12 | 3   | 120   | M10 | 50  | 60  | 24   | 90  | 176 | 289 | 14 | 88  | 76  | 74  |
| <b>F0543</b> | 198 | 40.5 | 14 | 3   | 139.2 | M12 | 55  | 115 | 33.5 | 102 | 200 | 327 | 14 | 97  | 91  | 90  |
| <b>F0643</b> | 218 | 41   | 16 | 2   | 160   | M12 | 65  | 85  | 28   | 125 | 236 | 367 | 14 | 110 | 91  | 90  |
| <b>F0743</b> | 278 | 50   | 20 | 2   | 200   | M16 | 85  | 115 | 30   | 150 | 280 | 449 | 22 | 134 | 91  | 90  |
| <b>F0843</b> | 346 | 62   | 26 | 3   | 226   | M16 | 100 | 100 | 35   | 170 | 340 | 526 | 22 | 148 | 115 | 93  |
| <b>F0943</b> | 395 | 70   | 30 | 5   | 274   | M16 | 125 | 225 | 38   | 215 | 400 | 612 | 27 | 175 | 115 | 93  |
| <b>F1043</b> | 485 | 88   | 36 | 5.5 | 332   | M20 | 158 | 272 | 41.5 | 250 | 470 | 748 | 27 | 216 | 140 | 155 |

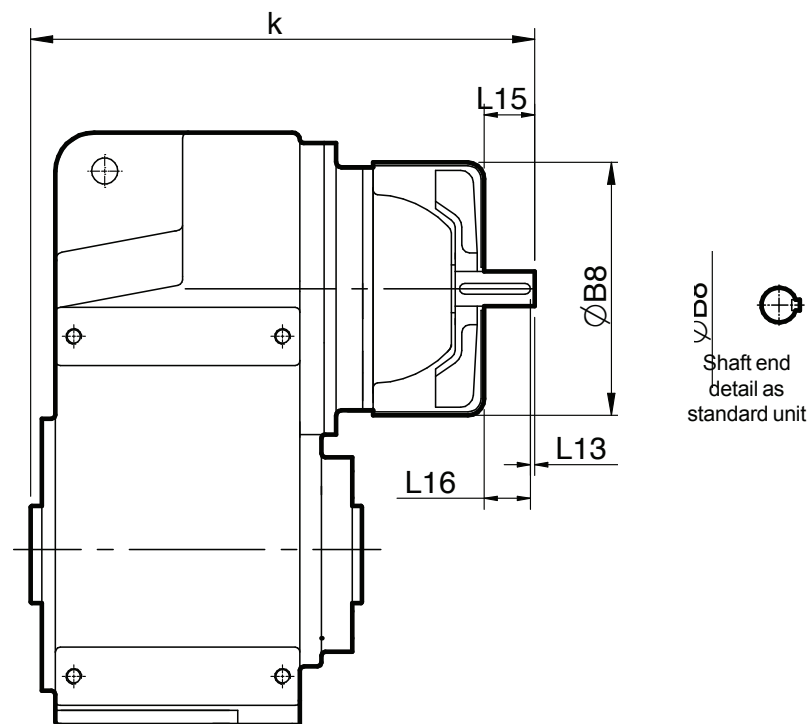
|              | k   | d1(k6) | L1 | L13 | L14 | t1   | u1 | D (H7) | m   | m1  | m2  | m3   | T    | U  | v4     | d     | i2  | L   | L11 | L12 | t    | u  |
|--------------|-----|--------|----|-----|-----|------|----|--------|-----|-----|-----|------|------|----|--------|-------|-----|-----|-----|-----|------|----|
| <b>F0343</b> | 421 | 16     | 40 | 4   | 32  | 18   | 5  | 30     | 52  | 120 | 105 | 30.3 | 33.3 | 8  | M10x25 | 25 k6 | 50  | 47  | 3   | 40  | 28   | 8  |
| <b>F0443</b> | 434 | 16     | 40 | 4   | 32  | 18   | 5  | 35     | 65  | 150 | 132 | 35.3 | 38.3 | 10 | M12x30 | 30 k6 | 60  | 56  | 3   | 50  | 33   | 8  |
| <b>F0543</b> | 479 | 16     | 40 | 4   | 32  | 18   | 5  | 40     | 65  | 166 | 142 | 40.3 | 43.3 | 12 | M16x40 | 35 k6 | 70  | 66  | 3   | 60  | 38   | 10 |
| <b>F0643</b> | 498 | 16     | 40 | 4   | 32  | 18   | 5  | 40     | 90  | 200 | 156 | 40.3 | 43.3 | 12 | M16x40 | 40 k6 | 81  | 76  | 3   | 70  | 43   | 12 |
| <b>F0743</b> | 534 | 16     | 40 | 4   | 32  | 18   | 5  | 50     | 105 | 235 | 183 | 50.5 | 53.8 | 14 | M16x45 | 50 k6 | 101 | 95  | 3   | 80  | 53.5 | 14 |
| <b>F0843</b> | 604 | 19     | 40 | 4   | 32  | 21.5 | 6  | 60     | 117 | 265 | 210 | 60.5 | 64.4 | 18 | M20x50 | 60 m6 | 120 | 114 | 3   | 100 | 64   | 18 |
| <b>F0943</b> | 663 | 19     | 40 | 4   | 32  | 21.5 | 6  | 70     | 147 | 330 | 270 | 70.5 | 74.9 | 20 | M20x50 | 70 m6 | 141 | 135 | 3   | 110 | 74.5 | 20 |
| <b>F1043</b> | 750 | 24     | 50 | 5   | 40  | 27   | 8  | 90     | 165 | 370 | 313 | 90.5 | 95.4 | 25 | M24x60 | 90 m6 | 172 | 165 | 5   | 140 | 95   | 25 |

### Column 10 Entry

For reducer fan kit modules enter **S** in column 10

or if used in conjunction with a reducer backstop module kit **Y** CW rotation  
**Z** CCW rotation

### Dimensions of Fan Cooled Units



|              | ØB8 | k   | L13 | L15 | L16 |
|--------------|-----|-----|-----|-----|-----|
| <b>F0723</b> | 225 | 335 | 5   | 35  | 30  |
| <b>F0823</b> | 265 | 408 | 5   | 45  | 40  |
| <b>F0923</b> | 320 | 491 | 5   | 65  | 60  |
| <b>F1023</b> | 380 | 576 | 10  | 95  | 85  |

# F SERIES

## REDUCER BACKSTOP MODULE

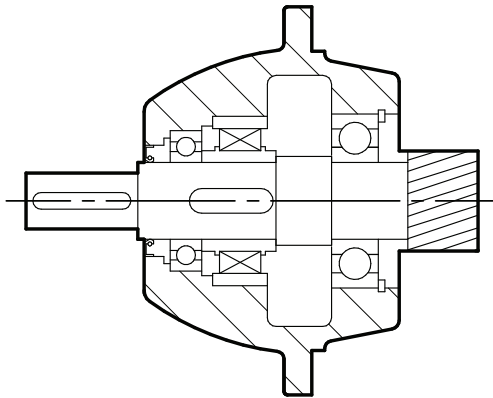
The reducer units listed below can be fitted with an internal backstop, this has no effect of the external unit size. The backstop device incorporates high quality centrifugal lift off sprags which are wear free above the lift off speed (n min). To ensure correct operation input speed must exceed lift off speed.

Suitable for ambient temperature -40°C to + 50°C

### Column 10 Entry

For reducer backstop modules enter:

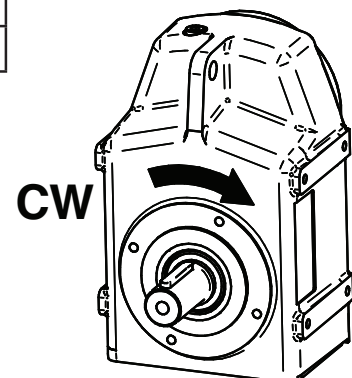
☐ W for CCW rotation      (or ☐ Z if used in conjunction with a fan kit)  
☐ X for CW rotation      (or ☐ Y if used in conjunction with a fan kit)



| Size  | Lift off Speed ('n' min)<br>(at inputshaft)<br>(rev/min) | Rated Locking Torque ('T max')<br>(at inputshaft)<br>(Nm) |
|-------|----------------------------------------------------------|-----------------------------------------------------------|
| F0523 | 800                                                      | 100                                                       |
| F0623 | 800                                                      | 100                                                       |
| F0723 | 670                                                      | 170                                                       |
| K0733 | 800                                                      | 100                                                       |
| F0823 | 670                                                      | 300                                                       |
| F0833 | 670                                                      | 170                                                       |
| F0843 | 800                                                      | 100                                                       |
| F0923 | 670                                                      | 940                                                       |
| F0933 | 670                                                      | 300                                                       |
| F0943 | 800                                                      | 100                                                       |
| F1023 | 670                                                      | 1280                                                      |
| F1033 | 610                                                      | 940                                                       |
| F1043 | 670                                                      | 170                                                       |

Rotation of outputshaft must be specified when ordering as viewed from the outputshaft end (as shown in the diagram)

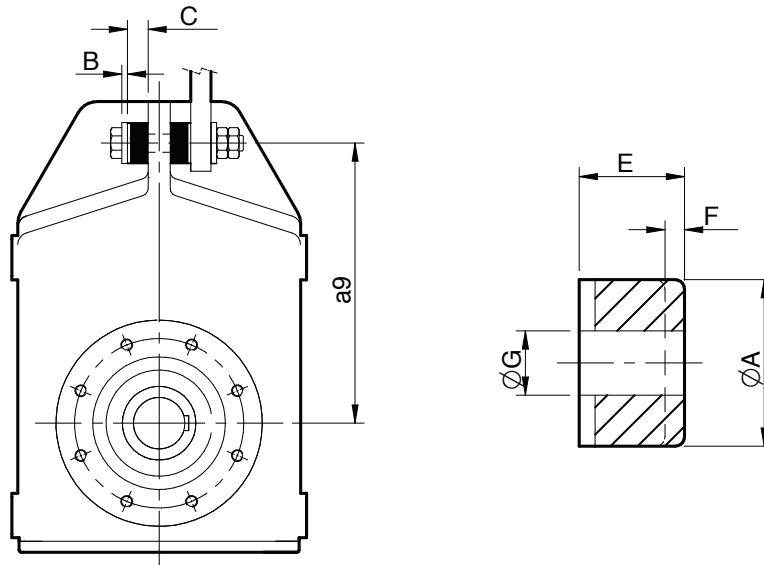
|    |   |               |   |               |
|----|---|---------------|---|---------------|
| CW | - | Free Rotation | - | Clockwise     |
|    |   | Locked        | - | Anticlockwise |
| AC | - | Free Rotation | - | Anticlockwise |
|    |   | Locked        | - | Clockwise     |



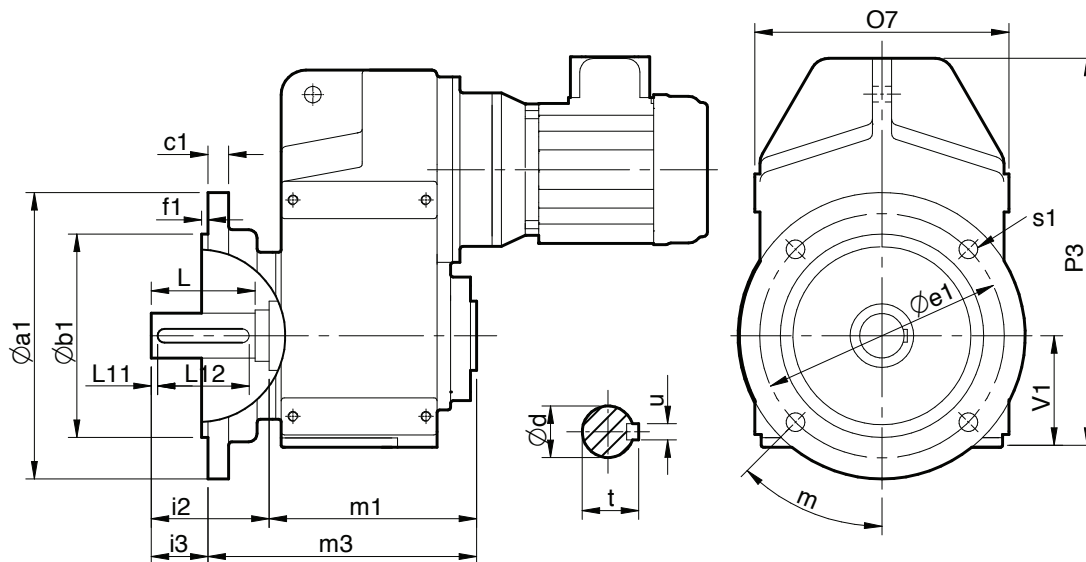
# F SERIES

## DIMENSIONS

### TORQUE BUSHES & OUTPUT FLANGE



|            | A  | B (min) | C    | a9  | E  | F   | G  |
|------------|----|---------|------|-----|----|-----|----|
| <b>F02</b> | 40 | 2       | 18.5 | 140 | 20 | 1.5 | 13 |
| <b>F03</b> | 40 | 2       | 18   | 158 | 20 | 2   | 13 |
| <b>F04</b> | 40 | 2       | 18   | 170 | 20 | 2   | 13 |
| <b>F05</b> | 40 | 2       | 18   | 198 | 20 | 2   | 13 |
| <b>F06</b> | 40 | 2       | 18   | 218 | 20 | 2   | 13 |
| <b>F07</b> | 62 | 10      | 30   | 278 | 33 | 3   | 23 |
| <b>F08</b> | 62 | 10      | 29   | 346 | 33 | 4   | 23 |
| <b>F09</b> | 82 | 12      | 40   | 395 | 44 | 4   | 26 |
| <b>F10</b> | 82 | 12      | 39   | 485 | 44 | 5   | 26 |

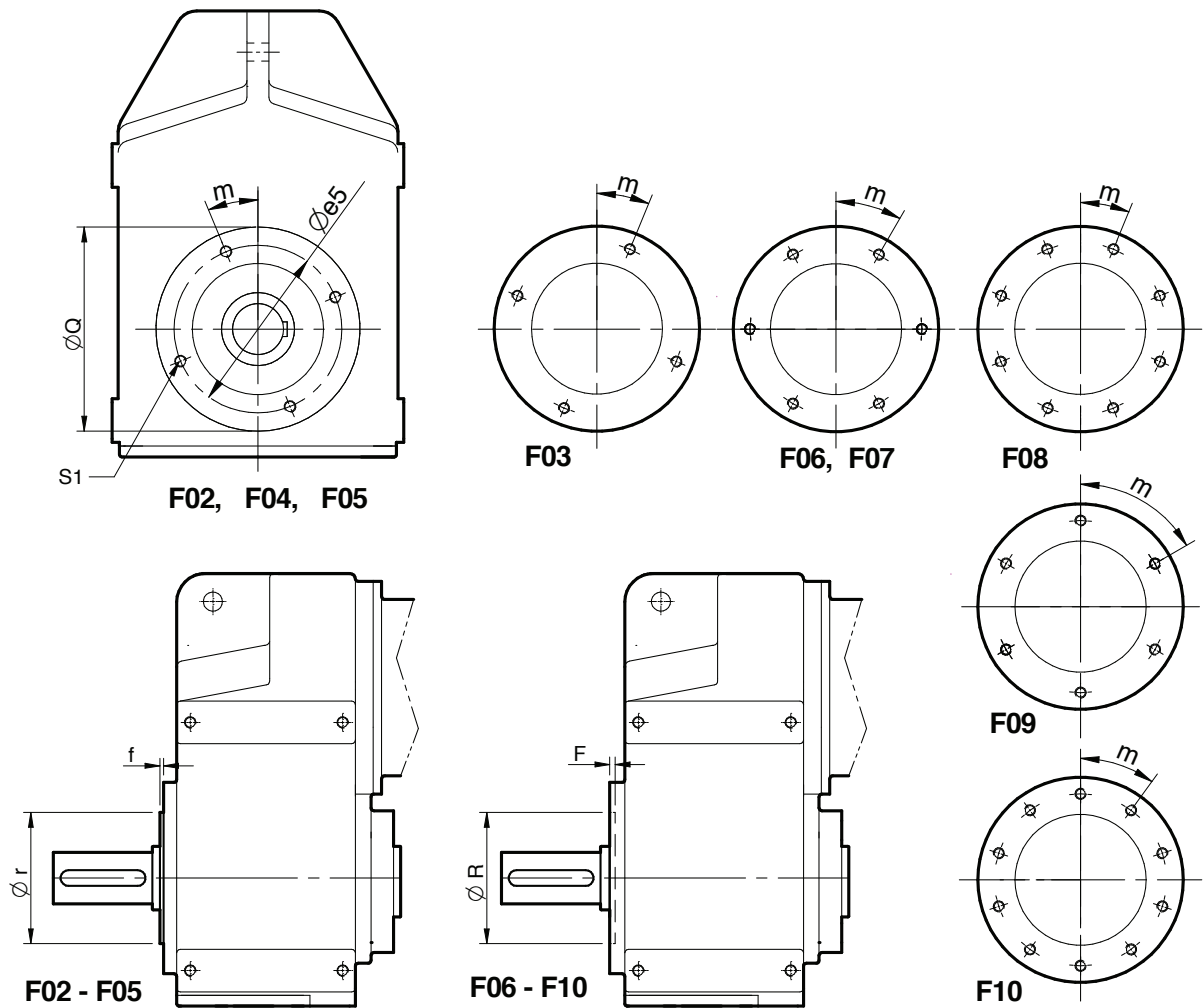


|            | a1  | b1     | c1 | e1  | f1 | m     | m1    | m3    | O7  | P3  | s1      | V1  | d     | i2  | i3   | L   | L11 | L12 | t    | u  |
|------------|-----|--------|----|-----|----|-------|-------|-------|-----|-----|---------|-----|-------|-----|------|-----|-----|-----|------|----|
| <b>F02</b> | 160 | 110 j6 | 10 | 130 | 4  | 45°   | 117.5 | 141.5 | 144 | 225 | 9 (x4)  | 62  | -     | -   | -    | -   | -   | -   | -    | -  |
| <b>F03</b> | 160 | 110 j6 | 10 | 130 | 4  | 45°   | 120   | 146   | 165 | 252 | 9 (x4)  | 77  | 25 k6 | 50  | 24   | 47  | 3   | 40  | 28   | 8  |
| <b>F04</b> | 200 | 130 j6 | 12 | 165 | 4  | 45°   | 150   | 192   | 176 | 289 | 11 (x4) | 88  | 30 k6 | 60  | 18   | 56  | 3   | 50  | 33   | 8  |
| <b>F05</b> | 200 | 130 j6 | 12 | 165 | 4  | 45°   | 166   | 208   | 200 | 327 | 11 (x4) | 97  | 35 k6 | 70  | 28   | 66  | 3   | 60  | 38   | 10 |
| <b>F06</b> | 250 | 180 j6 | 12 | 215 | 4  | 45°   | 200   | 239.5 | 236 | 367 | 14 (x4) | 110 | 40 k6 | 81  | 41.5 | 76  | 3   | 70  | 43   | 12 |
| <b>F07</b> | 250 | 180 j6 | 12 | 215 | 4  | 45°   | 235   | 274.5 | 280 | 449 | 14 (x4) | 134 | 50 k6 | 101 | 61.5 | 95  | 3   | 80  | 53.5 | 14 |
| <b>F08</b> | 350 | 250 h6 | 18 | 300 | 5  | 45°   | 265   | 312   | 340 | 526 | 18 (x4) | 148 | 60 m6 | 120 | 73   | 114 | 3   | 100 | 64   | 18 |
| <b>F09</b> | 450 | 350 h6 | 20 | 400 | 5  | 22.5° | 330   | 381   | 400 | 612 | 18 (x8) | 175 | 70 m6 | 141 | 90   | 135 | 3   | 110 | 74.5 | 20 |
| <b>F10</b> | 450 | 350 h6 | 22 | 400 | 5  | 22.5° | 370   | 430   | 470 | 748 | 18 (x8) | 216 | 90 m6 | 172 | 112  | 165 | 5   | 140 | 95   | 25 |

# F SERIES

## DIMENSIONS

### C (B14) FLANGE



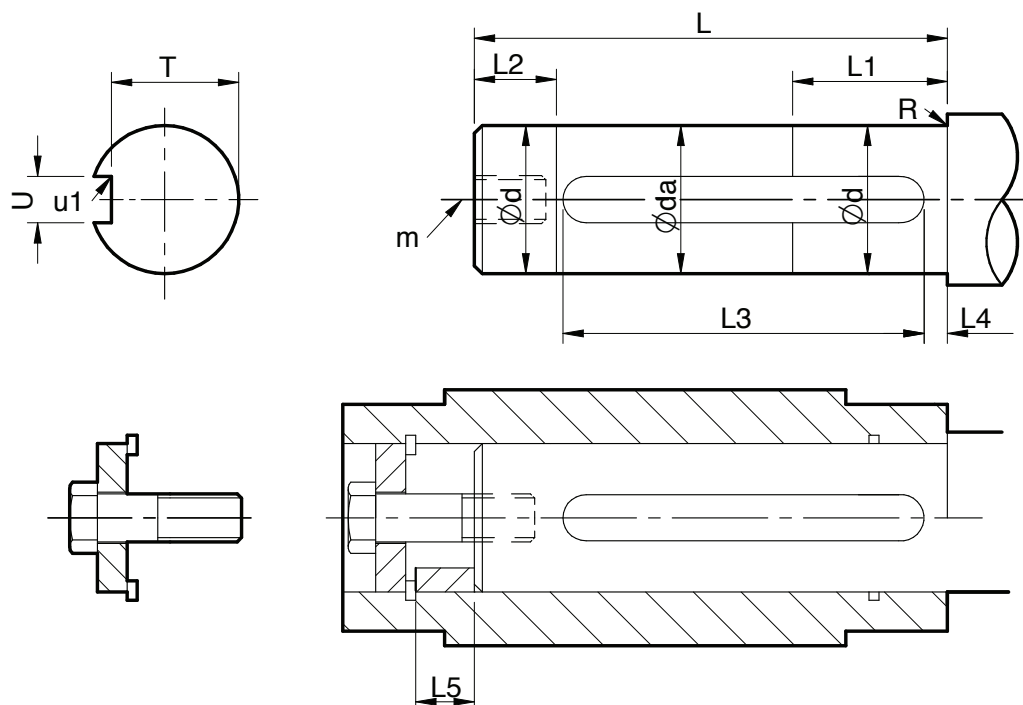
|            | e5  | f | F   | m     | Q   | r (j6) | R (H7) | S1            |
|------------|-----|---|-----|-------|-----|--------|--------|---------------|
| <b>F02</b> | 107 | 3 | -   | 22.5° | 122 | 85     | -      | 4 - M8 x 12   |
| <b>F03</b> | 107 | 3 | -   | 22.5° | 122 | 85     | -      | 4 - M8 x 12   |
| <b>F04</b> | 130 | 3 | -   | 22.5° | 146 | 105    | -      | 4 - M8 x 12   |
| <b>F05</b> | 130 | 3 | -   | 22.5° | 146 | 105    | -      | 4 - M8 x 12   |
| <b>F06</b> | 150 | - | 4.5 | 30°   | 180 | -      | 130    | 6 - M12 x 20  |
| <b>F07</b> | 150 | - | 4.5 | 30°   | 180 | -      | 130    | 6 - M12 x 20  |
| <b>F08</b> | 195 | - | 5   | 22.5° | 230 | -      | 150    | 8 - M12 x 20  |
| <b>F09</b> | 230 | - | 6   | 60°   | 280 | -      | 180    | 6 - M16 x 27  |
| <b>F10</b> | 280 | - | 7   | 36°   | 310 | -      | 210    | 10 - M16 x 27 |

# F SERIES

## DIMENSIONS

### STANDARD BORE ASSEMBLY

#### Assembly Onto Shaft - Customers Shaft Detail



|     | d                 | da   | L   | L1  | L2 | L3             | L4 | L5 | m           | N     | R    | T            | U                 | u1            |
|-----|-------------------|------|-----|-----|----|----------------|----|----|-------------|-------|------|--------------|-------------------|---------------|
| F02 | 24.993/<br>24.980 | 24.6 | 82  | 40  | 13 | 70.3<br>70.0   | 3  | 23 | M10x1.5x22  | 15Nm  | 0.8R | 21.0<br>20.8 | 8.000/<br>7.964   | 0.16<br>0.25R |
| F03 | 29.993/<br>29.980 | 29.6 | 82  | 45  | 15 | 70.3<br>70.0   | 3  | 23 | M10x1.5x22  | 15Nm  | 0.8R | 26.0<br>25.8 | 8.000/<br>7.964   | 0.16<br>0.25R |
| F04 | 34.991/<br>34.975 | 34.6 | 109 | 60  | 20 | 90.5<br>90.0   | 3  | 23 | M12x1.75x30 | 20Nm  | 0.8R | 30.0<br>29.8 | 10.000/<br>9.964  | 0.16<br>0.25R |
| F05 | 39.991/<br>39.975 | 39.6 | 112 | 60  | 20 | 92.5<br>92.0   | 3  | 30 | M16x2x38    | 45Nm  | 0.8R | 35.0<br>34.8 | 12.000/<br>11.957 | 0.4<br>0.25R  |
| F06 | 39.991/<br>39.975 | 39.6 | 126 | 75  | 25 | 100.5<br>100.0 | 3  | 30 | M16x2x38    | 45Nm  | 0.8R | 35.0<br>34.8 | 12.000/<br>11.957 | 0.4<br>0.25R  |
| F07 | 49.991/<br>49.975 | 49.6 | 153 | 90  | 30 | 130.5<br>130.0 | 3  | 30 | M16x2x38    | 45Nm  | 0.8R | 44.0<br>44.3 | 14.000/<br>13.957 | 0.4<br>0.25R  |
| F08 | 59.990/<br>59.971 | 59.6 | 173 | 90  | 30 | 148.5<br>148.0 | 3  | 37 | M20x2.5x42  | 85Nm  | 0.8R | 53.0<br>52.8 | 18.000/<br>17.957 | 0.4<br>0.25R  |
| F09 | 69.991/<br>69.975 | 69.6 | 232 | 105 | 35 | 161.5<br>161.0 | 3  | 38 | M20x2.5x42  | 85Nm  | 0.8R | 62.5<br>62.3 | 20.000/<br>19.948 | 0.6<br>0.4R   |
| F10 | 89.988/<br>89.966 | 89.6 | 275 | 135 | 40 | 188.5<br>188.0 | 5  | 38 | M24x3.0x50  | 200Nm | 0.8R | 81.0<br>80.8 | 25.000/<br>24.948 | 0.6<br>0.4R   |

#### Assembly Instructions

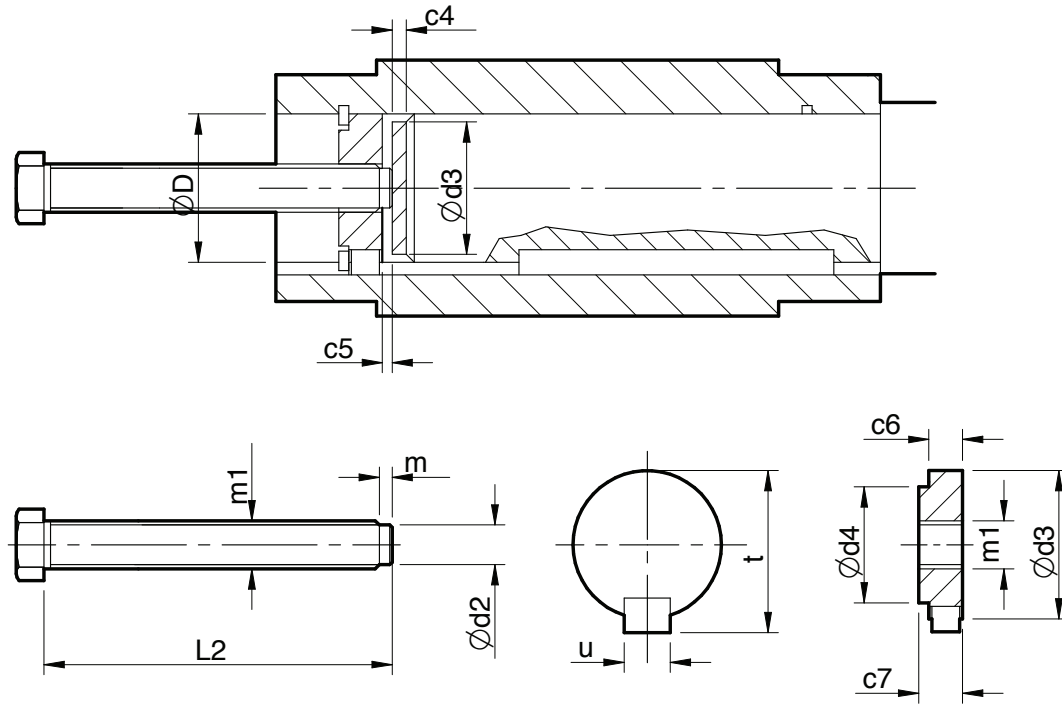
1. Spray the hollow shaft bore and mating diameter of the output shaft with Rocol DFSM or equivalent anti-scuffing spray.
2. Fit key into shaft.
3. Fit the circlip into the output sleeve.
4. Fit the spacer tube only if the output shaft has no shoulder, then fit the output shaft into the output sleeve.
5. Secure in place with the washer and bolt. Torque tighten to the values stated in column N of the above table.

# F SERIES

## DIMENSIONS

### STANDARD BORE DISASSEMBLY

#### Disassembly Method from Shaft

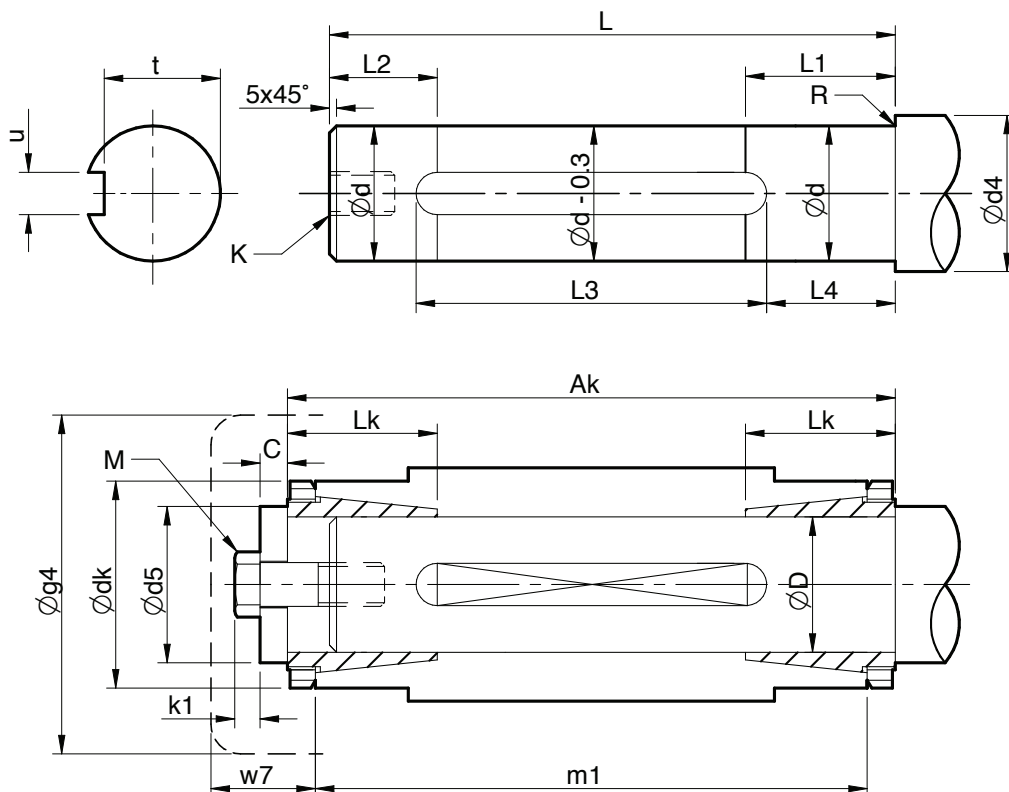


|     | c4 | c5 | c6 | c7 | D  | d2 | d3   | d4 | L2  | m | m1         | t    | u  |
|-----|----|----|----|----|----|----|------|----|-----|---|------------|------|----|
| F02 | 5  | 3  | 15 | 17 | 25 | 10 | 24.9 | 16 | 120 | 3 | M12 x 1.75 | 28   | 8  |
| F03 | 5  | 3  | 15 | 17 | 30 | 13 | 29.9 | 20 | 130 | 3 | M16 x 2.0  | 33   | 8  |
| F04 | 5  | 3  | 15 | 17 | 35 | 13 | 34.9 | 25 | 160 | 3 | M16 x 2.0  | 38   | 10 |
| F05 | 5  | 4  | 20 | 23 | 40 | 20 | 39.9 | 29 | 190 | 3 | M24 x 2.5  | 43   | 12 |
| F06 | 5  | 4  | 20 | 23 | 40 | 20 | 39.9 | 29 | 190 | 3 | M24 x 3.0  | 43   | 12 |
| F07 | 5  | 4  | 20 | 23 | 50 | 20 | 49.9 | 39 | 220 | 3 | M24 x 3.0  | 53.5 | 14 |
| F08 | 8  | 5  | 24 | 27 | 60 | 25 | 59.9 | 47 | 250 | 5 | M30 x 3.5  | 64   | 18 |
| F09 | 8  | 6  | 24 | 27 | 70 | 25 | 69.9 | 53 | 310 | 5 | M30 x 3.5  | 74.5 | 20 |
| F10 | 8  | 6  | 24 | 27 | 90 | 25 | 89.9 | 72 | 360 | 5 | M30 x 3.5  | 95   | 25 |

# F SERIES

## DIMENSIONS

### KIBO BUSHING



|     | d<br>(h8) | Kibo       | Col<br>11 | d4    | K      | L   | L1 | L2 | L3  | L4  | R   | t    | u<br>(N9) | dk  | m1  | Ak  | Lk   | d5 | C  | M   | e  | k1 | Nm  | g4  | w7 |
|-----|-----------|------------|-----------|-------|--------|-----|----|----|-----|-----|-----|------|-----------|-----|-----|-----|------|----|----|-----|----|----|-----|-----|----|
| F04 | 35        | C38214-S1  | 1         | 40-42 | M12x28 | 168 | 40 | 36 | 60  | 60  | 1.2 | 30   | 10        | 65  | 150 | 174 | 40   | 45 | 10 | M12 | 22 | 8  | 56  | 80  | 35 |
|     | 30        | C38214-S3  | 2         | 35-42 | M10x22 |     |    |    |     |     |     | 26   | 8         |     |     |     |      |    |    | M10 | 20 | 7  | 40  |     |    |
|     | 25        | C38214-S4  | 3         | 30-42 | M10x22 |     |    |    |     |     |     | 21   | 8         |     |     |     |      |    |    | M10 | 20 | 7  | 40  |     |    |
| F05 | 35        | C38214-S1  | 1         | 40-42 | M12x28 | 185 | 40 | 36 | 60  | 60  | 1.2 | 30   | 10        | 65  | 166 | 190 | 40   | 45 | 10 | M12 | 22 | 8  | 56  | 85  | 45 |
|     | 30        | C38214-S3  | 2         | 35-42 | M10x22 |     |    |    |     |     |     | 26   | 8         |     |     |     |      |    |    | M10 | 20 | 7  | 40  |     |    |
|     | 25        | C38214-S4  | 3         | 30-42 | M10x22 |     |    |    |     |     |     | 21   | 8         |     |     |     |      |    |    | M10 | 20 | 7  | 40  |     |    |
| F06 | 40        | C38364-S2  | 1         | 45-51 | M16x36 | 220 | 50 | 45 | 77  | 78  | 1.2 | 35   | 12        | 75  | 200 | 228 | 50   | 55 | 12 | M16 | 28 | 10 | 124 | 85  | 45 |
|     | 35        | C38364-S3  | 2         | 40-51 | M12x28 |     |    |    |     |     |     | 30   | 10        |     |     |     |      |    |    | M12 | 22 | 8  | 56  |     |    |
|     | 30        | C38364-S4  | 3         | 35-51 | M10x22 |     |    |    |     |     |     | 26   | 8         |     |     |     |      |    |    | M10 | 20 | 7  | 40  |     |    |
| F07 | 50        | C38464-S9  | 1         | 55-61 | M16x36 | 258 | 58 | 52 | 79  | 93  | 1.2 | 44.5 | 14        | 80  | 235 | 266 | 58   | 65 | 14 | M16 | 28 | 10 | 124 | 120 | 45 |
|     | 45        | C38464-S10 | 2         | 50-61 |        |     |    |    |     |     |     | 39.5 | 14        |     |     |     |      |    |    | M16 | 28 | 10 | 124 |     |    |
|     | 40        | C38464-S11 | 3         | 45-61 |        |     |    |    |     |     |     | 35   | 12        |     |     |     |      |    |    | M16 | 28 | 10 | 124 |     |    |
| F08 | 60        | C38614-S2  | 1         | 66-71 | M20x42 | 288 | 61 | 52 | 108 | 97  | 1.6 | 53   | 18        | 98  | 265 | 298 | 61   | 75 | 16 | M20 | 35 | 13 | 240 | 145 | 55 |
|     | 55        | C38614-S3  | 2         | 61-71 |        |     |    |    |     |     |     | 49   | 16        |     |     |     |      |    |    | M20 | 35 | 13 | 240 |     |    |
|     | 50        | C38614-S4  | 3         | 56-71 | M16x36 |     |    |    |     |     |     | 44.5 | 14        |     |     |     |      |    |    | M16 | 28 | 10 | 124 |     |    |
| F09 | 70        | C38684-S2  | 1         | 76-81 | M20x42 | 340 | 70 | 50 | 131 | 75  | 1.6 | 62.5 | 20        | 110 | 330 | 369 | 67.5 | 85 | 20 | M20 | 35 | 13 | 240 | 175 | 60 |
|     | 65        | C38684-S3  | 2         | 71-81 |        |     |    |    |     |     |     | 58   | 18        |     |     |     |      |    |    | M20 | 35 | 13 | 240 |     |    |
|     | 60        | C38684-S4  | 3         | 66-81 |        |     |    |    |     |     |     | 53   | 18        |     |     |     |      |    |    | M20 | 35 | 13 | 240 |     |    |
| F10 | 80        | B38834-S2  | 1         | 88-96 | M20x42 | 390 | 70 | 60 | 141 | 115 | 1.6 | 71   | 22        | 125 | 370 | 410 | 52   | 95 | 22 | M20 | 35 | 13 | 240 | 200 | 70 |
|     | 75        | B38834-S3  | 2         | 83-96 |        |     |    |    |     |     |     | 67.5 | 20        |     |     |     |      |    |    | M20 | 35 | 13 | 240 |     |    |
|     | 70        | B38834-S4  | 3         | 78-96 |        |     |    |    |     |     |     | 62.5 | 20        |     |     |     |      |    |    | M20 | 35 | 13 | 240 |     |    |

# F SERIES

## SHIPPING SPECIFICATION

### Weight (kg)

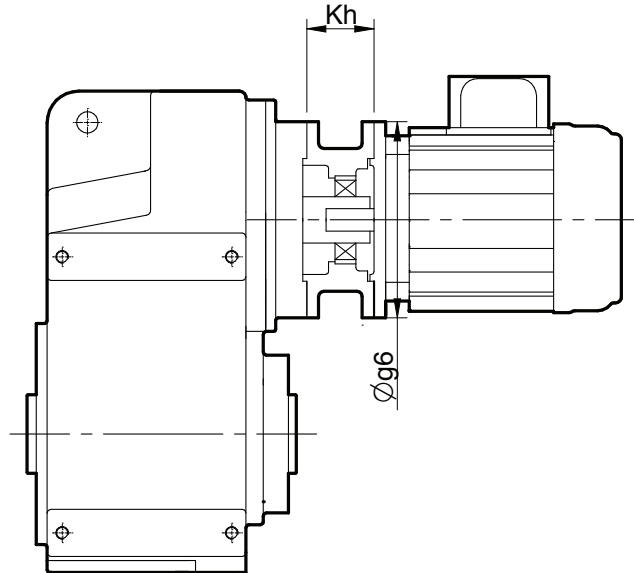
| Unit size & no of reductions |               | F0223 | F0233 | F0323 | F0333 | F0343 | F0423 | F0433 | F0443 | F0523 | F0533 | F0543 | F0623 | F0633 | F0643 | F0723 | F0733 | F0743 | F0823 | F0833 | F0843 | F0923 | F0933 | F0943 | F1023 | F1033 | F1043 |
|------------------------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Reducer version              |               | 13    | 14    | 15    | 16    | 23    | 19    | 21    | 29    | 29    | 32    | 42    | 43    | 45    | 56    | 70    | 72    | 83    | 102   | 109   | 124   | 171   | 180   | 173   | 261   | 270   | 295   |
| Output shaft                 |               | N/A   |       | 0.7   |       |       | 1.1   |       |       | 1.3   |       |       | 1.8   |       |       | 3.5   |       |       | 7.0   |       |       | 11    |       |       | 19    |       |       |
| Output flange                |               | 1.4   |       | 3.0   |       |       | 3.0   |       |       | 3.0   |       |       | 4.0   |       |       | 8.0   |       |       | 13    |       |       | 15    |       |       | 26    |       |       |
| 63                           | Without Motor | 12    | 13    | 14    | 15    | 24    | 19    | 21    | 29    | 28    | 31    | 41    | 42    | 44    | 55    |       | 70    | 80    |       |       | 127   |       |       | 200   |       |       |       |
|                              | With Motor    | 20    | 21    | 22    | 23    | 32    | 27    | 29    | 37    | 36    | 39    | 49    | 50    | 52    | 63    |       | 78    | 88    |       |       | 135   |       |       | 208   |       |       |       |
| 71                           | Without Motor | 11    | 12    | 13    | 14    | 23    | 19    | 21    | 29    | 28    | 31    | 41    | 42    | 44    | 55    |       | 70    | 80    |       |       | 127   |       |       | 200   |       |       |       |
|                              | With Motor    | 22    | 23    | 24    | 25    | 34    | 30    | 32    | 40    | 39    | 42    | 52    | 53    | 55    | 66    |       | 81    | 91    |       |       | 138   |       |       | 211   |       |       |       |
| 80                           | Without Motor | 12    | 13    | 14    | 15    | 24    | 20    | 22    | 30    | 28    | 31    | 41    | 43    | 45    | 56    | 67    | 71    | 80    | 105   | 110   | 127   | 174   | 184   | 200   |       | 273   | 288   |
|                              | With Motor    | 29    | 30    | 31    | 32    | 41    | 37    | 39    | 47    | 45    | 48    | 58    | 60    | 62    | 73    | 84    | 88    | 97    | 122   | 127   | 144   | 191   | 201   | 217   |       | 290   | 305   |
| 90S                          | Without Motor | 12    | 13    | 14    | 15    | 24    | 20    | 22    | 30    | 29    | 32    | 42    | 44    | 46    | 57    | 67    | 72    | 80    | 105   | 110   | 127   | 174   | 184   | 200   |       | 273   | 288   |
|                              | With Motor    | 37    | 38    | 39    | 40    | 49    | 45    | 47    | 55    | 54    | 57    | 67    | 69    | 71    | 82    | 92    | 97    | 105   | 130   | 135   | 152   | 199   | 209   | 225   |       | 298   | 313   |
| 90L                          | Without Motor | 12    | 13    | 14    | 15    | 24    | 20    | 22    | 30    | 29    | 32    | 42    | 44    | 46    | 57    | 67    | 72    | 80    | 105   | 110   | 127   | 174   | 184   | 200   |       | 273   | 288   |
|                              | With Motor    | 39    | 40    | 41    | 42    | 51    | 47    | 49    | 57    | 56    | 59    | 69    | 71    | 73    | 84    | 94    | 99    | 107   | 132   | 137   | 154   | 201   | 211   | 227   |       | 300   | 315   |
| 100L                         | Without Motor | 15    | 16    | 17    | 18    | 27    | 21    | 23    | 31    | 29    | 32    | 42    | 48    | 50    | 61    | 72    | 76    | 85    | 105   | 110   | 127   | 174   | 184   | 200   | 254   | 273   | 288   |
|                              | With Motor    | 53    | 54    | 55    | 56    | 65    | 59    | 61    | 69    | 67    | 70    | 80    | 86    | 88    | 99    | 110   | 114   | 123   | 143   | 148   | 165   | 212   | 222   | 238   | 292   | 311   | 326   |
| 112M                         | Without Motor | 15    | 16    | 17    | 18    | 27    | 21    | 23    | 31    | 29    | 32    | 42    | 48    | 50    | 61    | 72    | 76    | 85    | 105   | 110   | 127   | 174   | 184   | 200   | 254   | 273   | 288   |
|                              | With Motor    | 59    | 60    | 61    | 62    | 71    | 65    | 67    | 75    | 73    | 76    | 86    | 92    | 94    | 105   | 116   | 120   | 129   | 149   | 154   | 171   | 218   | 228   | 244   | 298   | 317   | 332   |
| 132S                         | Without Motor |       |       |       |       |       |       |       |       | 32    |       |       | 50    |       |       | 74    | 78    |       | 105   | 112   | 127   | 174   | 183   | 200   | 254   | 273   | 288   |
|                              | With Motor    |       |       |       |       |       |       |       |       | 100   |       |       | 118   |       |       | 142   | 146   |       | 173   | 180   | 195   | 242   | 251   | 268   | 322   | 341   | 356   |
| 132M                         | Without Motor |       |       |       |       |       |       |       |       | 32    |       |       | 50    |       |       | 74    | 78    |       | 105   | 112   | 127   | 174   | 183   | 200   | 254   | 273   | 288   |
|                              | With Motor    |       |       |       |       |       |       |       |       | 105   |       |       | 123   |       |       | 147   | 151   |       | 178   | 185   | 200   | 247   | 256   | 273   | 327   | 346   | 361   |
| 160M                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 78    |       |       | 115   | 122   |       | 181   | 183   |       | 263   | 280   | 297   |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 198   |       |       | 235   | 242   |       | 301   | 303   |       | 383   | 400   | 417   |
| 160L                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 78    |       |       | 115   | 122   |       | 181   | 183   |       | 263   | 280   | 297   |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 208   |       |       | 245   | 252   |       | 311   | 313   |       | 393   | 410   | 427   |
| 180M                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 181   |       |       | 263   | 280   |       |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 356   |       |       | 438   | 455   |       |
| 180L                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 181   |       |       | 263   | 380   |       |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 366   |       |       | 448   | 565   |       |
| 200L                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 181   |       |       | 263   | 281   |       |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 403   |       |       | 485   | 503   |       |
| 225S                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 195   |       |       | 278   | 296   |       |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 484   |       |       | 567   | 585   |       |
| 225M                         | Without Motor |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 195   |       |       | 278   | 296   |       |
|                              | With Motor    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 517   |       |       | 600   | 618   |       |

All weights exclude lubricant and are for standard shaft mount units, for flange or base mount units add weight of flange / shaft (shown at top of table) to the figures shown above

# F SERIES MOTORISED BACKSTOP MODULE

Motorised backstop modules can be fitted between the gear unit and motor. The backstop device incorporates high quality centrifugal lift off sprags which are wear free above the lift off speed (n min). To ensure correct operation motor speed must exceed lift off speed.

Suitable for ambient temperature -40°C to + 50°C



## IEC B5 Flange

| Size | Lift off Speed<br>(‘n’ min)<br>(rev/min) | Rated Locking<br>Torque (‘T max’)<br>(at motor) (Nm) | øg6 | Kh  |
|------|------------------------------------------|------------------------------------------------------|-----|-----|
| 100  | 670                                      | 170                                                  | 250 | 70  |
| 112  | 670                                      | 170                                                  | 250 | 70  |
| 132  | 620                                      | 940                                                  | 300 | 95  |
| 160  | 620                                      | 940                                                  | 350 | 130 |
| 180  | 620                                      | 940                                                  | 350 | 130 |
| 200  | 550                                      | 1260                                                 | 400 | 130 |

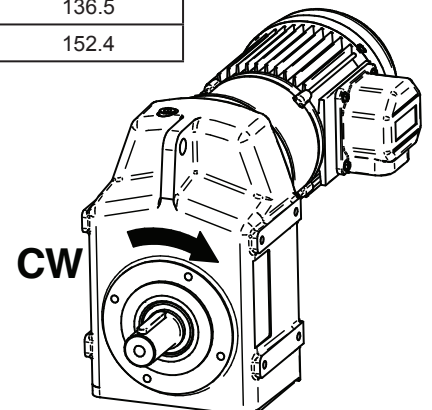
## NEMA C Flange

| Size          | Lift off Speed<br>(‘n’ min)<br>(rev/min) | Rated Locking<br>Torque (‘T max’)<br>(at motor) (Nm) | øg6 | Kh     |
|---------------|------------------------------------------|------------------------------------------------------|-----|--------|
| 182TC / 184TC | 670                                      | 300                                                  | 228 | 95.25  |
| 213TC / 215TC | 670                                      | 300                                                  | 228 | 95.25  |
| 254TC / 256TC | 620                                      | 940                                                  | 228 | 120.65 |
| 284TC / 286TC | 620                                      | 940                                                  | 280 | 136.5  |
| 324TC / 326TC | 550                                      | 1260                                                 | 330 | 152.4  |

When a backstop module is fitted dimension Kh should be added to the overall length of the geared motor assembly.

Rotation of outputshaft must be specified when ordering as viewed from the outputshaft end (as shown in the diagram)

|    |   |               |   |               |
|----|---|---------------|---|---------------|
| CW | - | Free Rotation | - | Clockwise     |
|    |   | Locked        | - | Anticlockwise |
| AC | - | Free Rotation | - | Anticlockwise |
|    |   | Locked        | - | Clockwise     |



## Warning

Removal of motor or backstop will release the drive. Ensure all driven machinery is secure prior to any maintenance work

## IMPORTANT

### Product Safety Information

**General** - The following information is important in ensuring safety. It **must** be brought to the attention of personnel involved in the selection of the equipment, those responsible for the design of the machinery in which it is to be incorporated and those involved in its installation, use and maintenance.

The equipment will operate safely provided it is selected, installed, used and maintained properly. As with any power transmission equipment **proper precautions must** be taken as indicated in the following paragraphs, to ensure safety.

**Potential Hazards** - these are **not** necessarily listed in any order of severity as the degree of danger varies in individual circumstances. It is important therefore that the list is studied in its entirety:-

- 1) Fire/Explosion
  - (a) Oil mists and vapour are generated within gear units. It is therefore dangerous to use naked lights in the proximity of gearbox openings, due to the risk of fire or explosion.
  - (b) In the event of fire or serious overheating (over 300 °C), certain materials (rubber, plastics, etc.) may decompose and produce fumes. Care should be taken to avoid exposure to the fumes, and the remains of burned or overheated plastic/rubber materials should be handled with rubber gloves.
- 2) Guards - Rotating shafts and couplings must be guarded to eliminate the possibility of physical contact or entanglement of clothing. It should be of rigid construction and firmly secured.
- 3) Noise - High speed gearboxes and gearbox driven machinery may produce noise levels which are damaging to the hearing with prolonged exposure. Ear defenders should be provided for personnel in these circumstances. Reference should be made to the Department of Employment Code of Practice for reducing exposure of employed persons to noise.
- 4) Lifting - Where provided (on larger units) only the lifting points or eyebolts must be used for lifting operations (see maintenance manual or general arrangement drawing for lifting point positions). Failure to use the lifting points provided may result in personal injury and/or damage to the product or surrounding equipment. Keep clear of raised equipment.
- 5) Lubricants and Lubrication
  - (a) Prolonged contact with lubricants can be detrimental to the skin. The manufacturer's instruction must be followed when handling lubricants.
  - (b) The lubrication status of the equipment must be checked before commissioning. Read and carry out all instructions on the lubricant plate and in the installation and maintenance literature. Heed all warning tags. Failure to do so could result in mechanical damage and in extreme cases risk of injury to personnel.
- 6) Electrical Equipment - Observe hazard warnings on electrical equipment and isolate power before working on the gearbox or associated equipment, in order to prevent the machinery being started.
- 7) Installation, Maintenance and Storage
  - (a) In the event that equipment is to be held in storage, for a period exceeding 6 months, prior to installation or commissioning, application engineering must be consulted regarding special preservation requirements. Unless otherwise agreed, equipment must be stored in a building protected from extremes of temperature and humidity to prevent deterioration.

The rotating components (gears and shafts) must be turned a few revolutions once a month (to prevent bearings brinelling).
  - (b) External gearbox components may be supplied with preservative materials applied, in the form of a "waxed" tape overwrap or wax film preservative. Gloves should be worn when removing these materials. The former can be removed manually, the latter using white spirit as a solvent.

Preservatives applied to the internal parts of the gear units do not require removal prior to operation.
  - (c) Installation must be performed in accordance with the manufacturer's instructions and be undertaken by suitably qualified personnel.
  - (d) Before working on a gearbox or associated equipment, ensure that the load has been removed from the system to eliminate the possibility of any movement of the machinery and isolate power supply. Where necessary, provide mechanical means to ensure the machinery cannot move or rotate. Ensure removal of such devices after work is complete.
  - (e) Ensure the proper maintenance of gearboxes in operation. Use only the correct tools and approved spare parts for repair and maintenance. Consult the Maintenance Manual before dismantling or performing maintenance work.
- 8) Hot Surfaces and Lubricants
  - (a) During operation, gear units may become sufficiently hot to cause skin burns. Care must be taken to avoid accidental contact.
  - (b) After extended running the lubricant in gear units and lubrication systems may reach temperatures sufficient to cause burns. Allow equipment to cool before servicing or performing adjustments.
- 9) Selection and Design
  - (a) Where gear units provide a backstop facility, ensure that back-up systems are provided if failure of the backstop device would endanger personnel or result in damage.
  - (b) The driving and driven equipment must be correctly selected to ensure that the complete machinery installation will perform satisfactorily, avoiding system critical speeds, system torsional vibration, etc.
  - (c) The equipment must not be operated in an environment or at speeds, powers, torques or with external loads beyond those for which it was designed.
  - (d) As improvements in design are being made continually the contents of this catalogue are not to be regarded as binding in detail, and drawings and capacities are subject to alterations without notice.

The above guidance is based on the current state of knowledge and our best assessment of the potential hazards in the operation of the gear units.

Any further information or clarification required may be obtained by contacting an Application Engineer.

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