

Series M Helical In Line



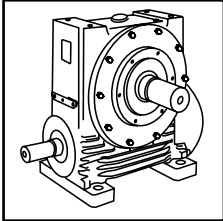
Technical
Up to - 90kW / 11,000 Nm

Gear Motors
CM-1.04GBR0911

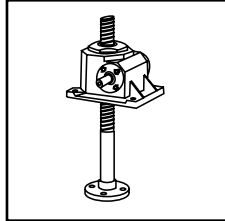
SERIES M

PRODUCTS IN THE RANGE

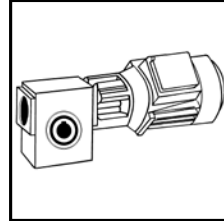
Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are here to make a positive difference to the supply of drive solutions.



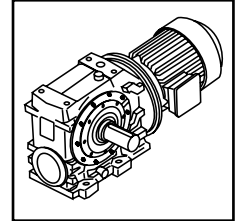
Series A
Worm Gear units
and geared motors
in single & double
reduction types



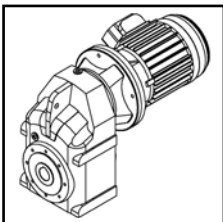
Series BD
Screwjack worm
gear unit



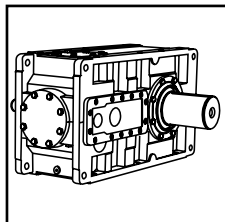
Series BS
Worm gear unit



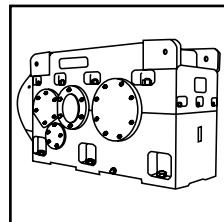
Series C
Right angle drive
helical worm geared
motors & reducers



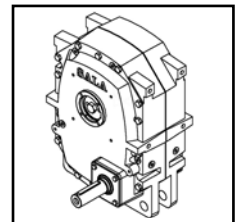
Series F
Parallel angle helical
bevel helical geared
motors & reducers



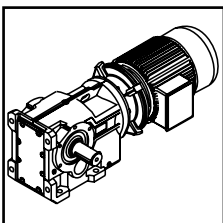
Series G
Helical parallel shaft
& bevel helical right
angle drive gear
units



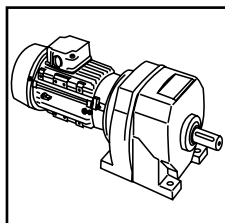
Series H
Large helical parallel
shaft & bevel helical
right angle drive units



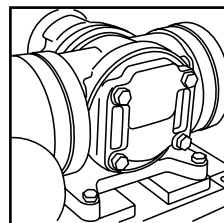
Series J
Shaft mounted
helical speed
reducers



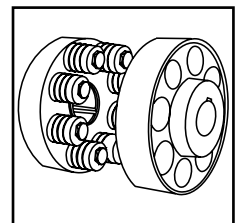
Series K
Right angle helical
bevel helical geared
motors & reducers



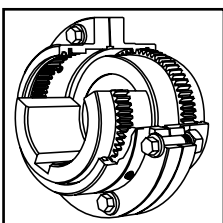
Series M
In-line helical geared
motors & reducers



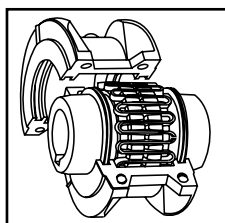
Roloid Gear Pump
Lubrication and fluid
transportation pump



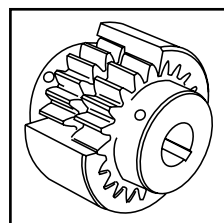
**Series X
Cone Ring**
Pin and bush
elastomer coupling



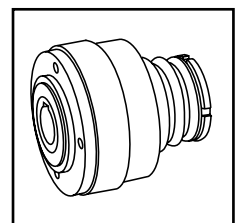
**Series X
Gear**
Torsionally rigid,
high torque coupling



**Series X
Grid**
Double flexing steel
grid coupling



**Series X
Nylon**
Gear coupling with
nylon sleeve



**Series X
Torque Limiter**
Overload protection
device



We offer a wide range of repair services and many years experience of repairing demanding and highly critical transmissions in numerous industries.

We can create custom engineered transmission solutions of any size and configuration.

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

Series M inline geared motors and reducers provide a very efficient and compact drive solution to meet most requirements up to 90kW with maximum output torque capacity of 11000Nm.

The range takes advantage of 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 and geared motors offering high load carrying capacity, high efficiency, quiet running and reliability.

The Range Includes

Twelve sizes of unit with a ratio coverage of 1.4/1 to 70/1 in double reduction and up to 250/1 in triple reduction and 16200/1 in combined units.

Unit Versions Available

- Base Mounted
- B5 (D) Flange Mounted
- B14 (C) Flange Mounting
- Base Mount and B14 (C) Flange Mounting

Unit type M - Motorised with IEC standard motor

Unit type N - Motorised with NEMA standard motor

Unit type H - Motorised with IEC high efficiency motor (IE2 or EPACT)

Unit type E - Motorised with NEMA high efficiency motor (EPACT)

Unit type G - Unit to allow fitting of a standard 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 seal input and output as required.

All units being suitable to fit IEC or NEMA standard motors.

All units are dimensionally interchangeable with other major manufacturers.

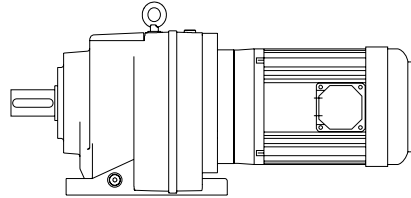
Brake geared motors are available as standard.

Sizes 01, 02, 03, 04, 05, 06 and 07 are all supplied with lubricant.

Sizes 08, 09, 10, 13 and 14 are supplied without lubricant.

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

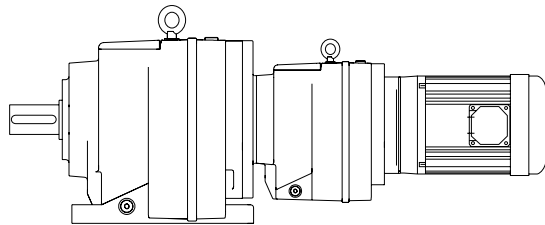
As improvements in design are being made continually this specification is not to be regarded as binding in detail and drawings and capacities are subject to alteration without notice. Certified drawings will be sent on request.



Two stage base mounted motorised

*

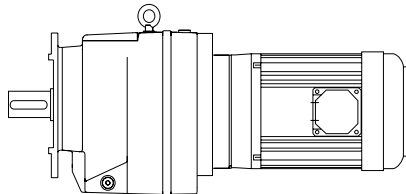
M	0	3	2	2	8	.	0	B	M	C	-	1	A	.	7	5	A	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



Four stage base mounted motorised

*

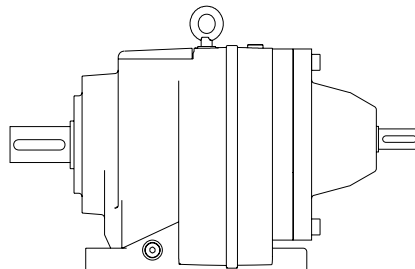
M	0	6	4	2	2	5	0	B	M	C	-	1	A	.	1	8	A	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



Three stage flange mounted motorised

*

M	0	6	3	2	1	2	5	L	M	C	-	1	A	.	7	5	A	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



Two stage base mounted reducer

*

M	0	7	2	2	7	1	.	B	R	C	-	1	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* Typical unit designations

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
M																			
M	0	3	2	2	8	.	0	B	M	C	-	1	A	.	7	5	A	-	-

*

Example

1 - Series M

Range **M**

2, 3 - Size of Unit

0 1 Through **1 4**

4 - No of Reductions

2 Through **5**

5 - Revision Version

2 For Sizes 01 to 08
1 For Sizes 09 to 14

6, 7, 8 - Nominal Overall Ratio

eg **8 . 0**

9 - Unit Version

B - Base Mounted
B5 (D) Flange Mounted
E - B14 (C) Flange Mounting
V - Base and B14 (C) Flange Mounting
(Non - Standard Special Orders Only)

Letter Entry Depends on Flange Diameter

10 - Type of Unit

M - Motorised with IE2 standard motor
N - Motorised with EPACT standard motor
H - Motorised with IEC high efficiency motor (IE3)
E - Motorised with NEMA high efficiency motor (PREMIUM)
G - Unit to allow fitting of IEC motor (non customer motor)
A - Unit to allow fitting of NEMA motor (non customer 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

20 - Additional Gearbox Features

Double Oil Seal, Motorised Backstop Etc

eg **- F**

19 - Additional Motor Features

eg **- A**
For Types Without Motor
Enter **-**

18 - No of Motor Poles

- No motor

	50 Hz	60 Hz
4 Pole (Std) 1500 rpm	A 1800 rpm	B
4 Pole (High) 1500 rpm	K 1800 rpm	L
6 Pole (Std) 1000 rpm	C 1200 rpm	D
6 Pole (High) 1000 rpm	M 1200 rpm	N
2 Pole 3000 rpm	E 3600 rpm	F
8 Pole 750 rpm	G 900 rpm	H
S Dual speed or special motor		

15, 16, 17 - Geared Motor Powers

Motor Power Required

eg **. 7 5**

For reducer and non standard motor types enter **- - -**

13, 14 - Mounting Position

eg **2 B**

12 - Motor Adaptor For Unit Types Column 10 Entries M, N, H, E, G or A

For All Other Types Enter **-**

11 - Output Shaft

C - Standard
N - Inch

* This Page May Be Photocopied Allowing The Customer To Enter Their Order

To access the on line configurator please visit www.swift-gears.com

SERIES M

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 our application engineers.

Table 1. Mechanical Service Factor (Fm)

Prime mover	Duration of service-hrs per day	Load classification-driven machine		
		Uniform mass acceleration factor ≤ 0.2	Moderate mass acceleration factor ≤ 3	Heavy mass acceleration factor ≤ 10
Electric motor, steam turbine or hydraulic motor	Under 3	0.80	1.00	1.50
	3 to 10	1.00	1.25	1.75
	Over 10	1.25	1.50	2.00
Multi-cylinder internal combustion engine	Under 3	1.00	1.25	1.75
	3 to 10	1.25	1.50	2.00
	Over 10	1.50	1.75	2.25
Single cylinder internal combustion engine	Under 3	1.25	1.50	2.00
	3 to 10	1.50	1.75	2.25
	Over 10	1.75	2.00	2.50

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

* 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	≥ 200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

Note: (1) Intermediate values are obtained by linear interpolation

SERIES M

LOAD CLASSIFICATION BY APPLICATIONS

Table 3

U = Uniform load

M = Moderate shock load

H = Heavy shock load

† = Refer to Application Engineering

Driven Machine	type of load	Driven Machine	type of load	Driven Machine	type of load
Cranes		Cranes		Cranes	
main hoists	†	log haul-incline	H	log haul	H
bridge travel	†	log haul-well type	H	presses	M
trolley travel	†	log turning device	H	pulp machine reel	M
		main log conveyor	H	stock chest	M
		off bearing rolls	M	suction roll	M
Crusher		planer feed chains	M	washers and thickeners	M
ore	H	planer floor chains	M	winders	M
stone	H	planer tilting hoist	M		
sugar	H	re-saw merry-go-round conveyor	M	Printing presses	†
		roll cases	H		
Dredges		slab conveyor	H	Pullers	
cable reels	M	small waste conveyor-belt	U	barge haul	H
conveyors	M	small waste conveyor-chain	M		
cutter head drives	H	sorting table	M	Pumps	
jig drives	H	tipple hoist conveyor	M	centrifugal	U
manoeuvring winches	M	tipple hoist drive	M	proportioning	M
pumps	M	transfer conveyors	M	reciprocating	
screen drive	H	transfer rolls	M	single acting; 3 or more cylinders	M
stackers	M	tray drive	M	double acting; 2 or more cylinders	M
utility winches	M	trimmer feed	M	single acting; 1 or 2 cylinders	†
		waste conveyor	M	double acting; single cylinder	†
Dry dock cranes				rotary	
main hoist	†	Machine tools		gear type	U
auxiliary hoist	†	bending roll	M	lobe, vane	U
boom, luffing	†	punch press-gear driven	H		
rotating, swing or slew	†	notching press- belt driven	†	Rubber and plastics industries	
tracking, drive wheels	†	plate planers	H	crackers	H
		tapping machine	H	laboratory equipment	M
Elevators		other machine tools		mixed mills	H
bucket-uniform load	U	main drives	M	refiners	M
bucket-heavy load	M	auxiliary drives	U	rubber calenders	M
bucket-continuous	U			rubber mill-2 on line	M
centrifugal discharge	U	Metal mills		rubber mill-3 on line	M
escalators	U	draw bench carriage and main drive	M	sheeter	†
freight	U	pinch, dryer and scrubber rolls-reversing	†	tire building machines	M
gravity discharge	†	slitters	M	tire and tube press	†
man lifts	†	table conveyors		openers	†
passenger	†	non-reversing		tubers and strainers	M
		group drives	M	warming mills	M
Fans		individual drives	H	Sand muller	M
centrifugal	U	reversing			
cooling towers	†	wire drawing and flattening machine	M	Sewage disposal equipment	
induced draft	†	wire winding machine	M	bar screens	U
forced draft	†			chemical feeders	U
induced draft	M	Mill-rotary type		collectors	U
large, mine, etc	M	ball	H	dewatering screws	M
large, industrial	M	cement kilns	H	scum breakers	M
light, small diameter	U	dryers and coolers	H	slow or rapid mixers	M
		kilns, other than cement	H	thickeners	M
Feeders		pebble rod	H	vacuum filters	M
apron	M	plain	H		
belt	M	wedge bar	H	Screens	
disc	U	tumbling barrels	H	air washing	U
reciprocating	H			rotary-stone or gravel	M
screw	M	Mixers		travelling water intake	U
Food industry		concrete mixers		Slab pushers	M
beef slicer	M	-continuous	M		
cereal cooker	U	concrete mixers	M	Steering gear	†
dough mixer	M	-intermittent	M		
meat grinders	M	constant density	U	Stokers	U
		variable density	M		
Generators-not welding	U	Oil industry		Sugar industry	
		chillers	M	cane knives	M
Hammer mills	H	oil well pumping	†	crushers	M
		paraffin filter press	M	mills	M
Hoists		rotary kilns	M		
heavy duty	H	Paper mills		Textile industry	
medium duty	M	agitators, (mixers)	M	batchers	M
skip hoist	M	barker-auxiliaries-hydraulic	M	calenders	M
		barker-mechanical	H	cards	M
Laundry washers		barking drum	H	dry cans	M
reversing	M	beater and pulper	M	dryers	M
		bleacher	U	dyeing machinery	M
Laundry tumblers	M	calenders	M	knitting machines	†
		calenders-super	H	looms	M
Line shafts		converting machine, except cutters, platers	M	mangles	M
driving processing equipment	M	conveyors	U	nappers	M
light	U	couch	M	pads	M
other line shafts	U	cutters-plates	H	range drives	†
		cylinders	M	slashers	M
Lumber industry		dryers	M	soapers	M
barkers-hydraulic-mechanical	M	felt stretcher	M	spinners	M
burner conveyor	M	felt whipper	H	tenter frames	M
chain saw and drag saw	H	jordans	M	washers	M
chain transfer	H			winders	M
craneway transfer	H				
de-barking drum	H			Windlass	†
edger feed	M				
gang feed	M				
green chain	M				
live rolls	H				
log deck	H				
Agitators					
pure liquids	U				
liquids and solids	M				
liquids-variable density	M				
Blowers					
centrifugal	U				
lobe	M				
vane	U				
Brewing and distilling					
bottling machinery	M				
brew kettles-continuous duty	M				
cookers-continuous duty	M				
mash tubs-continuous duty	M				
scale hopper-frequent starts	M				
Can filling machines	M				
Cane knives	M				
Car dumpers	H				
Car pullers	M				
Clarifiers	U				
Classifiers	M				
Clay working machinery					
brick press	H				
briquette machine	H				
clay working machinery	M				
pug mill	M				
Compressors					
centrifugal	U				
lobe	M				
reciprocating					
multi-cylinder	M				
single cylinder	H				
Conveyors-uniformly loaded or fed					
apron	U				
assembly	U				
belt	U				
bucket	U				
chain	U				
flight	U				
oven	U				
screw	U				
Conveyors-heavy duty not uniformly fed					
apron	M				
assembly	M				
belt	M				
bucket	M				
chain	M				
flight	M				
live roll	†				
oven	†				
reciprocating	H				
screw	M				
shaker	H				

SERIES M

SELECTION PROCEDURE FOR MOTORISED UNITS

EXAMPLE APPLICATION DETAILS

Absorbed power of driven machine = 0.7 kW
 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 = 20°C
 Running time (%) = 100%

1 DETERMINE MECHANICAL SERVICE FACTOR (Fm)

Refer to Load Classification by Application, table 3, page 4

Application = Uniformly loaded belt conveyor

Conveyors-uniformly loaded or fed

apron
assembly
belt
bucket
chain

U = Uniform load

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
Electric motor, steam turbine or hydraulic motor	Under 3	0.80	1.00
	3 to 10	1.00	1.25
	Over 10	1.25	1.50

Therefore mechanical service factor (Fm) = 1.25

If the unit is subject to frequent start/stops Fm must be multiplied by factor Fs (see table 2 page 3)

2 DETERMINE REQUIRED OUTPUT TORQUE AT GEARBOX OUTPUT SHAFT

$$\text{Absorbed output torque} = \frac{\text{Absorbed power} \times 9550}{\text{Gearbox output speed}}$$

$$\frac{0.7 \times 9550}{63} = 106 \text{ Nm}$$

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, page 34

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		N2 R/MIN	i	M2 Nm	Fm	N	UNIT DESIGNATION	Kg	
		Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight of Base Mount Unit	Motor Frame Size
4 POLE		177	8	39	3.47	4000	M 0 2 2 2 8 . 0 _ M _ _ _ . 7 5 A _ _	22.5	80A
		156	9.09	44	3.14	4000	9 . 0		
		127	11.15	54	2.65	4000	1 1 .		
		114	12.37	60	2.45	4000	1 2 .		
		101	14.05	68	2.22	4000	1 4 .		
		89	15.97	78	2.04	3968	1 6 .		
		80	17.58	85	1.86	3878	1 8 .		
		70	20.23	99	1.61	3757	2 0 .		
		64	21.99	107	1.48	4000	2 2 .		
		54	26.4	128	1.24	3847	2 8 .		

4 CHECK OUTPUT TORQUE

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

Required output torque at gearbox output shaft = 106 Nm

0.75 kW		N2 R/MIN	i	M2 Nm	Fm	N	UNIT DESIGNATION	Kg	
		Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight of Base Mount Unit	Motor Frame Size
4 POLE		177	8	39	3.47	4000	M 0 2 2 2 8 . 0 _ M _ _ _ . 7 5 A _ _	22.5	80A
		156	9.09	44	3.14	4000	9 . 0		
		127	11.15	54	2.65	4000	1 1 .		
		114	12.37	60	2.45	4000	1 2 .		
		101	14.05	68	2.22	4000	1 4 .		
		89	15.97	78	2.04	3968	1 6 .		
		80	17.58	85	1.86	3878	1 8 .		
		70	20.23	99	1.61	3757	2 0 .		
		64	21.99	107	1.48	4000	2 2 .		
		54	26.4	128	1.24	3847	2 8 .		

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

Go to point 5

SERIES M

SELECTION PROCEDURE FOR MOTORISED UNITS

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	N2 R/MIN	i	M2 Nm	Fm	N	UNIT DESIGNATION	Kg	
	Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight of Base Mount Unit	Motor Frame Size
	177	8	39	3.47	4000	M 0 2 2 2 8 . 0 _ M _ _ _ . 7 5 A - -	22.5	80A
4 POLE	156	9.09	44	3.14	4000	9 . 0		
	127	11.15	54	2.65	4000	1 1 .		
	114	12.37	60	2.45	4000	1 2 .		
	101	14.05	68	2.22	4000	1 4 .		
	89	15.97	78	2.04	3968	1 6 .		
	80	17.58	85	1.86	3878	1 8 .		
	70	20.23	99	1.61	3757	2 0 .		
	64	21.99	107	1.48	4000	2 2 .		
	54	26.4	128	1.24	3847	2 8 .		

Selected unit's service factor (Fm) = 1.48, therefore unit is acceptable.

Alternatively a M03 unit could be selected which has a greater service factor

0.75 kW	N2 R/MIN	i	M2 Nm	Fm	N	UNIT DESIGNATION	Kg	
	Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight of Base Mount Unit	Motor Frame Size
	156	9.09	44	3.76	4000	M 0 3 2 2 9 . 0 _ M _ _ _ . 7 5 A - -	22.5	80A
4 POLE	127	11.15	54	3.28	4000	1 1 .		
	114	12.37	60	3.07	4000	1 2 .		
	101	14.05	69	2.81	4000	1 4 .		
	89	15.97	77	2.63	3935	1 6 .		
	80	17.58	85	2.42	3844	1 8 .		
	70	20.23	99	2.11	3689	2 0 .		
	64	21.99	107	1.94	3568	2 2 .		
	54	26.4	128	1.63	3045	2 8 .		
	45	31.68	154	1.35	3182	3 2 .		

Selected unit's service factor (Fm) = 1.94, therefore unit is acceptable.

6 CHECK OVERHUNG LOADS

If sprocket, gear, etc is mounted on the outputshaft then refer to Overhung Loads Procedure, page 94, 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	N2 R/MIN	i	M2 Nm	Fm	N	UNIT DESIGNATION	Kg	
	Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight of Base Mount Unit	Motor Frame Size
	177	8	39	3.47	4000	M 0 2 2 2 8 . 0 _ M _ _ _ . 7 5 A - -	22.5	80A
4 POLE	156	9.09	44	3.14	4000	9 . 0		
	127	11.15	54	2.65	4000	1 1 .		
	114	12.37	60	2.45	4000	1 2 .		
	101	14.05	68	2.22	4000	1 4 .		
	89	15.97	78	2.04	3968	1 6 .		
	80	17.58	85	1.86	3878	1 8 .		
	70	20.23	99	1.61	3757	2 0 .		
	64	21.99	107	1.48	4000	2 2 .		
	54	26.4	128	1.24	3847	2 8 .		

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

- Mass acceleration factor > 10
- Ambient temperature is above 40°C

SERIES M

UNIT VERSIONS

UNIT VERSIONS. COLUMN 9 ENTRY

B

- Base Mounted

E

- Flange mount with B14 (C) Flange Mounting (For sizes M01 to M08 only)

Flange Mounted

Letter Entry Depends on Flange Diameter See tables below

Flange
Diameter

Column
9 Entry

120

H

140

J

160

K

200

L

250

N

Flange
Diameter

Column
9 Entry

300

P

350

R

450

F

550

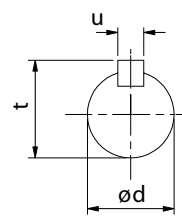
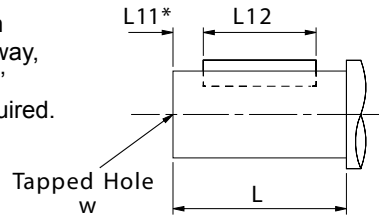
G

Unit Size				Flange Dia	Column 9 Entry
Double	Triple	Quadruple	Quintuple		
M0122	M0132	-	-	120	H
				140	J
				160	K
				200	L
M0222	M0232	-	-	120	H
				140	J
				160	K
				200	L
M0322	M0332	M0342	M0352	120	H
				140	J
				160	K
				200	L
M0422	M0432	M0442	M0452	140	J
				160	K
				200	L
				250	N
M0522	M0532	M0542	M0552	140	J
				160	K
				200	L
				250	N
M0622	M0632	M0642	M0652	200	L
				250	N
				300	P
M0722	M0732	M0742	M0752	200	L
				250	N
				300	P
M0822	M0832	M0842	M0852	300	P
				350	R
M0921	M0931	M0941	M0951	450	F
M1021	M1031	M1041	M1051	450	F
M1321	M1331	M1341	M1351	550	G
M1421	M1431	M1441	M1451	550	G

OUTPUT SHAFT OPTIONS

OUTPUTSHAFT OPTIONS

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



Column 11 Entry

C	Standard
N	Inch

OUTPUTSHAFT OPTIONS - double, triple, quadruple and quintuple reduction

SIZE OF UNIT	TYPE OF OUTPUT SHAFT	COLUMN 11 ENTRY	DIMENSIONS IN MM (Inch Shaft in Inches)						
			ød	L	L11	L12	t	u	w
01	Standard	C	20.015 / 20.002	40	4	32	22.5	6	M6 x 1, 16 deep
	Inch *	N	0.7500"/0.7495"	1.575"	-	1 ⁹ / ₃₂ "	0.829"	³ / ₁₆ "	¹ / ₄ " UNF x 0.63" deep
02	Standard	C	25.015 / 25.002	50	4	40	28	8	M10 x 1.5, 22 deep
	Inch *	N	1.0000"/0.9995"	1.969"	-	1 ⁹ / ₁₆ "	1.106"	¹ / ₄ "	¹ / ₄ " UNF x 0.71" deep
03	Standard	C	25.015 / 25.002	50	4	40	28	8	M10 x 1.5, 22 deep
	Inch *	N	1.0000"/0.9995"	1.969"	-	1 ⁹ / ₁₆ "	1.106"	¹ / ₄ "	¹ / ₄ " UNF x 0.71" deep
04	Standard	C	30.015 / 30.002	60	4	50	33	8	M10 x 1.5, 22 deep
	Inch *	N	1.2500"/1.2495"	2.362"	-	2"	1.359"	¹ / ₄ "	³ / ₈ " UNF x 0.86" deep
05	Standard	C	35.018 / 35.002	70	7	60	38	10	M12 x 1.75, 28 deep
	Inch *	N	1.3750"/1.3745"	2.756"	-	2 ³ / ₈ "	1.507"	⁵ / ₁₆ "	³ / ₈ " UNF x 0.75" deep
06	Standard	C	35.018 / 35.002	70	7	60	38	10	M12 x 1.75, 28 deep
	Inch *	N	1.3750"/1.3745"	2.756"	-	2 ³ / ₈ "	1.507"	⁵ / ₁₆ "	³ / ₈ " UNF x 0.75" deep
07	Standard	C	40.018 / 40.002	80	5	70	43	12	M16 x 2.0, 36 deep
	Inch *	N	1.6250"/1.6240"	3.150"	-	2 ³ / ₈ "	1.784"	³ / ₈ "	⁵ / ₈ " UNF x 1.25" deep
08	Standard	C	50.018 / 50.002	100	10	80	53.5	14	M16 x 2.0, 36 deep
	Inch *	N	2.1250"/2.1240"	3.937"	-	2 ³ / ₄ "	2.338"	¹ / ₂ "	³ / ₄ " UNF x 1.50" deep
09	Standard	C	60.030 / 60.011	120	10	100	64	18	M20 x 2.5, 42 deep
	Inch *	N	2.3750" / 2.3740"	4.72"	-	3 ¹¹ / ₁₆ "	2.65"	0.625"	³ / ₄ " UNF 1.65" deep
10	Standard	C	70.030 / 70.011	140	15	110	74.5	20	M20 x 2.5, 42 deep
	Inch *	N	2.875" / 2.874"	5.51"	-	4 ⁵ / ₈ "	3.20"	0.75"	³ / ₄ " UNF 1.65" deep
13	Standard	C	90.035 / 90.013	170	15	140	95	25	M24 x 3.0, 50 deep
	Inch *	N	3.625" / 3.624"	6.69"	-	5 ¹⁵ / ₁₆ "	4.01"	0.875"	1" UNF 1.97" deep
14	Standard	C	100.035 / 100.013	210	15	180	106	28	M24 x 3.0, 50 deep
	Inch *	N	4.000" / 3.999"	8.27"	-	7 ¹ / ₂ "	4.44"	1.00"	1" UNF 1.97" deep

SERIES M

MOTOR ADAPTERS

DOUBLE REDUCTION UNITS

IEC Flanges B14 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER														
	RATIO COVERAGE	M0122		M0222		M0322		M0422		M0522		M0622		M0722	
		3.6 - 9.0	11. - 56.	3.6 - 14.	16. - 56.	3.6 - 14.	16. - 56.	3.6 - 11.	12. - 56.	3.6 - 11.	12. - 56.	5.0 - 12.	14. - 63.	3.6 - 9.0	11. - 56.
71	COLUMN 12 ENTRY	H	H	-	H	-	H	-	-	-	-	-	-	-	-
80		B	K	B	K	B	K	-	G	-	G	-	G	-	G
90		D	R	D	R	D	R	-	J	-	J	-	J	-	J
100		F	S	F	S	F	S	B	L	B	L	B	L	B	L
112		F	S	F	S	F	S	B	L	B	L	B	L	B	L
132		-	-	-	-	-	-	-	-	-	-	-	-	D	N

 Limited Availability / Non Preferred

IEC Flanges B5 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER																										
	RATIO COVERAGE	M0122		M0222		M0322		M0422		M0522		M0622		M0722		M0822		M0921		M1021	M1321		M1421				
		3.6 - 9.0	11. - 56.	3.6 - 14.	16. - 56.	3.6 - 14.	16. - 56.	3.6 - 11.	12. - 56.	3.6 - 11.	12. - 56.	5.0 - 12.	14. - 63.	3.6 - 9.0	11. - 56.	3.6 - 14.	16. - 56.	1.4 - 14.	16. - 71.	1.4 - 14.	16. - 71.	2.8 - 14.	16. - 45.	50. - 71.	2.8 - 14.	16. - 45.	50. - 71.
63	COLUMN 12 ENTRY	F	F	-	F	-	F	-	V	-	V	-	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71		G	G	-	G	-	G	-	D	-	D	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80		A	J	A	J	A	J	W	F	W	F	W	F	-	F	-	D	-	E	-	-	-	-	-	-	-	-
90		C	Q	C	Q	C	Q	Y	H	Y	H	Y	H	-	H	-	E	-	F	-	-	-	-	-	-	-	-
100		-	-	-	-	-	-	A	K	A	K	A	K	A	K	A	F	-	G	-	E	-	G	N	-	S	W
112		-	-	-	-	-	-	A	K	A	K	A	K	A	K	A	F	-	G	-	E	-	G	N	-	S	W
132		-	-	-	-	-	-	N	P	N	P	N	P	C	M	B	G	-	H	-	F	-	H	P	-	T	X
160		-	-	-	-	-	-	-	-	-	-	-	-	E	-	C	H	A	J	A	G	A	J	Q	A	G	N
180		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	K	B	H	B	K	R	B	H	P
200		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	C	-	C	L	S	C	J	Q
225		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	D	-	D	M	T	D	K	R
250		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	U	-	E	L	-
280		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F	W	-	F	M	-

NEMA Flanges C Face - Column 12 Entry For Unit Types Column 10 Entries A, E and N Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER																										
	RATIO COVERAGE	M0122		M0222		M0322		M0422		M0522		M0622		M0722		M0822		M0921		M1021		M1321		M1421			
		3.6 - 9.0 11. - 56.	3.6 - 14. 16. - 56.	3.6 - 14. 16. - 56.	3.6 - 11. 12. - 56.	3.6 - 11. 12. - 56.	5.0 - 12. 14. - 63.	3.6 - 9.0 11. - 56.	3.6 - 14. 16. - 56.	1.4 - 14. 16. - 71.	1.4 - 14. 16. - 71.	2.8 - 14. 16. - 45. 50. - 71.	2.8 - 14. 16. - 45. 50. - 71.														
56c	COLUMN 12 ENTRY	T	U	T	U	T	U	-	Q	-	Q	-	Q	-	Q	-	M	-	-	-	-	-	-	-	-		
143/145TC		V	W	V	W	V	W	-	R	-	R	-	R	-	R	-	N	-	-	-	-	-	-	-	-		
182/184TC		X	-	X	-	X	-	S	T	S	T	S	T	S	T	J	P	-	S	-	P	-	N	A	-	W	X
213/215TC		-	-	-	-	-	-	U	-	U	-	U	-	U	V	K	Q	-	T	-	Q	-	P	B	-	N	A
254/256TC		-	-	-	-	-	-	-	-	-	-	-	-	W	-	L	U	P	U	L	R	F	Q	C	E	P	B
284/286TC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	V	M	S	G	R	D	F	Q	C
324/326TC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	W	N	T	H	S	E	G	R	D
364/365TC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	J	T	-	H	S	-
404/405TC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	K	U	-	J	T	-

MOTOR ADAPTERS

TRIPLE REDUCTION UNITS

IEC Flanges B14 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER								
	RATIO COVERAGE	M0132	M0232	M0332	M0432	M0532	M0632	M0732	M0832
		56. - 200	56. - 200	56. - 200	56. - 200	56. - 200	63. - 25	56. - 200	56. - 200
71	COLUMN 12 ENTRY	H	H	H	H	H	-	-	
80		K	K	K	K	K	K	G	G
90		R	R	R	R	R	R	J	J
100		S	S	S	S	S	S	L	L
112		S	S	S	S	S	S	L	L
132		-	-	-	-	-	-	-	N

 Limited Availability / Non Preferred

IEC Flanges B5 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER																
		M0132	M0232	M0332	M0432	M0532	M0632	M0732	M0832	M0931	M1031	M1331			M1431		
	RATIO COVERAGE	56. - 200	56. - 200	56. - 200	56. - 200	56. - 200	63. - 25	56. - 200	56. - 200	56. - 200	56. - 200	40. - 50.	56. - 160	180 - 250	40. - 50.	56. - 160	180 - 250
63	COLUMN 12 ENTRY	F	F	F	F	F	F	V	-	-	-	-	-	-	-	-	-
71		G	G	G	G	G	G	D	-	-	-	-	-	-	-	-	-
80		J	J	J	J	J	J	F	F	L	E	-	-	-	-	-	-
90		Q	Q	Q	Q	Q	Q	H	H	M	F	-	-	-	-	-	-
100		-	-	-	-	-	-	K	K	N	G	-	G	N	-	G	N
112		-	-	-	-	-	-	K	K	N	G	-	G	N	-	G	N
132		-	-	-	-	-	-	P	M	-	H	-	H	P	-	H	P
160		-	-	-	-	-	-	-	-	-	J	A	J	Q	A	J	Q
180		-	-	-	-	-	-	-	-	-	K	B	K	R	B	K	R
200		-	-	-	-	-	-	-	-	-	-	C	L	S	C	L	S
225		-	-	-	-	-	-	-	-	-	-	D	M	T	D	M	T
250		-	-	-	-	-	-	-	-	-	-	E	U	-	E	W	-
280		-	-	-	-	-	-	-	-	-	-	F	W	-	F	X	-

NEMA Flanges C Face - Column 12 Entry For Unit Types Column 10 Entries A, E and N Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER																
		M0132	M0232	M0332	M0432	M0532	M0632	M0732	M0832	M0931	M1031	M1331			M1431		
	RATIO COVERAGE	56. - 200	56. - 200	56. - 200	56. - 200	56. - 200	63. - 25	56. - 200	56. - 200	56. - 200	56. - 200	40. - 50.	56. - 160	180 - 250	40. - 50.	56. - 160	180 - 250
56c	COLUMN 12 ENTRY	U	U	U	U	U	U	Q	Q	X	-	-	-	-	-	-	-
143/145TC		W	W	W	W	W	W	R	R	Y	-	-	-	-	-	-	-
182/184TC		-	-	-	-	-	-	T	T	Z	S	-	N	A	-	N	A
213/215TC		-	-	-	-	-	-	-	V	-	T	-	P	B	-	P	B
254/256TC		-	-	-	-	-	-	-	-	-	U	F	Q	C	F	Q	C
284/286TC		-	-	-	-	-	-	-	-	-	V	G	R	D	G	R	D
324/326TC		-	-	-	-	-	-	-	-	-	W	H	S	E	H	S	E
364/365TC		-	-	-	-	-	-	-	-	-	-	J	T	-	J	T	-
404/405TC		-	-	-	-	-	-	-	-	-	-	K	U	-	K	U	-

SERIES M

MOTOR ADAPTERS

QUADRUPLE REDUCTION UNITS

IEC Flanges B14 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER										
	RATIO COVERAGE	M0342	M0442	M0542	M0642	M0742	M0842	M0941	M1041	M1341	M1441
71	COLUMN 12 ENTRY	H	H	H	H	H	-	-	-	-	-
80		K	K	K	K	K	G	G	G	G	G
90		R	R	R	R	R	J	J	J	J	J
100		-	-	-	-	-	L	L	L	L	L
112		-	-	-	-	-	L	L	L	L	L
132		-	-	-	-	-	-	-	N	N	N

IEC Flanges B5 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER										
	RATIO COVERAGE	M0342	M0442	M0542	M0642	M0742	M0842	M0941	M1041	M1341	M1441
63	COLUMN 12 ENTRY	F	F	F	F	F	V	V	-	-	-
71		G	G	G	G	G	D	D	-	-	-
80		J	J	J	J	J	F	F	F	F	F
90		Q	Q	Q	Q	Q	H	H	H	H	H
100		-	-	-	-	-	K	K	K	K	K
112		-	-	-	-	-	K	K	K	K	K
132		-	-	-	-	-	P	P	M	M	M

 Limited Availability / Non Preferred

NEMA Flanges C Face - Column 12 Entry For Unit Types Column 10 Entries A, E and N Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER										
	RATIO COVERAGE	M0342	M0442	M0542	M0642	M0742	M0842	M0941	M1041	M1341	M1441
56c	COLUMN 12 ENTRY	U	U	U	U	U	Q	Q	Q	Q	Q
143/145TC		W	W	W	W	W	R	R	R	R	R
182/184TC		-	-	-	-	-	T	T	T	T	T
213/215TC		-	-	-	-	-	-	-	V	V	V

MOTOR ADAPTERS

QUINTUPLE REDUCTION UNITS

IEC Flanges B14 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER										
	RATIO COVERAGE	M0352	M0452	M0552	M0652	M0752	M0852	M0951	M1051	M1351	M1451
71	COLUMN 12 ENTRY	H	H	H	H	H	H	H	-	-	-
80		K	K	K	K	K	K	K	G	G	G
90		R	R	R	R	R	R	R	J	J	J

IEC Flanges B5 - Column 12 Entry For Unit Types Column 10 Entries G, H and M Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER										
	RATIO COVERAGE	M0352	M0452	M0552	M0652	M0752	M0852	M0951	M1051	M1351	M1451
63	COLUMN 12 ENTRY	F	F	F	F	F	F	F	-	-	-
71		G	G	G	G	G	G	G	-	-	-
80		J	J	J	J	J	J	J	F	F	F
90		Q	Q	Q	Q	Q	Q	Q	H	H	H
100		-	-	-	-	-	-	-	K	K	K
112		-	-	-	-	-	-	-	K	K	K

 Limited Availability / Non Preferred

NEMA Flanges C Face - Column 12 Entry For Unit Types Column 10 Entries A, E and N Only

MOTOR FRAME FLANGE	UNIT SIZE, NUMBER OF REDUCTIONS, REVISION NUMBER										
	RATIO COVERAGE	M0352	M0452	M0552	M0652	M0752	M0852	M0951	M1051	M1351	M1451
56c	COLUMN 12 ENTRY	U	U	U	U	U	U	U	Q	Q	Q
143/145TC		W	W	W	W	W	W	W	R	R	R
182/184TC		-	-	-	-	-	-	-	T	T	T

LUBRICATION

M01,M02,M03,M04,M05,M06,& M07 Units, 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.

M08,M09,M10,M13,& M14 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. If the unit is supplied without lubricant the unit must be filled with the correct lubricant and quantity.

LUBRICATION CHANGE PERIOD

- Sizes 02, 03, 04 and 05 are filled for life.
- All other sizes of Series M will require an oil change:
 - 10,000 hours for mineral oil
 - 20,000 hours for synthetic oil

TEMPERATURE LIMITATIONS

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

TABLE 1 OIL GRADES

LUBRICANT	AMBIENT TEMPERATURE RANGE		
	5°C to 20°C (type E) -30°C to 20°C (type H)	0°C to 35°C	20°C to 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)

TABLE 2 Lubrication Quantity (Litres)

DOUBLE REDUCTION & FINAL STAGE QUADRUPLE OR QUINTUPLE REDUCTION													
Unit Size		M0122	M0222	M0322	M0422	M0522	M0622	M0722	M0822	M0921	M1021	M1321	M1421
MOUNTING POSITION	1	0.5	0.8	0.8	1.5	1.5	2.0	2.6	4.2	10.5	14.0	17.0	24.0
	2	0.8	1.2	1.2	1.8	1.8	2.0	2.9	6.3	12.0	22.0	31.0	49.0
	3	0.6	0.7	0.7	1.6	1.6	1.9	2.7	5.4	12.0	22.0	31.0	49.0
	4	0.8	1.2	1.2	1.8	1.8	1.7	3.0	7.3	12.0	19.0	28.0	41.0
	5	0.7	1.1	1.1	2.0	2.0	2.2	3.2	6.8	16.8	32.0	47.0	72.0
	6	1.0	1.4	1.4	2.6	2.6	2.8	4.7	9.3	16.4	26.0	38.0	65.0

Unit Size		M0132	M0232	M0332	M0432	M0532	M0632	M0732	M0832	M0931	M1031	M1331	M1431
MOUNTING POSITION	1	0.6	0.8	0.8	1.6	1.6	2.1	2.7	4.4	11.5	15.0	18.0	24.5
	2	0.9	1.3	1.3	1.9	1.9	2.1	3.0	6.5	12.0	24.0	33.0	50.0
	3	0.7	0.7	0.7	1.7	1.7	2.0	2.8	5.6	12.0	24.0	33.0	50.0
	4	0.9	1.2	1.2	1.9	1.9	1.8	3.1	7.5	12.0	21.0	30.0	43.0
	5	0.7	1.1	1.1	2.1	2.1	2.3	3.3	6.8	16.8	32.0	47.0	72.0
	6	1.1	1.6	1.6	2.7	2.7	2.9	4.8	9.7	16.5	28.0	40.0	67.0

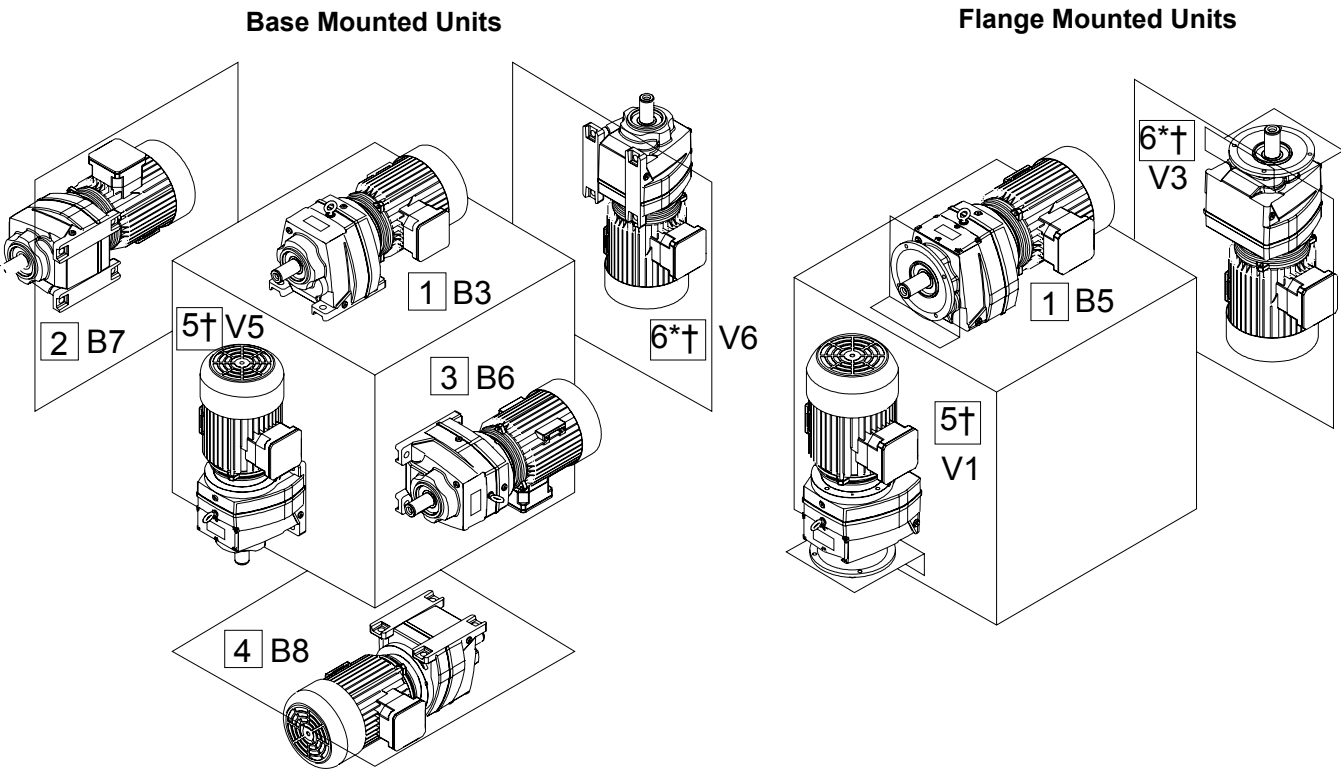
PRIMARY STAGE QUADRUPLE REDUCTION (Quantities obtained from above double and triple sizes indicated)										
Unit Size	M0342	M0442	M0542	M0642	M0742	M0842	M0941	M1041	M1341	M1441
PRIMARY UNIT	M0122	M0322	M0322	M0322	M0322	M0522	M0522	M0722	M0722	M0722
SECONDARY UNIT	M0322	M0422	M0522	M0622	M0722	M0822	M0921	M1021	M1321	M1421

PRIMARY STAGE QUINTUPLE REDUCTION (Quantities obtained from above double and triple sizes indicated)										
Unit Size	M0352	M0452	M0552	M0652	M0752	M0852	M0951	M1051	M1351	M1451
PRIMARY UNIT	M0132	M0332	M0332	M0332	M0332	M0532	M0532	M0732	M0732	M0732
SECONDARY UNIT	M0322	M0422	M0522	M0622	M0722	M0822	M0921	M1021	M1321	M1421

MOUNTING POSITIONS

COLUMN 13 ENTRY

Enter ☐ for units with no oil fill



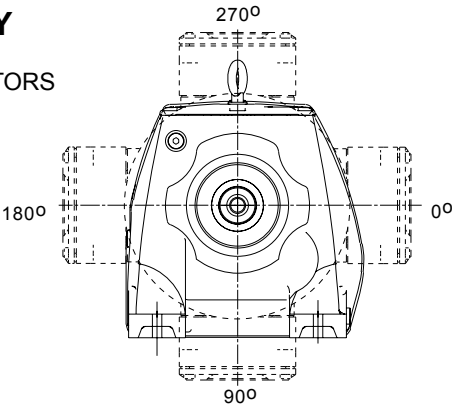
* Mounting Position 6 is not recommended for Geared Motors - Consult Application Engineering
† Gear Units selected for use in mounting positions 5 and 6 should only be used with overall ratios greater or equal to those shown in the table below

Unit Size	Input Speed (rpm)			
	< 1000	< 1500	< 1800	> 1800
M01 - M08	All	All	All	Consult Application Engineering
M09	2.0	4.0	4.5	
M10	4.0	8.0	9.0	
M13	6.3	11.0	14.0	
M14	12.0	18.0	22.0	

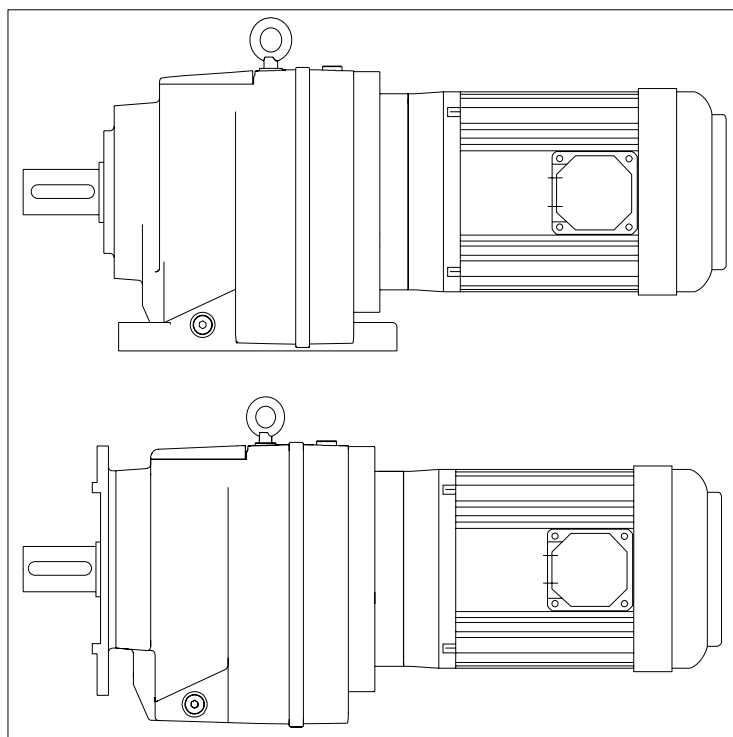
MOUNTING POSITIONS - SHOWN AS MOTORISED - APPLIES ALSO FOR REDUCERS

COLUMN 14 ENTRY

ALL MOTORS



Column 14 Entry	Terminal Box Position
A	0°
B	90°
C	180°
D	270°
-	Reducer or no motor fitted



MOTORISED SERIES M

SERIES M

EXPLANATION & USE OF RATINGS & SERVICE FACTORS

TEFC squirrel cage three phase motors
6 poles = 1800 rpm 400V, 50Hz, S1 IP55, Class F

Output Power Kw	Frame Size	Speed (RPM)	I (A)	Ist/I	Tst/T	J (Kgm2)
0.12	63	1360	0.6	2.6	2.5	0.000
0.18	63	1370	0.72	3	2.2	0.000
0.25	71	1400	0.83	3.5	2.2	0.001
0.37	71	1410	1.12	4	2.2	0.001
0.55	80A	1420	1.45	4	2.2	0.002
0.75	80A	1420	2.9	4.5	2.2	0.002
1.1	90S	1410	2.59	5	2.2	0.003
1.5	90L	1420	3.45	5	2.4	0.004
2.2	100L	1430	4.8	5.5	2.4	0.007
3	100L	1430	6.48	5.5	2.5	0.008
4	100L	1420	8.73	5.5	2.5	0.009
4	112M	1435	8.6	7	2.9	0.015
5.5	112M	1425	11.4	7.1	2.8	0.018
5.5	132S	1450	11.1	7.3	2.2	0.031
7.5	132M	1450	14.8	7.9	2.5	0.038
9	132M	1450	18	8.1	2.8	0.043
11	132M	1450	21	8.3	3	0.048
11	160M	1460	21.5	6.7	2.9	0.067
15	160L	1455	28.5	6.8	2	0.091
18.5	160L	1450	36	6.9	2.9	0.102
18.5	180M	1470	35	6.7	3.1	0.161
22	180L	1470	41	6.8	2.9	0.191
30	180L	1465	56	6.9	3.2	0.225
30	200L	1475	56	6.7	2.6	0.29
37	200L	1475	68	7.8	3.6	0.34
37	225S	1480	68	6.6	2.4	0.37
45	225M	1480	83	6.7	2.7	0.42
55	225M	1480	100	7.3	3.1	0.49
55	250M	1480	98	7.5	2.3	0.72
75	250M	1480	132	7	2.4	0.88
75	280S	1483	137	6.8	2.4	1.15
90	280M	1484	163	7.1	2.7	1.4
110	280M	1483	195	7.5	2.7	1.7

Output Power Kw	Frame Size	Speed (RPM)	I (A)	Ist/I	Tst/T	J (Kgm2)
0.12	63	900	0.6	2.1	2.1	0.000
0.18	71	920	0.75	2.5	2	0.001
0.25	71	920	0.92	3	2	0.001
0.37	80A	920	1.25	3.5	2.1	0.002
0.55	80B	930	1.78	3.5	2.1	0.002
0.75	90S	930	2.36	4	1.9	0.003
1.1	90L	930	3.25	4	1.9	0.004
1.5	100L	940	5.8	4.5	1.9	0.009
2.2	112M	940	5.8	4.5	1.9	0.009
2.2	100L	940	5.4	5.6	2.1	0.015
3	112M	935	7.2	5.5	2.4	0.018
3	132S	960	6.9	6.1	2.4	0.031
4	132M	960	8.7	7.1	2.6	0.038
5.5	132M	955	11.9	6.9	2.8	0.045
7.5	160M	970	15.4	6.7	2	0.089
11	160L	970	23	7.1	2.2	0.107
15	180L	970	31	7	2.1	0.217
18.5	180L	965	37.5	6.2	2	0.237
18.5	200L	985	36	7	2.5	0.370
22	200L	980	43	7.2	2.5	0.430
30	200L	980	56	7.5	3.3	0.490
30	225M	985	56	6.6	2.5	0.640
37	225S	985	69	7.7	3.1	0.750
37	250M	985	69	7.3	2.8	1.160
45	250S	985	82	7.3	2.8	1.490
45	280S	990	85	6.6	2.6	1.650

High Power Motor (Non Standard)

I = Nominal current
Ist/I = Starting current factor
Tst/T = Starting torque factor
J = Motor moment of inertia

High Power Motor (Non Standard)

I = Nominal current
Ist/I = Starting current factor
Tst/T = Starting torque factor
J = Motor moment of inertia

Recalculation Factors

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

Rated voltage at 50Hz and motor wound for	Recalculation factor
220V	1.82
230V	1.74
415V	0,96
500V	0,80
660V	0,61
690V	0,58

60 Hz Operation

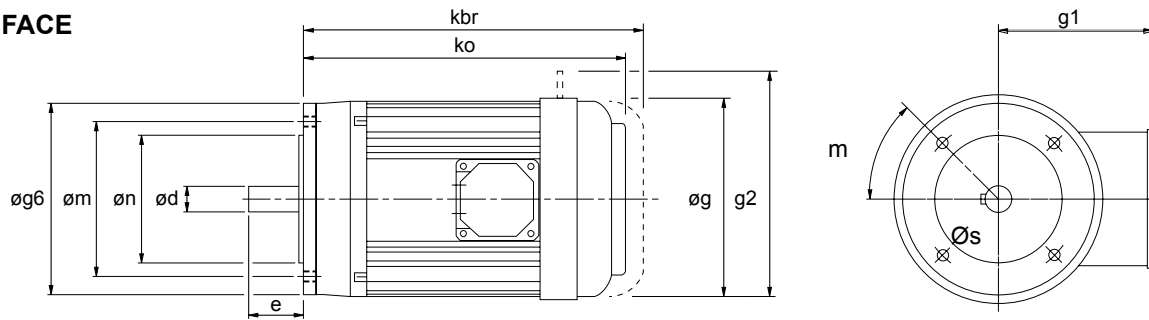
Motors wound for a certain voltage at 50 Hz can be operated at 60 Hz, without any modifications, subject to the following changes in their data

Motor wound for 50 Hz and	Connected to 60 Hz and	Data at 60 Hz in percentage of values at 50 Hz					
		P	n	I	Ist/I	T	Tst/T
		kW	rpm	A		Nm	
400V	380V	100	120	100	80	83	66
	400V	100	120	98	83	83	70
	415V	105	120	100	88	86	78
	440V	110	120	100	95	91	85
	460V	115	120	100	100	96	95
	480V	120	120	100	105	100	100

SERIES M

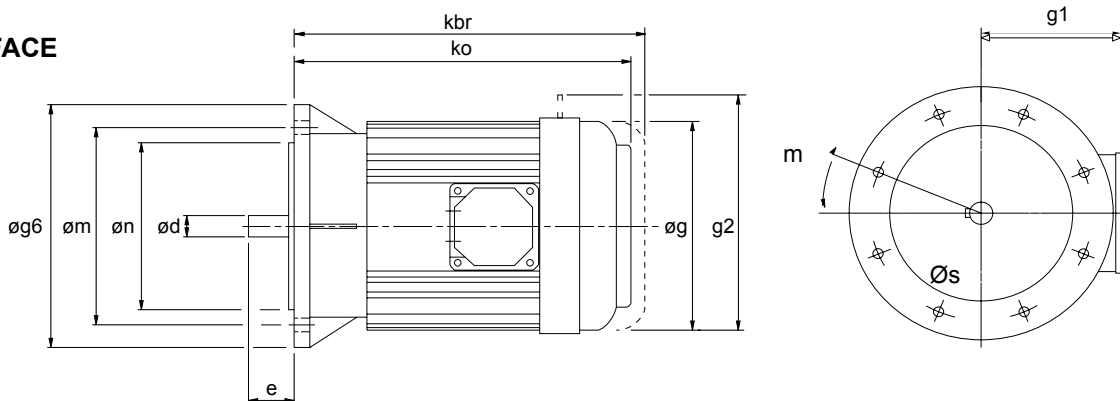
MOTOR DETAILS

B14 'C' FACE



MOTOR FRAME SIZE	Øg6	Øm	Øn	Ød	e	ko*	kbr*	Øg	g1*	m	Øs
71	105	85	70	14	30	221	265	138	102	45°	4 x M6
80A	120	100	80	19	40	239	291	157	125	45°	4 x M6
80B	120	100	80	19	40	248	300	157	125	45°	4 x M6
90S	140	115	95	24	50	260	312	177	133	45°	4 x M8
90L	140	115	95	24	50	275	327	177	133	45°	4 x M8
100L	160	130	110	28	60	310	370	197	144	45°	4 x M8
112M	160	130	110	28	60	325	399	219	155	45°	4 x M8
132S	200	165	130	38	80	392	475	235	172	45°	4 x M10
132M	200	165	130	38	80	412	495	235	172	45°	4 x M10

B5 'D' FACE



MOTOR FRAME SIZE	Øg6	Øm	Øn	Ød	e	ko*	kbr*	Øg	g1*	m	Øs
63	140	115	95	11	23	218	263	122	96	45°	4 x M8
71	160	130	110	14	30	221	265	138	102	45°	4 x M8
80A	200	165	130	19	40	239	291	157	125	45°	4 x M10
80B	200	165	130	19	40	248	300	157	125	45°	4 x M10
90S	200	165	130	24	50	260	312	177	133	45°	4 x M10
90L	200	165	130	24	50	275	327	177	133	45°	4 x M10
100L	250	215	180	28	60	310	370	197	144	45°	4 x M12
112M	250	215	180	28	60	325	399	219	155	45°	4 x M12
132S	300	265	230	38	80	392	475	235	172	45°	4 x M12
132M	300	265	230	38	80	412	495	235	172	45°	4 x M12
160M	350	300	250	42	110	455	538	273	282	45°	4 x M16
160L	350	300	250	42	110	500	583	273	282	45°	4 x M16
180M	350	300	250	48	110	557	-	382	307	22.5°	4 x M16
180L	350	300	250	48	110	595	-	382	307	22.5°	4 x M16
200L	400	350	300	55	110	658	-	420	372	-	4 x M16
225S	450	400	350	60	140	671	-	458	427	-	8 x M16
225M	450	400	350	60	140	696	-	458	427	-	8 x M16
250M	550	500	450	65	140	771	-	510	490	-	8 x M16
280S	550	500	450	75	140	837	-	576	520	-	8 x M16
280M	550	500	450	75	140	888	-	576	520	-	8 x M16

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

SERIES M

ADDITIONAL MOTOR FEATURES

ADDITIONAL MOTOR FEATURES - COLUMN 19 ENTRY

Column 19 Entry	Brake Motor	Hand Release on Brake	Forced Ventilation/ Constant Blower (TECB)	Thermistors	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

SERIES M

ADDITIONAL GEARBOX FEATURES

ADDITIONAL GEARBOX FEATURES - COLUMN 20 ENTRY

Column 20 Entry	Double Outputshaft Oil Seals *	Oil Level Glass ** M07 - M14	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 following additional gearbox features

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

* Double Oil Seals for output shafts sizes M08 to M14 only

** Oil level glass is NOT AVAILABLE for M01 to M06 units

*** IEC frame sizes 100 - 200 NEMA frame sizes 182TC - 326TC

SERIES M

SELECTION TABLES

GEARED MOTORS

0.12 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
363	3.75	3	19.46	1690	M 0 1 2 2 3 . 6 _ M _ _ _ . 1 2 A - -	13.5	63
268	5.07	4	16.34	1790	5 . 0		
236	5.76	4	15.24	1840	5 . 6		
208	6.53	5	14.07	1880	6 . 3		
163	8.35	6	11.65	1900	8 . 0		
151	9	7	10.94	1900	9 . 0		
120	11.36	9	9.07	1900	1 1 .		
106	12.88	10	8.29	1900	1 2 .		
92	14.71	11	7.48	1900	1 4 .		
83	16.37	13	6.75	1900	1 6 .		
75	18.05	14	6.11	1900	1 8 .		
68	19.86	16	5.56	1900	2 0 .		
58	23.27	18	4.74	1900	2 2 .		
49	27.92	22	3.96	1900	2 8 .		
42	32.54	26	3.41	1900	3 2 .		
38	36.16	29	3.07	1900	3 6 .		
31	43.54	35	2.38	1900	4 5 .		
27	49.91	40	1.78	1900	5 0 .		
24	56.72	45	1.54	1900	5 6 .		
23	58.46	46	1.93	1900	M 0 1 3 2 5 6 . _ M _ _ _ . 1 2 A - -	14.5	63
21	64.45	51	1.75	1900	6 3 .		
19	70.93	56	1.59	1900	7 1 .		
16	83.1	66	1.36	1900	8 0 .		
14	99.7	79	1.13	1830	1 0 0		
12	116.22	92	0.97	1650	1 1 2		
11	129.13	102	0.88	1360	1 2 5		
25	53.54	43	3.69	4000	M 0 2 2 2 5 6 . _ M _ _ _ . 1 2 A - -	16.5	63
24	57.03	45	3.5	4000	M 0 2 3 2 5 6 . _ M _ _ _ . 1 2 A - -	17.5	63
22	62.87	50	3.17	4000	6 3 .		
20	69.19	55	2.88	4000	7 1 .		
17	81.07	64	2.46	4000	8 0 .		
14	97.26	77	2.06	4000	1 0 0		
12	113.37	90	1.77	4000	1 1 2		
11	125.97	100	1.59	4000	1 2 5		
9	151.69	121	1.32	4000	1 6 0		
7.8	173.87	139	1.15	4000	1 8 0		
6.9	197.6	157	1.02	4000	2 0 0		
20	69.19	55	3.77	4000	M 0 3 3 2 7 1 . _ M _ _ _ . 1 2 A - -	17.5	63
17	81.07	64	3.22	4000	8 0 .		
14	97.26	77	2.69	4000	1 0 0		
12	113.37	90	2.31	4000	1 1 2		
11	125.97	100	2.08	4000	1 2 5		
9	151.69	121	1.72	4000	1 6 0		
7.8	173.87	138	1.51	4000	1 8 0		
6.9	197.6	157	1.33	4000	2 0 0		
5.8	234.96	182	1.15	3026	M 0 3 4 2 2 2 5 _ M _ _ _ . 1 2 A - -	26.5	63
5.2	261.37	202	1.03	3026	2 5 0		
4.7	287.83	222	0.94	3026	2 8 0		
4.3	317.33	245	0.85	3026	3 0 0		
12	115.82	92	3.64	7200	M 0 4 3 2 1 1 2 _ M _ _ _ . 1 2 A - -	26.5	63
10	130.5	104	3.24	7200	1 2 5		
9	151.71	121	2.78	7200	1 6 0		
7.9	172.19	137	2.45	7200	1 8 0		
6.9	195.75	156	2.16	7200	2 0 0		
9	151.71	121	3.7	7200	M 0 5 3 2 1 6 0 _ M _ _ _ . 1 2 A - -	27.5	63
7.9	172.19	138	3.26	7200	1 8 0		
6.9	195.75	156	2.87	7200	2 0 0		
6.4	213.18	171	3.66	7200	M 0 6 3 2 2 0 0 _ M _ _ . 1 2 A - -	32.5	63

0.12 kW

6 POLE

NOTE

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

232	3.75	4	14.27	1810	M 0 1 2 2 3 . 6 _ M _ _ _ . 1 2 C - -	13.5	63
172	5.07	6	11.71	1900	5 . 0		
151	5.76	7	10.65	1900	5 . 6		
133	6.53	8	9.59	1900	6 . 3		
104	8.35	10	8.01	1900	8 . 0		
97	9	11	7.54	1900	9 . 0		
77	11.36	14	6.19	1900	1 1 .		
68	12.88	16	5.47	1900	1 2 .		
59	14.71	18	4.79	1900	1 4 .		
53	16.37	20	4.31	1900	1 6 .		
48	18.05	22	3.9	1900	1 8 .		
44	19.86	25	3.55	1900	2 0 .		
37	23.27	29	3.04	1900	2 2 .		
31	27.92	35	2.54	1900	2 8 .		
27	32.54	41	2.17	1900	3 2 .		
24	36.16	45	1.96	1900	3 6 .		
20	43.54	55	1.52	1900	4 5 .		
17	49.91	63	1.14	1900	5 0 .		
15	56.72	71	0.99	1900	5 6 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

0.12 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
15	58.46	72	1.23	1900	M 0 1 3 2 5 6 . _ M _ _ _ _ . 1 2 C - -	14.5	63
13	64.45	80	1.12	1900	6 3 .		
12	70.93	88	1.01	1900	7 1 .		
10	83.1	103	0.87	1360	8 0 .		
21	41.49	52	3.04	4000	M 0 2 2 2 4 5 . _ M _ _ _ _ . 1 2 C - -	16.5	63
18	47.09	59	2.68	4000	5 0 .		
16	53.54	67	2.36	4000	5 6 .		
15	57.03	71	2.24	4000	M 0 2 3 2 5 6 . _ M _ _ _ _ . 1 2 C - -	17.5	63
14	62.87	79	2.02	4000	6 3 .		
13	69.19	86	1.84	4000	7 1 .		
11	81.07	101	1.57	4000	8 0 .		
8.9	97.26	121	1.31	4000	1 0 0		
7.7	113.37	142	1.13	4000	1 1 2		
6.9	125.97	156	1.02	4000	1 2 5		
5.7	151.69	189	0.85	3200	1 6 0		
13	69.19	86	2.41	4000	M 0 3 3 2 7 1 . _ M _ _ _ _ . 1 2 C - -	17.5	63
11	81.07	101	2.05	4000	8 0 .		
8.9	97.26	121	1.71	4000	1 0 0		
7.7	113.37	141	1.47	4000	1 1 2		
6.9	125.97	157	1.33	4000	1 2 5		
5.7	151.69	189	1.1	3500	1 6 0		
5	173.87	217	0.96	3000	1 8 0		
4.4	197.6	247	0.85	2400	2 0 0		
7.5	115.82	145	2.33	7200	M 0 4 3 2 1 1 2 _ M _ _ _ _ . 1 2 C - -	26.5	63
6.7	130.5	163	2.07	7200	1 2 5		
5.7	151.71	190	1.77	7200	1 6 0		
5.1	172.19	215	1.57	7200	1 8 0		
4.4	195.75	244	1.38	7200	2 0 0		
5.7	151.71	190	2.36	7200	M 0 5 3 2 1 6 0 _ M _ _ _ _ . 1 2 C - -	27.5	63
5.1	172.19	215	2.08	7200	1 8 0		
4.4	195.75	245	1.84	7200	2 0 0		
4.1	213.18	267	2.34	7200	M 0 6 3 2 2 0 0 _ M _ _ _ _ . 1 2 C - -	32.5	63
385	3.75	4	13.07	1681	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 1 8 A - -	13.5	63
270	5.07	6	10.97	1778	5 . 0		
238	5.76	6	10.24	1826	5 . 6		
210	6.53	7	9.45	1856	6 . 3		
164	8.35	10	7.82	1873	8 . 0		
152	9	10	7.35	1872	9 . 0		
121	11.36	13	6.09	1874	1 1 .		
106	12.88	15	5.56	1874	1 2 .		
93	14.71	17	5.02	1854	1 4 .		
84	16.37	19	4.53	1890	1 6 .		
76	18.05	21	4.1	1877	1 8 .		
69	19.86	24	3.73	1852	2 0 .		
59	23.27	28	3.19	1881	2 2 .		
49	27.92	33	2.66	1819	2 8 .		
42	32.54	39	2.29	1878	3 2 .		
38	36.16	43	2.06	1854	3 6 .		
31	43.54	52	1.6	1890	4 5 .		
27	49.91	60	1.2	1849	5 0 .		
24	56.72	68	1.03	1900	5 6 .		
23	58.46	69	1.3	1724	M 0 1 3 2 5 6 . _ M _ _ _ _ . 1 8 A - -	14.5	63
21	64.45	76	1.18	1590	6 3 .		
19	70.93	84	1.07	1780	7 1 .		
16	83.1	98	0.91	1450	8 0 .		
38	35.69	43	3.72	4000	M 0 2 2 2 3 6 . _ M _ _ _ _ . 1 8 A - -	16.5	63
33	41.49	50	3.19	4000	4 5 .		
29	47.09	56	2.81	4000	5 0 .		
26	53.54	64	2.48	3956	5 6 .		
24	57.03	68	2.35	4000	M 0 2 3 2 5 6 . _ M _ _ _ _ . 1 8 A - -	17.5	63
22	62.87	75	2.13	4000	6 3 .		
20	69.19	82	1.94	4000	7 1 .		
17	81.07	96	1.65	3913	8 0 .		
14	97.26	115	1.38	4000	1 0 0		
12	113.37	134	1.19	3976	1 1 2		
11	125.97	149	1.07	4000	1 2 5		
9	151.69	180	0.89	4000	1 6 0		
33	41.49	50	3.96	4000	M 0 3 2 2 4 5 . _ M _ _ _ _ . 1 8 A - -	16.5	63
29	47.09	56	3.57	4000	5 0 .		
26	53.54	64	3.19	4000	5 6 .		
24	57.03	68	3.07	4000	M 0 3 3 2 5 6 . _ M _ _ _ _ . 1 8 A - -	17.5	63
22	62.87	75	2.78	4000	6 3 .		
20	69.19	82	2.53	3743	7 1 .		
17	81.07	96	2.16	3913	8 0 .		
14	97.26	115	1.81	3654	1 0 0		
12	113.37	134	1.55	3976	1 1 2		
11	125.97	149	1.4	3718	1 2 5		
9	151.69	180	1.15	3173	1 6 0		
7.9	173.87	206	1.01	3420	1 8 0		
6.9	197.6	234	0.89	2660	2 0 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.18 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
19	73.95	88	3.82	7200	M 0 4 3 2 7 1 . _ M _ _ _ . 1 8 A - -	26.5	63
17	80.4	96	3.51	7200	8 0 .		
14	96.52	115	2.93	7200	1 0 0		
12	115.82	138	2.45	7102	1 1 2		
10	130.5	155	2.17	7200	1 2 5		
9	151.71	180	1.87	7178	1 6 0		
8	172.19	205	1.65	7034	1 8 0		
7	195.75	233	1.45	7200	2 0 0		
5.9	232.81	269	1.25	7125	M 0 4 4 2 2 2 5 _ M _ _ _ . 1 8 A - -	38.5	63
5.3	260.47	300	1.12	7125	2 5 0		
4.9	277.62	320	1.06	7125	2 8 0		
4.5	305.72	353	0.96	7125	3 0 0		
3.8	362.32	416	0.81	7125	3 6 0		
14	96.52	115	3.89	7200	M 0 5 3 2 1 0 0 _ M _ _ _ . 1 8 A - -	27.5	63
12	115.82	138	3.25	7200	1 1 2		
10	130.5	155	2.89	7200	1 2 5		
9	151.71	181	2.48	6660	1 6 0		
8	172.19	205	2.19	6902	1 8 0		
7	195.75	233	1.93	6628	2 0 0		
5.9	232.81	271	1.66	4809	M 0 5 4 2 2 2 5 _ M _ _ _ . 1 8 A - -	40.5	63
5.3	260.47	302	1.49	4809	2 5 0		
4.9	277.62	322	1.4	4809	2 8 0		
4.5	305.72	355	1.27	4809	3 0 0		
3.8	362.32	419	1.07	4809	3 6 0		
3.3	416.75	482	0.93	4809	4 0 0		
3.1	444.96	514	0.87	4809	4 5 0		
2.8	483.76	559	0.8	4809	5 0 0		
8.5	161.57	192	3.24	7200	M 0 6 3 2 1 6 0 _ M _ _ _ . 1 8 A - -	32.5	63
7.3	187.83	224	2.79	7200	1 8 0		
6.4	213.18	254	2.46	7200	2 0 0		
6.4	215.23	252	2.48	7200	M 0 6 4 2 2 2 5 _ M _ _ _ . 1 8 A - -	45.5	63
5.8	237.02	278	2.25	7200	2 5 0		
5	272.91	318	1.66	7200	2 8 0		
4.4	313.91	366	1.44	7200	3 0 0		
3.8	365.1	426	1.4	7200	3 6 0		
3.5	396.93	463	1.29	7200	4 0 0		
3.1	444.1	516	1.21	7200	4 5 0		
2.6	533.13	620	1.01	7200	5 0 0		
2.4	568.23	661	0.95	7200	6 5 0		
6	229	268	3.24	4677	M 0 7 4 2 2 2 5 _ M _ _ _ . 1 8 A - -	52.5	63
5.3	259.68	303	2.86	4676	2 5 0		
4.8	286.42	334	2.59	4676	2 8 0		
4.3	315.41	368	2.35	4676	3 0 0		
3.8	361.21	421	2.06	4675	3 6 0		
3.3	415.49	484	1.79	4675	4 0 0		
2.9	469.77	546	1.59	4675	4 5 0		
2.7	510.72	594	1.46	4675	5 0 0		
2.3	592.12	687	1.26	4675	6 5 0		
1.9	710.84	824	1.05	4675	7 3 0		
1.6	847.84	979	0.89	4674	8 6 0		

0.18 kW

6 POLE

240	3.75	6	9.84	1791	M 0 1 2 2 3 . 6 _ M _ _ _ . 1 8 C - -	14.5	71
178	5.07	9	8.07	1874	5 . 0		
156	5.76	10	7.34	1874	5 . 6		
138	6.53	12	6.61	1874	6 . 3		
108	8.35	15	5.52	1874	8 . 0		
100	9	16	5.2	1868	9 . 0		
79	11.36	21	4.27	1822	1 1 .		
70	12.88	23	3.77	1792	1 2 .		
61	14.71	27	3.3	1783	1 4 .		
55	16.37	30	2.97	1786	1 6 .		
50	18.05	33	2.69	1750	1 8 .		
45	19.86	36	2.45	1719	2 0 .		
39	23.27	42	2.09	1712	2 2 .		
32	27.92	51	1.75	1634	2 8 .		
28	32.54	59	1.5	1631	3 2 .		
25	36.16	66	1.35	1540	3 6 .		
21	43.54	80	1.05	1496	4 5 .		
15	58.46	105	0.85	730	M 0 1 3 2 5 6 . _ M _ _ _ . 1 8 C - -	15.5	71
34	26.4	48	3.29	4000	M 0 2 2 2 2 8 . _ M _ _ _ . 1 8 C - -	18.5	71
28	31.68	58	2.74	4000	3 2 .		
25	35.69	65	2.44	4000	3 6 .		
22	41.49	76	2.09	3824	4 5 .		
19	47.09	86	1.85	3706	5 0 .		
17	53.54	98	1.63	3571	5 6 .		
16	57.03	103	1.54	3829	M 0 2 3 2 5 6 . _ M _ _ _ . 1 8 C - -	19.5	71
14	62.87	114	1.4	3685	6 3 .		
13	69.19	125	1.27	3532	7 1 .		
11	81.07	147	1.08	3243	8 0 .		
9.3	97.26	176	0.91	3270	1 0 0		
28	31.68	58	3.58	4000	M 0 3 2 2 3 2 . _ M _ _ _ . 1 8 C - -	18.5	71
25	35.69	65	3.19	4000	3 6 .		
22	41.49	76	2.69	4000	4 5 .		
19	47.09	86	2.41	4000	5 0 .		
17	53.54	98	2.09	4000	5 6 .		
16	57.03	103	2.02	4000	M 0 3 3 2 5 6 . _ M _ _ _ . 1 8 C - -	19.5	71
14	62.87	114	1.82	4000	6 3 .		
13	69.19	125	1.66	3441	7 1 .		
11	81.07	147	1.42	3243	8 0 .		
9.3	97.26	176	1.18	3039	1 0 0		
7.9	113.37	205	1.02	2493	1 1 2		
7.1	125.97	228	0.92	1766	1 2 5		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.18 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
15	58.38	106	3.17	7200	M 0 4 3 2 5 6 . _ M _ _ _ _ . 1 8 C - -	28.5	71
14	64.29	117	2.88	7200	6 3 .		
12	73.95	134	2.51	7200	7 1 .		
11	80.4	146	2.31	7200	8 0 .		
9.3	96.52	175	1.92	7200	1 0 0		
7.8	115.82	210	1.6	6442	1 1 2		
6.9	130.5	236	1.43	6712	1 2 5		
5.9	151.71	276	1.22	6295	1 6 0		
5.2	172.19	312	1.08	5901	1 8 0		
4.6	195.75	354	0.95	6203	2 0 0		
3.9	232.81	412	0.82	7125	M 0 4 4 2 2 2 5 _ M _ _ _ _ . 1 8 C - -	40.5	71
12	73.95	135	3.33	7200	M 0 5 3 2 7 1 . _ M _ _ _ _ . 1 8 C - -	28.5	71
11	80.4	146	3.06	7200	8 0 .		
9.3	96.52	175	2.56	7200	1 0 0		
7.8	115.82	210	2.14	7200	1 1 2		
6.9	130.5	237	1.9	7200	1 2 5		
5.9	151.71	276	1.63	6195	1 6 0		
5.2	172.19	313	1.44	5820	1 8 0		
4.6	195.75	355	1.27	5274	2 0 0		
3.9	232.81	413	1.09	4809	M 0 5 4 2 2 2 5 _ M _ _ _ _ . 1 8 C - -	41.5	71
3.5	260.47	461	0.97	4809	2 5 0		
3.2	277.62	492	0.91	4809	2 8 0		
2.9	305.72	542	0.83	4809	3 0 0		
7.5	119.5	218	2.87	7200	M 0 6 3 2 1 1 2 _ M _ _ _ _ . 1 8 C - -	33.5	71
6.3	143.39	261	2.4	7200	1 2 5		
5.6	161.57	293	2.13	7200	1 6 0		
4.8	187.83	342	1.83	7200	1 8 0		
4.2	213.18	387	1.61	6215	2 0 0		
4.2	215.23	384	1.62	7200	M 0 6 4 2 2 2 5 _ M _ _ _ _ . 1 8 C - -	47.5	71
3.8	237.02	423	1.47	7200	2 5 0		
3.3	272.91	486	1.09	7200	2 8 0		
2.9	313.91	558	0.95	7200	3 0 0		
2.5	365.1	649	0.92	7200	3 6 0		
2.3	396.93	706	0.85	7200	4 0 0		
3.9	229	408	2.12	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 1 8 C - -	54.5	71
3.5	259.68	462	1.88	4676	2 5 0		
3.1	286.42	510	1.7	4676	2 8 0		
2.9	315.41	562	1.54	4676	3 0 0		
2.5	361.21	642	1.35	4675	3 6 0		
2.2	415.49	738	1.17	4675	4 0 0		
1.9	469.77	833	1.04	4675	4 5 0		
1.8	510.72	906	0.96	4675	5 0 0		
1.5	592.12	1048	0.83	4675	6 5 0		

0.25 kW

4 POLE

373	3.75	6	9.62	1670	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 2 5 A - -	14.5	71
276	5.07	8	8.07	1764	5 . 0		
243	5.76	9	7.53	1810	5 . 6		
214	6.53	10	6.95	1829	6 . 3		
168	8.35	13	5.75	1841	8 . 0		
156	9	14	5.41	1840	9 . 0		
123	11.36	18	4.48	1845	1 1 .		
109	12.88	21	4.09	1845	1 2 .		
95	14.71	24	3.7	1800	1 4 .		
86	16.37	26	3.33	1879	1 6 .		
78	18.05	29	3.02	1850	1 8 .		
70	19.86	32	2.75	1796	2 0 .		
60	23.27	38	2.34	1860	2 2 .		
50	27.92	45	1.96	1724	2 8 .		
43	32.54	53	1.68	1853	3 2 .		
39	36.16	59	1.52	1801	3 6 .		
32	43.54	71	1.17	1880	4 5 .		
28	49.91	81	0.88	1790	5 0 .		
24	58.46	94	0.95	1520	M 0 1 3 2 5 6 . _ M _ _ _ _ . 2 5 A - -	15.5	71
22	64.45	103	0.87	1230	6 3 .		
53	26.4	43	3.68	4000	M 0 2 2 2 2 8 . _ M _ _ _ _ . 2 5 A - -	18.5	71
44	31.68	52	3.07	4000	3 2 .		
39	35.69	58	2.73	4000	3 6 .		
34	41.49	68	2.35	4000	4 5 .		
30	47.09	77	2.07	4000	5 0 .		
26	53.54	87	1.82	3906	5 6 .		
25	57.03	92	1.73	4000	M 0 2 3 2 5 6 . _ M _ _ _ _ . 2 5 A - -	19.5	71
22	62.87	102	1.57	4000	6 3 .		
20	69.19	112	1.43	4000	7 1 .		
17	81.07	131	1.22	3812	8 0 .		
14	97.26	157	1.02	4000	1 0 0		
12	113.37	183	0.87	3950	1 1 2		
39	35.69	58	3.57	3837	M 0 3 2 2 3 6 . _ M _ _ _ _ . 2 5 A - -	18.5	71
34	41.49	68	2.91	3921	4 5 .		
30	47.09	77	2.63	3828	5 0 .		
26	53.54	87	2.34	3941	5 6 .		
25	57.03	92	2.26	3884	M 0 3 3 2 5 6 . _ M _ _ _ _ . 2 5 A - -	19.5	71
22	62.87	102	2.05	3772	6 3 .		
20	69.19	112	1.86	3443	7 1 .		
17	81.07	131	1.59	3812	8 0 .		
14	97.26	157	1.33	3251	1 0 0		
12	113.37	183	1.14	3950	1 1 2		
11	125.97	203	1.03	3390	1 2 5		
9.2	151.69	245	0.85	2209	1 6 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.25 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
24	58.38	94	3.56	7200	M 0 4 3 2 5 6 . _ M _ _ _ _ . 2 5 A - -	28.5	71
22	64.29	104	3.23	7200	6 3 .		
19	73.95	120	2.81	7191	7 1 .		
17	80.4	130	2.58	7171	8 0 .		
15	96.52	156	2.16	7200	1 0 0		
12	115.82	187	1.8	6988	1 1 2		
11	130.5	211	1.6	7200	1 2 5		
9.2	151.71	245	1.37	7153	1 6 0		
8.1	172.19	278	1.21	6841	1 8 0		
7.2	195.75	317	1.07	7200	2 0 0		
6	232.81	366	0.92	7125	M 0 4 4 2 2 2 5 _ M _ _ _ _ . 2 5 A - -	40.5	71
5.4	260.47	408	0.83	7125	2 5 0		
19	73.95	120	3.73	7200	M 0 5 3 2 7 1 . _ M _ _ _ _ . 2 5 A - -	28.5	71
17	80.4	131	3.43	7200	8 0 .		
15	96.52	157	2.87	6902	1 0 0		
12	115.82	188	2.39	6965	1 1 2		
11	130.5	211	2.12	6764	1 2 5		
9.2	151.71	246	1.83	6030	1 6 0		
8.1	172.19	279	1.61	6555	1 8 0		
7.2	195.75	317	1.42	5962	2 0 0		
6	232.81	368	1.22	4809	M 0 5 4 2 2 2 5 _ M _ _ _ _ . 2 5 A - -	41.5	71
5.4	260.47	411	1.09	4809	2 5 0		
5	277.62	438	1.03	4809	2 8 0		
4.6	305.72	483	0.93	4809	3 0 0		
14	99.54	162	3.86	7200	M 0 6 3 2 1 0 0 _ M _ _ _ _ . 2 5 A - -	33.5	71
12	119.5	194	3.22	7200	1 1 2		
10	143.39	232	2.69	7200	1 2 5		
8.7	161.57	262	2.39	7200	1 6 0		
7.5	187.83	305	2.05	7200	1 8 0		
6.6	213.18	346	1.81	7200	2 0 0		
6.5	215.23	342	1.82	7200	M 0 6 4 2 2 2 5 _ M _ _ _ _ . 2 5 A - -	47.5	71
5.9	237.02	377	1.65	7200	2 5 0		
5.1	272.91	433	1.22	7200	2 8 0		
4.5	313.91	498	1.06	7200	3 0 0		
3.8	365.1	579	1.03	7200	3 6 0		
3.5	396.93	629	0.95	7200	4 0 0		
3.2	444.1	702	0.89	7200	4 5 0		
6.1	229	364	2.38	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 2 5 A - -	54.5	71
5.4	259.68	412	2.1	4676	2 5 0		
4.9	286.42	454	1.91	4676	2 8 0		
4.4	315.41	501	1.73	4676	3 0 0		
3.9	361.21	572	1.51	4675	3 6 0		
3.4	415.49	658	1.32	4675	4 0 0		
3	469.77	743	1.17	4675	4 5 0		
2.7	510.72	807	1.07	4675	5 0 0		
2.4	592.12	934	0.93	4675	6 5 0		

0.25 kW

6 POLE

240	3.75	9	7.09	1768	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 2 5 C - -	14.5	71
178	5.07	13	5.81	1845	5 . 0		
156	5.76	14	5.29	1844	5 . 6		
138	6.53	16	4.76	1845	6 . 3		
108	8.35	21	3.97	1845	8 . 0		
100	9	23	3.75	1831	9 . 0		
79	11.36	29	3.08	1731	1 1 .		
70	12.88	33	2.71	1666	1 2 .		
61	14.71	37	2.38	1647	1 4 .		
55	16.37	41	2.14	1653	1 6 .		
50	18.05	46	1.94	1576	1 8 .		
45	19.86	50	1.76	1507	2 0 .		
39	23.27	59	1.51	1493	2 2 .		
32	27.92	71	1.26	1325	2 8 .		
28	32.54	83	1.08	1319	3 2 .		
25	36.16	92	0.97	1121	3 6 .		
44	20.23	51	3.08	4000	M 0 2 2 2 2 0 . _ M _ _ _ _ . 2 5 C - -	18.5	71
41	21.99	56	2.84	4000	2 2 .		
34	26.4	67	2.37	3771	2 8 .		
28	31.68	80	1.98	3813	3 2 .		
25	35.69	91	1.75	3712	3 6 .		
22	41.49	106	1.51	3619	4 5 .		
19	47.09	120	1.33	3365	5 0 .		
17	53.54	136	1.17	3071	5 6 .		
16	57.03	144	1.11	3630	M 0 2 3 2 5 6 . _ M _ _ _ _ . 2 5 C - -	19.5	71
14	62.87	159	1	3318	6 3 .		
13	69.19	174	0.92	2986	7 1 .		
41	21.99	56	3.7	3873	M 0 3 2 2 2 2 . _ M _ _ _ _ . 2 5 C - -	18.5	71
34	26.4	67	3.09	3771	2 8 .		
28	31.68	81	2.58	3695	3 2 .		
25	35.69	91	2.3	3695	3 6 .		
22	41.49	106	1.94	3562	4 5 .		
19	47.09	120	1.73	3508	5 0 .		
17	53.54	136	1.51	3419	5 6 .		
16	57.03	144	1.45	3331	0 3 3 2 5 6 . _ M _ _ _ _ . 2 5 C - -	19.5	71
14	62.87	159	1.31	3243	6 3 .		
13	69.19	174	1.2	2790	7 1 .		
11	81.07	204	1.02	2359	8 0 .		
9.3	97.26	245	0.85	1920	1 0 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.25 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
15	58.38	148	2.28	6774	M 0 4 3 2 5 6 . _ M _ _ _ _ . 2 5 C - -	28.5	71
14	64.29	162	2.07	6944	6 3 .		
12	73.95	187	1.8	6749	7 1 .		
11	80.4	203	1.66	6620	8 0 .		
9.3	96.52	244	1.38	6609	1 0 0		
7.8	115.82	292	1.15	5558	1 1 2		
6.9	130.5	328	1.03	6144	1 2 5		
5.9	151.71	383	0.88	5239	1 6 0		
15	58.38	148	3.04	7200	M 0 5 3 2 5 6 . _ M _ _ _ _ . 2 5 C - -	28.5	71
14	64.29	163	2.76	7200	6 3 .		
12	73.95	187	2.4	6652	7 1 .		
11	80.4	204	2.2	6594	8 0 .		
9.3	96.52	244	1.84	6315	1 0 0		
7.8	115.82	292	1.54	6146	1 1 2		
6.9	130.5	329	1.37	5841	1 2 5		
5.9	151.71	383	1.17	5023	1 6 0		
5.2	172.19	434	1.03	4280	1 8 0		
4.6	195.75	493	0.91	3331	2 0 0		
12	72.28	183	3.41	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ . 2 5 C - -	33.5	71
11	79.6	202	3.09	7200	7 1 .		
10	91.56	232	2.69	7200	8 0 .		
9	99.54	252	2.48	7200	1 0 0		
7.5	119.5	302	2.07	6988	1 1 2		
6.3	143.39	362	1.73	6562	1 2 5		
5.6	161.57	408	1.53	6914	1 6 0		
4.8	187.83	475	1.32	6375	1 8 0		
4.2	213.18	538	1.16	5067	2 0 0		
4.2	215.23	534	1.17	7200	M 0 6 4 2 2 2 5 _ M _ _ _ _ . 2 5 C - -	47.5	71
3.8	237.02	588	1.06	7200	2 5 0		
3.9	229	567	1.53	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 2 5 C - -	54.5	71
3.5	259.68	642	1.35	4676	2 5 0		
3.1	286.42	708	1.22	4676	2 8 0		
2.9	315.41	780	1.11	4676	3 0 0		
2.5	361.21	892	0.97	4675	3 6 0		
2.2	415.49	1026	0.85	4675	4 0 0		
373	3.75	9	6.5	1652	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 3 7 A - -	14.5	71
276	5.07	12	5.45	1740	5 . 0		
243	5.76	14	5.09	1782	5 . 6		
214	6.53	15	4.7	1782	6 . 3		
168	8.35	20	3.89	1787	8 . 0		
156	9	22	3.65	1785	9 . 0		
123	11.36	27	3.03	1795	1 1 .		
109	12.88	31	2.77	1795	1 2 .		
95	14.71	35	2.5	1708	1 4 .		
86	16.37	39	2.25	1860	1 6 .		
78	18.05	43	2.04	1804	1 8 .		
70	19.86	48	1.86	1701	2 0 .		
60	23.27	56	1.58	1824	2 2 .		
50	27.92	67	1.32	1562	2 8 .		
43	32.54	78	1.14	1810	3 2 .		
39	36.16	87	1.03	1710	3 6 .		
80	17.58	42	3.73	4000	M 0 2 2 2 1 8 . _ M _ _ _ _ . 3 7 A - -	18.5	71
69	20.23	49	3.24	4000	2 0 .		
64	21.99	53	2.97	4000	2 2 .		
53	26.4	64	2.49	3963	2 8 .		
44	31.68	77	2.08	4000	3 2 .		
39	35.69	86	1.85	4000	3 6 .		
34	41.49	100	1.59	4000	4 5 .		
30	47.09	114	1.4	4000	5 0 .		
26	53.54	129	1.23	3819	5 6 .		
25	57.03	136	1.17	4000	M 0 2 3 2 5 6 . _ M _ _ _ _ . 3 7 A - -	19.5	71
22	62.87	151	1.06	4000	6 3 .		
20	69.19	166	0.96	4000	7 1 .		
17	81.07	194	0.82	3640	8 0 .		
64	21.99	53	3.89	3856	M 0 3 2 2 2 2 . _ M _ _ _ _ . 3 7 A - -	18.5	71
53	26.4	64	3.26	3681	2 8 .		
44	31.68	77	2.71	3727	3 2 .		
39	35.69	86	2.41	3560	3 6 .		
34	41.49	101	1.97	3786	4 5 .		
30	47.09	114	1.77	3533	5 0 .		
26	53.54	130	1.58	3840	5 6 .		
25	57.03	136	1.53	3686	M 0 3 3 2 5 6 . _ M _ _ _ _ . 3 7 A - -	19.5	71
22	62.87	151	1.38	3383	6 3 .		
20	69.19	166	1.26	2930	7 1 .		
17	81.07	194	1.08	3640	8 0 .		
14	97.26	232	0.9	2560	1 0 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.37 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
24	58.38	140	2.41	7087	M 0 4 3 2 5 6 . _ M _ _ _ _ . 3 7 A - -	28.5	71
22	64.29	154	2.18	7200	6 3 .		
19	73.95	178	1.9	7176	7 1 .		
17	80.4	193	1.75	7123	8 0 .		
15	96.52	232	1.46	7200	1 0 0		
12	115.82	277	1.22	6793	1 1 2		
11	130.5	312	1.08	7200	1 2 5		
9.2	151.71	363	0.93	7110	1 6 0		
8.1	172.19	412	0.82	6510	1 8 0		
24	58.38	141	3.18	7200	M 0 5 3 2 5 6 . _ M _ _ _ _ . 3 7 A - -	28.5	71
22	64.29	155	2.9	7200	6 3 .		
19	73.95	178	2.52	6687	7 1 .		
17	80.4	193	2.32	7005	8 0 .		
15	96.52	232	1.94	6393	1 0 0		
12	115.82	278	1.62	6563	1 1 2		
11	130.5	313	1.44	6018	1 2 5		
9.2	151.71	364	1.23	4950	1 6 0		
8.1	172.19	413	1.09	5960	1 8 0		
7.2	195.75	469	0.96	4820	2 0 0		
6	232.81	545	0.82	4809	M 0 5 4 2 2 2 5 _ M _ _ _ _ . 3 7 A - -	41.5	71
19	72.28	173	3.6	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ . 3 7 A - -	33.5	71
18	79.6	192	3.24	7200	7 1 .		
15	91.56	220	2.84	7200	8 0 .		
14	99.54	240	2.61	7200	1 0 0		
12	119.5	287	2.17	7200	1 1 2		
10	143.39	344	1.82	7200	1 2 5		
8.7	161.57	388	1.61	7200	1 6 0		
7.5	187.83	451	1.39	7200	1 8 0		
6.6	213.18	512	1.22	7200	2 0 0		
6.5	215.23	507	1.23	7200	M 0 6 4 2 2 2 5 _ M _ _ _ _ . 3 7 A - -	47.5	71
5.9	237.02	559	1.12	7200	2 5 0		
5.1	272.91	641	0.82	7200	2 8 0		
6.1	229	539	1.61	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 3 7 A - -	54.5	71
5.4	259.68	610	1.42	4676	2 5 0		
4.9	286.42	672	1.29	4676	2 8 0		
4.4	315.41	741	1.17	4676	3 0 0		
3.9	361.21	847	1.02	4675	3 6 0		
3.4	415.49	974	0.89	4675	4 0 0		

0.37 kW

6 POLE

245	3.75	13	4.9	1730	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 3 7 C - -	18.5	80A
182	5.07	18	4.01	1795	5 . 0		
160	5.76	21	3.65	1792	5 . 6		
141	6.53	24	3.29	1795	6 . 3		
110	8.35	30	2.75	1795	8 . 0		
102	9	33	2.59	1767	9 . 0		
81	11.36	42	2.12	1575	1 1 .		
71	12.88	47	1.88	1451	1 2 .		
63	14.71	54	1.64	1415	1 4 .		
56	16.37	60	1.48	1425	1 6 .		
51	18.05	66	1.34	1278	1 8 .		
46	19.86	73	1.22	1146	2 0 .		
40	23.27	86	1.04	1117	2 2 .		
33	27.92	103	0.87	795	2 8 .		
74	12.37	46	3.47	4000	M 0 2 2 2 1 2 . _ M _ _ _ _ . 3 7 C - -	22.5	80A
65	14.05	52	3.06	4000	1 4 .		
58	15.97	59	2.69	4000	1 6 .		
52	17.58	65	2.45	4000	1 8 .		
45	20.23	75	2.13	3841	2 0 .		
42	21.99	81	1.96	3765	2 2 .		
35	26.4	97	1.63	3380	2 8 .		
29	31.68	117	1.36	3493	3 2 .		
26	35.69	131	1.21	3220	3 6 .		
22	41.49	153	1.04	3267	4 5 .		
20	47.09	174	0.92	2779	5 0 .		
17	53.54	197	0.81	2215	5 6 .		
58	15.97	59	3.52	4000	M 0 3 2 2 1 6 . _ M _ _ _ _ . 3 7 C - -	22.5	80A
52	17.58	65	3.19	3933	1 8 .		
45	20.23	75	2.77	3768	2 0 .		
42	21.99	81	2.56	3657	2 2 .		
35	26.4	97	2.13	3380	2 8 .		
29	31.68	117	1.78	3173	3 2 .		
26	35.69	131	1.59	3173	3 6 .		
22	41.49	153	1.34	2812	4 5 .		
20	47.09	173	1.2	2666	5 0 .		
17	53.54	197	1.04	2423	5 6 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.37 kW

6 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
16	57.03	208	1	2186	M 0 3 3 2 5 6 . _ M _ _ _ _ . 3 7 C - -	23.5	80A
15	62.87	230	0.91	1945	6 3 .		
13	69.19	252	0.83	1674	7 1 .		
34	27.3	101	3.34	7200	M 0 4 2 2 2 8 . _ M _ _ _ _ . 3 7 C - -	30.5	80A
29	32.19	119	2.82	7200	3 2 .		
26	35.25	130	2.58	7200	3 6 .		
21	43.2	159	2.11	7200	4 5 .		
19	48.15	178	1.9	7200	5 0 .		
17	54	199	1.35	7200	5 6 .		
16	58.38	214	1.58	6045	M 0 4 3 2 5 6 . _ M _ _ _ _ . 3 7 C - -	32.5	80A
14	64.29	235	1.43	6506	6 3 .		
12	73.95	271	1.25	5976	7 1 .		
11	80.4	294	1.15	5626	8 0 .		
10	96.52	353	0.96	5597	1 0 0		
29	32.19	119	3.76	7200	M 0 5 2 2 3 2 . _ M _ _ _ _ . 3 7 C - -	31.5	80A
26	35.25	130	3.44	7200	3 6 .		
21	43.2	160	2.54	7200	4 5 .		
19	48.15	178	2.13	7200	5 0 .		
17	54	199	1.35	7200	5 6 .		
16	58.38	214	2.1	6391	M 0 5 3 2 5 6 . _ M _ _ _ _ . 3 7 C - -	32.5	80A
14	64.29	236	1.9	6204	6 3 .		
12	73.95	271	1.66	5713	7 1 .		
11	80.4	295	1.52	5556	8 0 .		
10	96.52	353	1.27	4800	1 0 0		
7.9	115.82	423	1.06	4339	1 1 2		
7	130.5	477	0.94	3513	1 2 5		
6.1	151.71	555	0.81	3013	1 6 0		
15	59.61	220	2.13	7200	M 0 6 2 2 5 6 . _ M _ _ _ _ . 3 7 C - -	36.5	80A
13	72.28	265	2.36	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ . 3 7 C - -	37.5	80A
12	79.6	292	2.14	7008	7 1 .		
10	91.56	336	1.86	6645	8 0 .		
9.2	99.54	365	1.71	6403	1 0 0		
7.7	119.5	438	1.43	6626	1 1 2		
6.4	143.39	525	1.19	5470	1 2 5		
5.7	161.57	590	1.06	6424	1 6 0		
4.9	187.83	688	0.91	4961	1 8 0		
4.3	213.18	779	0.8	3099	2 0 0		
4.3	215.23	773	0.81	7200	M 0 6 4 2 2 2 5 _ M _ _ _ _ . 3 7 C - -	50.5	80A
16	58.95	216	3.99	10000	M 0 7 3 2 5 6 . _ M _ _ _ _ . 3 7 C - -	48.5	80A
15	62.83	231	3.76	10000	6 3 .		
12	74.47	274	3.16	10000	7 1 .		
12	79.51	291	2.98	10000	8 0 .		
9.3	98.66	361	2.4	10000	1 0 0		
7.9	116.34	426	2.04	10000	1 1 2		
7.2	127.39	466	1.86	10000	1 2 5		
5.9	156.12	569	1.54	10000	1 6 0		
5.3	174.01	635	1.39	8970	1 8 0		
4.7	195.15	711	1.25	7760	2 0 0		
4	229	821	1.06	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 3 7 C - -	57.5	80A
3.5	259.68	929	0.93	4676	2 5 0		
3.2	286.42	1025	0.85	4676	2 8 0		
4	228.91	821	1.66	18916	M 0 8 4 2 2 2 5 _ M _ _ _ _ . 3 7 C - -	105.5	80A
3.6	258.98	928	1.58	17870	2 5 0		
3.1	301.21	1079	1.36	17870	2 8 0		
2.7	337.01	1206	1.21	17870	3 0 0		
2.6	359.19	1286	1.14	17870	3 6 0		
2.2	425.69	1523	0.96	17870	4 0 0		
1.9	480.51	1717	0.9	16792	4 5 0		
1.8	513.04	1833	0.84	16792	5 0 0		
4	231.06	837	3.16	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ . 3 7 C - -	149.5	80A
3.6	258.09	933	3.06	24951	2 5 0		
3.1	300.18	1085	2.63	24951	2 8 0		
2.7	335.85	1212	2.36	24951	3 0 0		
2.6	357.95	1293	2.21	24951	3 6 0		
2.2	424.23	1531	1.87	24951	4 0 0		
2	471.32	1699	1.68	24951	4 5 0		
1.8	503.22	1813	1.58	24951	5 0 0		
1.5	624.45	2246	1.27	24951	6 5 0		
1.2	736.35	2644	1.08	24951	7 3 0		
1	882.06	3161	0.9	24951	8 6 0		
0.34	2743.72	9589	1.11	80613	M 1 4 5 1 2 7 C _ M _ _ _ _ . 3 7 C - -	406.5	80A
0.27	3404.7	11873	0.9	80613	3 2 C		

SERIES M

SELECTION TABLES

GEARED MOTORS

0.55 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
379	3.75	13	4.43	1625	M 0 1 2 2 3 . 6 _ M _ _ _ . 5 5 A - -	18.5	80A
280	5.07	18	3.72	1705	5 . 0		
246	5.76	20	3.47	1740	5 . 6		
218	6.53	23	3.21	1711	6 . 3		
170	8.35	29	2.65	1706	8 . 0		
158	9	32	2.49	1703	9 . 0		
125	11.36	40	2.07	1720	1 1 .		
110	12.88	46	1.89	1720	1 2 .		
97	14.71	52	1.7	1570	1 4 .		
87	16.37	58	1.54	1831	1 6 .		
79	18.05	64	1.39	1736	1 8 .		
71	19.86	70	1.27	1558	2 0 .		
61	23.27	82	1.08	1770	2 2 .		
51	27.92	99	0.9	1320	2 8 .		
127	11.15	39	3.63	4000	M 0 2 2 2 1 1 . _ M _ _ _ . 5 5 A - -	22.5	80A
115	12.37	44	3.35	4000	1 2 .		
101	14.05	50	3.04	4000	1 4 .		
89	15.97	57	2.8	4000	1 6 .		
81	17.58	62	2.55	3942	1 8 .		
70	20.23	72	2.21	3885	2 0 .		
65	21.99	78	2.03	4000	2 2 .		
54	26.4	94	1.7	3908	2 8 .		
45	31.68	112	1.42	4000	3 2 .		
40	35.69	126	1.26	4000	3 6 .		
34	41.49	147	1.08	4000	4 5 .		
30	47.09	167	0.95	4000	5 0 .		
27	53.54	190	0.84	3690	5 6 .		
101	14.05	50	3.85	4000	M 0 3 2 2 1 4 . _ M _ _ _ . 5 5 A - -	22.5	80A
89	15.97	56	3.6	3972	1 6 .		
81	17.58	62	3.31	3934	1 8 .		
70	20.23	72	2.88	3798	2 0 .		
65	21.99	78	2.65	3719	2 2 .		
54	26.4	93	2.23	3380	2 8 .		
45	31.68	112	1.85	3469	3 2 .		
40	35.69	127	1.65	3143	3 6 .		
34	41.49	148	1.34	3584	4 5 .		
30	47.09	167	1.21	3091	5 0 .		
27	53.54	190	1.08	3690	5 6 .		
25	57.03	200	1.04	3390	M 0 3 3 2 5 6 . _ M _ _ _ . 5 5 A - -	23.5	80A
23	62.87	221	0.94	2800	6 3 .		
21	69.19	243	0.86	2160	7 1 .		
52	27.3	97	3.44	7200	M 0 4 2 2 2 8 . _ M _ _ _ . 5 5 A - -	30.5	80A
44	32.19	115	2.94	7200	3 2 .		
40	35.25	125	2.69	7200	3 6 .		
33	43.2	154	2.19	7200	4 5 .		
29	48.15	171	1.98	7200	5 0 .		
26	54	191	1.41	7200	5 6 .		
24	58.38	205	1.64	6917	M 0 4 3 2 5 6 . _ M _ _ _ . 5 5 A - -	32.5	80A
22	64.29	227	1.49	7200	6 3 .		
19	73.95	261	1.29	7154	7 1 .		
18	80.4	283	1.19	7050	8 0 .		
15	96.52	340	0.99	7200	1 0 0		
12	115.82	407	0.83	6500	1 1 2		
44	32.19	115	3.9	7200	M 0 5 2 2 3 2 . _ M _ _ _ . 5 5 A - -	31.5	80A
40	35.25	125	3.58	7200	3 6 .		
33	43.2	154	2.3	7200	4 5 .		
29	48.15	171	2.12	7200	5 0 .		
26	54	191	1.41	7200	5 6 .		
24	58.38	207	2.17	6869	M 0 5 3 2 5 6 . _ M _ _ _ . 5 5 A - -	32.5	80A
22	64.29	227	1.98	6652	6 3 .		
19	73.95	261	1.72	5918	7 1 .		
18	80.4	284	1.58	6714	8 0 .		
15	96.52	340	1.32	5629	1 0 0		
12	115.82	408	1.1	5960	1 1 2		
11	130.5	459	0.98	4900	1 2 5		
9.4	151.71	534	0.84	3329	1 6 0		
27	53.49	190	2.76	7200	M 0 6 2 2 5 0 . _ M _ _ _ . 5 5 A - -	36.5	80A
24	59.61	212	2.21	7200	5 6 .		
20	72.28	254	2.46	7200	M 0 6 3 2 6 3 . _ M _ _ _ . 5 5 A - -	37.5	80A
18	79.6	282	2.21	7200	7 1 .		
16	91.56	322	1.94	7200	8 0 .		
14	99.54	351	1.78	7200	1 0 0		
12	119.5	422	1.48	7200	1 1 2		
10	143.39	505	1.24	7200	1 2 5		
8.8	161.57	568	1.1	7200	1 6 0		
7.6	187.83	662	0.95	7200	1 8 0		
6.7	213.18	751	0.83	7200	2 0 0		
6.6	215.23	743	0.84	7200	M 0 6 4 2 2 2 5 _ M _ _ _ . 5 5 A - -	50.5	80A

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.55 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
24	58.95	208	3.61	10000	M 0 7 3 2 5 6 . _ M _ _ _ _ . 5 5 A - -	48.5	80A
23	62.83	221	3.47	10000	6 3 .		
19	74.47	263	3.1	10000	7 1 .		
18	79.51	280	2.97	10000	8 0 .		
14	98.66	348	2.49	10000	1 0 0		
12	116.34	409	2.12	10000	1 1 2		
11	127.39	447	1.94	10000	1 2 5		
9.1	156.12	548	1.58	10000	1 6 0		
8.2	174.01	611	1.42	9140	1 8 0		
7.3	195.15	684	1.27	7940	2 0 0		
6.2	229	790	1.1	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 5 5 A - -	57.5	80A
5.5	259.68	894	0.97	4676	2 5 0		
5	286.42	986	0.88	4676	2 8 0		
12	119.19	419	3.94	20000	M 0 8 3 2 1 1 2 _ M _ _ _ _ . 5 5 A - -	76.5	80A
11	130.92	461	3.58	20000	1 2 5		
8.9	160.45	565	2.92	20000	1 6 0		
8.1	175.21	617	2.67	20000	1 8 0		
7	201.75	707	2.33	20000	2 0 0		
6.2	228.91	788	1.73	18916	M 0 8 4 2 2 2 5 _ M _ _ _ _ . 5 5 A - -	105.5	80A
5.5	258.98	891	1.64	17870	2 5 0		
4.7	301.21	1036	1.41	17870	2 8 0		
4.2	337.01	1158	1.26	17870	3 0 0		
4	359.19	1235	1.18	17870	3 6 0		
3.3	425.69	1464	1	17870	4 0 0		
3	480.51	1650	0.93	16792	4 5 0		
2.8	513.04	1761	0.87	16792	5 0 0		
6.1	231.06	805	3.29	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ . 5 5 A - -	149.5	80A
5.5	258.09	898	3.18	24951	2 5 0		
4.7	300.18	1044	2.74	24951	2 8 0		
4.2	335.85	1166	2.45	24951	3 0 0		
4	357.95	1244	2.3	24951	3 6 0		
3.3	424.23	1473	1.94	24951	4 0 0		
3	471.32	1635	1.75	24951	4 5 0		
2.8	503.22	1745	1.64	24951	5 0 0		
2.3	624.45	2162	1.32	24951	6 5 0		
1.9	736.35	2546	1.12	24951	7 3 0		
1.6	882.06	3040	0.94	24951	8 6 0		
0.52	2743.72	9227	1.15	80613	M 1 4 5 1 2 7 C _ M _ _ _ _ . 5 5 A - -	406.5	80A
0.42	3404.7	11435	0.93	80613	3 2 C		

0.55 kW

6 POLE

245	3.75	20	3.29	1673	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 5 5 C - -	20	80B
182	5.07	28	2.7	1720	5 . 0		
160	5.76	31	2.46	1715	5 . 6		
141	6.53	36	2.21	1720	6 . 3		
110	8.35	46	1.85	1720	8 . 0		
102	9	49	1.74	1671	9 . 0		
81	11.36	62	1.43	1341	1 1 .		
71	12.88	71	1.26	1129	1 2 .		
63	14.71	81	1.1	1066	1 4 .		
56	16.37	90	0.99	1083	1 6 .		
51	18.05	99	0.9	830	1 8 .		
46	19.86	109	0.82	603	2 0 .		
146	6.3	34	3.96	4000	M 0 2 2 2 6 . 3 _ M _ _ _ _ . 5 5 C - -	24	80B
115	8	44	3.28	4000	8 . 0		
101	9.09	50	2.98	4000	9 . 0		
82	11.15	62	2.54	4000	1 1 .		
74	12.37	68	2.33	4000	1 2 .		
65	14.05	77	2.06	4000	1 4 .		
58	15.97	88	1.81	4000	1 6 .		
52	17.58	97	1.64	3921	1 8 .		
45	20.23	111	1.43	3604	2 0 .		
42	21.99	121	1.32	3414	2 2 .		
35	26.4	145	1.1	2793	2 8 .		
29	31.68	174	0.92	3013	3 2 .		
26	35.69	196	0.82	2481	3 6 .		
101	9.09	50	3.78	4000	M 0 3 2 2 9 . 0 _ M _ _ _ _ . 5 5 C - -	24	80B
82	11.15	61	3.29	4000	1 1 .		
74	12.37	68	3.05	4000	1 2 .		
65	14.05	77	2.68	4000	1 4 .		
58	15.97	88	2.37	4000	1 6 .		
52	17.58	97	2.14	3871	1 8 .		
45	20.23	112	1.86	3549	2 0 .		
42	21.99	121	1.72	3332	2 2 .		
35	26.4	145	1.44	2793	2 8 .		
29	31.68	174	1.2	2391	3 2 .		
26	35.69	195	1.07	2391	3 6 .		
22	41.49	228	0.9	1687	4 5 .		
20	47.09	258	0.81	1403	5 0 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.55 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
53	17.39	96	3.5	7200	M 0 4 2 2 1 8 . _ M _ _ _ _ . 5 5 C - -	32	80B
45	20.61	114	2.96	7200	2 0 .		
42	22	122	2.77	7200	2 2 .		
34	27.3	150	2.25	6720	2 8 .		
29	32.19	177	1.9	6835	3 2 .		
26	35.25	194	1.74	6675	3 6 .		
21	43.2	237	1.42	6266	4 5 .		
19	48.15	264	1.28	6393	5 0 .		
17	54	296	0.91	6939	5 6 .		
16	58.38	318	1.06	4951	M 0 4 3 2 5 6 . _ M _ _ _ _ . 5 5 C - -	34	80B
14	64.29	350	0.96	5849	6 3 .		
12	73.95	403	0.84	4817	7 1 .		
45	20.61	114	3.94	6989	M 0 5 2 2 2 0 . _ M _ _ _ _ . 5 5 C - -	33	80B
42	22	121	3.69	6929	2 2 .		
34	27.3	151	2.98	6700	2 8 .		
29	32.19	178	2.53	6491	3 2 .		
26	35.25	194	2.32	6491	3 6 .		
21	43.2	237	1.71	6249	4 5 .		
19	48.15	264	1.43	6053	5 0 .		
17	54	296	0.91	6678	5 6 .		
16	58.38	318	1.41	5177	M 0 5 3 2 5 6 . _ M _ _ _ _ . 5 5 C - -	34	80B
14	64.29	351	1.28	4710	6 3 .		
12	73.95	404	1.11	4304	7 1 .		
11	80.4	439	1.02	3999	8 0 .		
10	96.52	525	0.86	2526	1 0 0		
27	33.8	187	3.35	7200	M 0 6 2 2 3 2 . _ M _ _ _ _ . 5 5 C - -	38	80B
23	39.86	220	2.84	7200	3 6 .		
21	43.64	241	2.6	7200	4 5 .		
17	53.49	294	1.85	7200	5 0 .		
15	59.61	328	1.43	6908	5 6 .		
13	72.28	394	1.59	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ . 5 5 C - -	39	80B
12	79.6	435	1.44	6720	7 1 .		
10	91.56	500	1.25	5812	8 0 .		
9.2	99.54	543	1.15	5209	1 0 0		
7.7	119.5	652	0.96	6083	1 1 2		
6.4	143.39	781	0.8	3831	1 2 5		
22	42.21	231	3.75	10000	M 0 7 2 2 4 5 . _ M _ _ _ _ . 5 5 C - -	45	80B
19	48.56	266	2.63	10000	5 0 .		
17	53.96	294	2.02	10000	5 6 .		
16	58.95	322	2.68	9221	M 0 7 3 2 5 6 . _ M _ _ _ _ . 5 5 C - -	50	80B
15	62.83	343	2.53	9072	6 3 .		
12	74.47	408	2.13	8636	7 1 .		
12	79.51	433	2	8446	8 0 .		
9.3	98.66	537	1.61	8407	1 0 0		
7.9	116.34	633	1.37	7534	1 1 2		
7.2	127.39	693	1.25	7534	1 2 5		
5.9	156.12	846	1.03	5591	1 6 0		
5.3	174.01	945	0.94	4721	1 8 0		
4.7	195.15	1057	0.84	4084	2 0 0		
9	102.2	557	2.96	20000	M 0 8 3 2 1 0 0 _ M _ _ _ _ . 5 5 C - -	78	80B
7.7	119.19	648	2.54	20000	1 1 2		
7	130.92	711	2.32	20000	1 2 5		
5.7	160.45	876	1.88	20000	1 6 0		
5.3	175.21	952	1.73	20000	1 8 0		
4.6	201.75	1093	1.51	20000	2 0 0		
4	228.91	1221	1.12	18916	M 0 8 4 2 2 2 5 _ M _ _ _ _ . 5 5 C - -	107	80B
3.6	258.98	1380	1.06	17870	2 5 0		
3.1	301.21	1604	0.91	17870	2 8 0		
2.7	337.01	1792	0.82	17870	3 0 0		
6.3	145.2	791	3.12	29600	M 0 9 3 1 1 4 0 _ M _ _ _ _ . 5 5 C - -	129	80B
5.7	160.29	875	2.82	29500	1 6 0		
4	231.06	1244	2.13	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ . 5 5 C - -	151	80B
3.6	258.09	1388	2.06	24951	2 5 0		
3.1	300.18	1613	1.77	24951	2 8 0		
2.7	335.85	1802	1.59	24951	3 0 0		
2.6	357.95	1922	1.49	24951	3 6 0		
2.2	424.23	2275	1.26	24951	4 0 0		
2	471.32	2525	1.13	24951	4 5 0		
1.8	503.22	2695	1.06	24951	5 0 0		
1.5	624.45	3339	0.86	24951	6 5 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.55 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
4.2	220.22	1179	3.74	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ . 5 5 C - -	213	80B
3.8	242.24	1297	3.4	41580	2 5 0		
3.3	278.36	1489	2.96	41580	2 8 0		
2.9	315.65	1686	2.62	41580	3 0 0		
2.6	348.16	1861	2.37	41580	3 6 0		
2.3	398.71	2130	2.07	41580	4 0 0		
2.1	443.06	2364	1.87	41580	4 5 0		
1.8	500.94	2670	1.65	41580	5 0 0		
1.6	580.78	3093	1.43	41580	6 5 0		
1.3	692.72	3683	1.2	41580	7 3 0		
1.1	828.21	4397	1	41580	8 6 0		
0.93	987.84	5238	0.84	41580	1 0 C		
2.8	325.33	1733	3.66	64632	M 1 3 4 1 3 0 0 _ M _ _ _ _ . 5 5 C - -	287	80B
2.6	358.84	1912	3.32	64632	3 6 0		
2.2	410.95	2189	2.9	64632	4 0 0		
2	463.22	2466	2.57	64632	4 5 0		
1.8	523.74	2786	2.28	64632	5 0 0		
1.5	607.22	3226	1.97	64632	6 5 0		
1.3	724.25	3842	1.65	64632	7 3 0		
1.1	858.69	4535	1.4	64632	8 6 0		
0.9	1024.19	5402	1.18	64632	1 0 C		
0.81	1140.7	6006	1.06	64632	1 1 C		
0.74	1249.19	6571	0.97	64632	1 3 C		
0.6	1528.11	8013	0.81	64690	1 5 C		
1.7	556.83	2961	3.64	80613	M 1 4 4 1 5 0 0 _ M _ _ _ _ . 5 5 C - -	403	80B
1.4	645.58	3429	3.14	80613	6 5 0		
1.2	770.01	4083	2.64	80613	7 3 0		
1.1	801.52	4244	2.51	80613	8 6 0		
0.99	929.27	4915	2.17	80613	1 0 C		
0.83	1108.37	5853	1.82	80613	1 1 C		
0.76	1213.79	6404	1.66	80613	1 3 C		
0.61	1502.21	7906	1.28	80711	1 5 C		
0.51	1802.65	9464	1.07	80711	1 8 C		
0.44	2074.02	10876	0.93	80711	2 0 C		
0.4	2304.47	12062	0.84	80711	2 4 C		

0.75 kW

4 POLE

377	3.75	18	3.24	1596	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 7 5 A - -	18.5	80A
279	5.07	24	2.72	1665	5 . 0		
246	5.76	28	2.54	1694	5 . 6		
217	6.53	32	2.34	1633	6 . 3		
169	8.35	40	1.94	1616	8 . 0		
157	9	44	1.82	1612	9 . 0		
125	11.36	55	1.51	1636	1 1 .		
110	12.88	63	1.38	1636	1 2 .		
96	14.71	72	1.25	1417	1 4 .		
86	16.37	79	1.12	1800	1 6 .		
78	18.05	88	1.02	1660	1 8 .		
71	19.86	96	0.93	1400	2 0 .		
177	8	39	3.47	4000	M 0 2 2 2 8 . 0 _ M _ _ _ _ . 7 5 A - -	22.5	80A
156	9.09	44	3.14	4000	9 . 0		
127	11.15	54	2.65	4000	1 1 .		
114	12.37	60	2.45	4000	1 2 .		
101	14.05	68	2.22	4000	1 4 .		
89	15.97	78	2.04	3968	1 6 .		
80	17.58	85	1.86	3878	1 8 .		
70	20.23	99	1.61	3757	2 0 .		
64	21.99	107	1.48	4000	2 2 .		
54	26.4	128	1.24	3847	2 8 .		
45	31.68	154	1.04	4000	3 2 .		
40	35.69	173	0.92	4000	3 6 .		
156	9.09	44	3.76	4000	M 0 3 2 2 9 . 0 _ M _ _ _ _ . 7 5 A - -	22.5	80A
127	11.15	54	3.28	4000	1 1 .		
114	12.37	60	3.07	4000	1 2 .		
101	14.05	69	2.81	4000	1 4 .		
89	15.97	77	2.63	3957	1 6 .		
80	17.58	85	2.42	3898	1 8 .		
70	20.23	99	2.11	3689	2 0 .		
64	21.99	107	1.94	3568	2 2 .		
54	26.4	128	1.63	3045	2 8 .		
45	31.68	154	1.35	3182	3 2 .		
40	35.69	173	1.2	2680	3 6 .		
34	41.49	202	0.98	3360	4 5 .		
30	47.09	229	0.88	2600	5 0 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.75kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
81	17.39	85	3.64	6430	M 0 4 2 2 1 8 . _ M _ _ _ _ . 7 5 A - -	30.5	80A
69	20.61	100	3.16	6750	2 0 .		
64	22	107	2.99	6880	2 2 .		
52	27.3	133	2.51	7052	2 8 .		
44	32.19	157	2.15	7124	3 2 .		
40	35.25	172	1.96	7147	3 6 .		
33	43.2	211	1.6	6970	4 5 .		
29	48.15	234	1.44	7178	5 0 .		
26	54	262	1.03	7200	5 6 .		
24	58.38	281	1.2	6729	M 0 4 3 2 5 6 . _ M _ _ _ _ . 7 5 A - -	32.5	80A
22	64.29	310	1.09	7200	6 3 .		
19	73.95	357	0.95	7130	7 1 .		
18	80.4	388	0.87	6970	8 0 .		
52	27.3	134	3.36	6723	M 0 5 2 2 2 8 . _ M _ _ _ _ . 7 5 A - -	31.5	80A
44	32.19	157	2.85	6875	3 2 .		
40	35.25	172	2.62	6769	3 6 .		
33	43.2	210	1.68	6865	4 5 .		
29	48.15	234	1.55	6658	5 0 .		
26	54	262	1.03	7200	5 6 .		
24	58.38	283	1.59	6502	M 0 5 3 2 5 6 . _ M _ _ _ _ . 7 5 A - -	32.5	80A
22	64.29	311	1.44	6044	6 3 .		
19	73.95	358	1.26	5064	7 1 .		
18	80.4	389	1.16	6390	8 0 .		
15	96.52	466	0.97	4780	1 0 0		
42	33.8	165	3.77	7200	M 0 6 2 2 3 2 . _ M _ _ _ _ . 7 5 A - -	36.5	80A
36	39.86	194	3.21	7200	3 6 .		
32	43.64	213	2.93	7200	4 5 .		
26	53.49	260	2.02	7200	5 0 .		
24	59.61	291	1.61	7200	5 6 .		
20	72.28	348	1.8	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ . 7 5 A - -	37.5	80A
18	79.6	386	1.61	7200	7 1 .		
15	91.56	441	1.42	7200	8 0 .		
14	99.54	481	1.3	7200	1 0 0		
12	119.5	577	1.08	7200	1 1 2		
10	143.39	691	0.91	7200	1 2 5		
29	48.56	235	2.97	10000	M 0 7 2 2 5 0 . _ M _ _ _ _ . 7 5 A - -	43.5	80A
26	53.96	261	2.28	10000	5 6 .		
24	58.95	285	2.64	9458	M 0 7 3 2 5 6 . _ M _ _ _ _ . 7 5 A - -	48.5	80A
23	62.83	303	2.54	9349	6 3 .		
19	74.47	359	2.26	9454	7 1 .		
18	79.51	383	2.17	9288	8 0 .		
14	98.66	476	1.82	8661	1 0 0		
12	116.34	560	1.55	8450	1 1 2		
11	127.39	612	1.42	7996	1 2 5		
9.1	156.12	751	1.16	6910	1 6 0		
8.1	174.01	837	1.04	5530	1 8 0		
7.3	195.15	936	0.93	3899	2 0 0		
6.2	229	1081	0.8	4677	M 0 7 4 2 2 2 5 _ M _ _ _ _ . 7 5 A - -	57.5	80A
14	102.2	493	3.34	20000	M 0 8 3 2 1 0 0 _ M _ _ _ _ . 7 5 A - -	76.5	80A
12	119.19	573	2.88	19337	1 1 2		
11	130.92	630	2.62	19051	1 2 5		
8.8	160.45	773	2.13	19410	1 6 0		
8.1	175.21	845	1.95	18989	1 8 0		
7	201.75	968	1.7	18252	2 0 0		
6.2	228.91	1079	1.27	18916	M 0 8 4 2 2 2 5 _ M _ _ _ _ . 7 5 A - -	105.5	80A
5.5	258.98	1219	1.2	17870	2 5 0		
4.7	301.21	1418	1.03	17870	2 8 0		
4.2	337.01	1585	0.92	17870	3 0 0		
3.9	359.19	1691	0.87	17870	3 6 0		
10	145.2	700	3.53	29600	M 0 9 3 1 1 4 0 _ M _ _ _ _ . 7 5 A - -	127.5	80A
8.8	160.29	771	3.2	29600	1 6 0		
6.1	231.06	1101	2.4	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ . 7 5 A - -	149.5	80A
5.5	258.09	1228	2.33	24951	2 5 0		
4.7	300.18	1428	2	24951	2 8 0		
4.2	335.85	1596	1.79	24951	3 0 0		
4	357.95	1702	1.68	24951	3 6 0		
3.3	424.23	2016	1.42	24951	4 0 0		
3	471.32	2237	1.28	24951	4 5 0		
2.8	503.22	2388	1.2	24951	5 0 0		
2.3	624.45	2959	0.97	24951	6 5 0		
1.9	736.35	3485	0.82	24951	7 3 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.75 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
5.8	242.24	1148	3.84	41580	M 1 0 4 1 2 5 0 _ M _ _ _ _ . 7 5 A - -	211.5	80A
5.1	278.36	1318	3.35	41580	2 8 0		
4.5	315.65	1493	2.95	41580	3 0 0		
4.1	348.16	1648	2.68	41580	3 6 0		
3.5	398.71	1886	2.34	41580	4 0 0		
3.2	443.06	2093	2.11	41580	4 5 0		
2.8	500.94	2365	1.87	41580	5 0 0		
2.4	580.78	2740	1.61	41580	6 5 0		
2	692.72	3264	1.35	41580	7 3 0		
1.7	828.21	3892	1.13	41580	8 6 0		
1.4	987.84	4638	0.95	41580	1 0 C		
1.2	1138.21	5332	0.83	41580	1 1 C		
3.9	358.84	1694	3.75	64632	M 1 3 4 1 3 6 0 _ M _ _ _ _ . 7 5 A - -	285.5	80A
3.4	410.95	1939	3.27	64632	4 0 0		
3.1	463.22	2185	2.91	64632	4 5 0		
2.7	523.74	2468	2.57	64632	5 0 0		
2.3	607.22	2859	2.22	64632	6 5 0		
2	724.25	3406	1.86	64632	7 3 0		
1.6	858.69	4016	1.58	64632	8 6 0		
1.4	1024.19	4785	1.33	64632	1 0 C		
1.2	1140.7	5319	1.19	64632	1 1 C		
1.1	1249.19	5821	1.09	64632	1 3 C		
0.93	1528.11	7097	0.91	64690	1 5 C		
2.2	645.58	3040	3.54	80613	M 1 4 4 1 6 5 0 _ M _ _ _ _ . 7 5 A - -	401.5	80A
1.8	770.01	3621	2.97	80613	7 3 0		
1.8	801.52	3760	2.83	80613	8 6 0		
1.5	929.27	4355	2.45	80613	1 0 C		
1.3	1108.37	5188	2.05	80613	1 1 C		
1.2	1213.79	5677	1.88	80613	1 3 C		
0.94	1502.21	7007	1.44	80711	1 5 C		
0.78	1802.65	8391	1.2	80711	1 8 C		
0.68	2074.02	9645	1.05	80711	2 0 C		
0.61	2304.47	10700	0.94	80711	2 4 C		
0.52	2743.72	12627	0.84	80613	M 1 4 5 1 2 7 C _ M _ _ _ _ . 7 5 A - -	406.5	80A

0.75 kW

6 POLE

245	3.75	28	2.41	1610	M 0 1 2 2 3 . 6 _ M _ _ _ _ . 7 5 C - -	23.5	90S
182	5.07	38	1.98	1636	5 . 0		
160	5.76	43	1.8	1630	5 . 6		
141	6.53	49	1.62	1636	6 . 3		
110	8.35	62	1.35	1636	8 . 0		
102	9	67	1.28	1565	9 . 0		
81	11.36	85	1.05	1081	1 1 .		
71	12.88	96	0.93	770	1 2 .		
63	14.71	110	0.81	678	1 4 .		
183	5.03	37	3.45	4000	M 0 2 2 2 5 . 0 _ M _ _ _ _ . 7 5 C - -	26.5	90S
166	5.55	41	3.19	4000	5 . 6		
146	6.3	47	2.9	4000	6 . 3		
115	8	60	2.4	4000	8 . 0		
101	9.09	68	2.18	4000	9 . 0		
82	11.15	84	1.87	4000	1 1 .		
74	12.37	93	1.71	4000	1 2 .		
65	14.05	106	1.51	4000	1 4 .		
58	15.97	120	1.33	4000	1 6 .		
52	17.58	132	1.21	3833	1 8 .		
45	20.23	152	1.05	3341	2 0 .		
42	21.99	165	0.97	3023	2 2 .		
35	26.4	198	0.81	2141	2 8 .		
166	5.55	41	3.8	4000	M 0 3 2 2 5 . 6 _ M _ _ _ _ . 7 5 C - -	26.5	90S
146	6.3	47	3.5	4000	6 . 3		
115	8	60	3.02	4000	8 . 0		
101	9.09	68	2.77	4000	9 . 0		
82	11.15	84	2.41	4000	1 1 .		
74	12.37	93	2.24	4000	1 2 .		
65	14.05	106	1.97	4000	1 4 .		
58	15.97	120	1.74	4000	1 6 .		
52	17.58	132	1.57	3801	1 8 .		
45	20.23	152	1.37	3306	2 0 .		
42	21.99	165	1.26	2971	2 2 .		
35	26.4	198	1.05	2141	2 8 .		
29	31.68	237	0.88	1521	3 2 .		
73	12.54	94	3.44	6590	M 0 4 2 2 1 2 . _ M _ _ _ _ . 7 5 C - -	35.5	90S
63	14.58	110	3.07	6880	1 4 .		
56	16.31	123	2.75	7100	1 6 .		
53	17.39	131	2.57	7050	1 8 .		
45	20.61	155	2.17	6996	2 0 .		
42	22	166	2.03	6915	2 2 .		
34	27.3	205	1.65	6186	2 8 .		
29	32.19	242	1.39	6429	3 2 .		
26	35.25	265	1.28	6093	3 6 .		
21	43.2	324	1.04	5229	4 5 .		
19	48.15	360	0.94	5497	5 0 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.75 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
56	16.31	123	3.65	6381	M 0 5 2 2 1 6 . _ M _ _ _ . 7 5 C - -	36.5	90S
53	17.39	131	3.42	6708	1 8 .		
45	20.61	155	2.89	6755	2 0 .		
42	22	166	2.71	6628	2 2 .		
34	27.3	205	2.18	6145	2 8 .		
29	32.19	242	1.85	5704	3 2 .		
26	35.25	264	1.7	5704	3 6 .		
21	43.2	324	1.25	5192	4 5 .		
19	48.15	360	1.05	4778	5 0 .		
16	58.38	434	1.03	3829	M 0 5 3 2 5 6 . _ M _ _ _ . 7 5 C - -	37.5	90S
14	64.29	479	0.94	3050	6 3 .		
12	73.95	551	0.82	2739	7 1 .		
36	25.51	192	3.25	7200	M 0 6 2 2 2 2 . _ M _ _ _ . 7 5 C - -	41.5	90S
34	27.24	205	3.04	7200	2 8 .		
27	33.8	255	2.45	7200	3 2 .		
23	39.86	300	2.08	7010	3 6 .		
21	43.64	328	1.9	6813	4 5 .		
17	53.49	401	1.35	7193	5 0 .		
15	59.61	447	1.05	6584	5 6 .		
13	72.28	538	1.16	7200	M 0 6 3 2 6 3 . _ M _ _ _ . 7 5 C - -	42.5	90S
12	79.6	593	1.05	6400	7 1 .		
10	91.56	682	0.92	4888	8 0 .		
9.2	99.54	741	0.84	3882	1 0 0		
29	32.12	241	3.59	9420	M 0 7 2 2 3 2 . _ M _ _ _ . 7 5 C - -	48.5	90S
26	35.17	264	3.28	9420	3 6 .		
22	42.21	315	2.75	9183	4 5 .		
19	48.56	363	1.93	9043	5 0 .		
17	53.96	402	1.48	9208	5 6 .		
16	58.95	439	1.97	8355	M 0 7 3 2 5 6 . _ M _ _ _ . 7 5 C - -	53.5	90S
15	62.83	468	1.85	8042	6 3 .		
12	74.47	556	1.56	7121	7 1 .		
12	79.51	590	1.47	6721	8 0 .		
9.3	98.66	733	1.18	6637	1 0 0		
7.9	116.34	864	1	4794	1 1 2		
7.2	127.39	946	0.92	4794	1 2 5		
16	55.8	416	3.72	20000	M 0 8 2 2 5 6 . _ M _ _ _ . 7 5 C - -	81.5	90S
14	66.02	490	3.36	20000	M 0 8 3 2 6 3 . _ M _ _ _ . 7 5 C - -	81.5	90S
12	74.69	556	2.96	20000	7 1 .		
11	84.31	626	2.63	20000	8 0 .		
9	102.2	759	2.17	18367	1 0 0		
7.7	119.19	884	1.87	17935	1 1 2		
7	130.92	970	1.7	17575	1 2 5		
5.7	160.45	1195	1.38	17044	1 6 0		
5.3	175.21	1299	1.27	16406	1 8 0		
4.6	201.75	1491	1.11	15789	2 0 0		
4	228.91	1665	0.82	18916	M 0 8 4 2 2 2 5 _ M _ _ _ . 7 5 C - -	112.5	90S
7.9	116.55	870	3.28	29500	M 0 9 3 1 1 1 2 _ M _ _ _ . 7 5 C - -	131.5	90S
7.2	128.66	960	2.98	29500	1 2 5		
6.3	145.2	1079	2.29	29442	1 4 0		
5.7	160.29	1193	2.07	29330	1 6 0		
4	231.06	1696	1.56	25710	M 0 9 4 1 2 2 5 _ M _ _ _ . 7 5 C - -	156.5	90S
3.6	258.09	1892	1.51	24951	2 5 0		
3.1	300.18	2200	1.3	24951	2 8 0		
2.7	335.85	2457	1.16	24951	3 0 0		
2.6	357.95	2621	1.09	24951	3 6 0		
2.2	424.23	3103	0.92	24951	4 0 0		
2	471.32	3444	0.83	24951	4 5 0		
4.2	220.22	1608	2.74	41580	M 1 0 4 1 2 2 5 _ M _ _ _ . 7 5 C - -	217.5	90S
3.8	242.24	1768	2.49	41580	2 5 0		
3.3	278.36	2031	2.17	41580	2 8 0		
2.9	315.65	2300	1.92	41580	3 0 0		
2.6	348.16	2538	1.74	41580	3 6 0		
2.3	398.71	2904	1.52	41580	4 0 0		
2.1	443.06	3224	1.37	41580	4 5 0		
1.8	500.94	3642	1.21	41580	5 0 0		
1.6	580.78	4217	1.05	41580	6 5 0		
1.3	692.72	5022	0.88	41580	7 3 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

0.75 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
4.1	226.98	1653	3.84	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ . 7 5 C - -	292.5	90S
3.7	249.68	1818	3.49	64632	2 5 0		
3.2	286.9	2087	3.04	64632	2 8 0		
2.8	325.33	2363	2.69	64632	3 0 0		
2.6	358.84	2608	2.43	64632	3 6 0		
2.2	410.95	2985	2.13	64632	4 0 0		
2	463.22	3363	1.89	64632	4 5 0		
1.8	523.74	3799	1.67	64632	5 0 0		
1.5	607.22	4400	1.44	64632	6 5 0		
1.3	724.25	5239	1.21	64632	7 3 0		
1.1	858.69	6184	1.03	64632	8 6 0		
0.9	1024.19	7366	0.86	64632	1 0 C		
2.4	390.06	2836	3.74	80613	M 1 4 4 1 3 6 0 _ M _ _ _ _ . 7 5 C - -	408.5	90S
2.1	446.71	3245	3.26	80613	4 0 0		
1.9	492.49	3575	3.01	80613	4 5 0		
1.7	556.83	4038	2.67	80613	5 0 0		
1.4	645.58	4676	2.3	80613	6 5 0		
1.2	770.01	5568	1.93	80613	7 3 0		
1.1	801.52	5787	1.84	80613	8 6 0		
0.99	929.27	6702	1.59	80613	1 0 C		
0.83	1108.37	7982	1.33	80613	1 1 C		
0.76	1213.79	8732	1.22	80613	1 3 C		
0.61	1502.21	10781	0.94	80711	1 5 C		

1.1 kW

4 POLE

376	3.75	26	2.2	1543	M 0 1 2 2 3 . 6 _ M _ _ _ _ 1 . 1 A - -	23.5	90S
278	5.07	36	1.85	1596	5 . 0		
245	5.76	41	1.72	1613	5 . 6		
216	6.53	47	1.59	1496	6 . 3		
169	8.35	60	1.32	1459	8 . 0		
157	9	65	1.24	1452	9 . 0		
124	11.36	82	1.03	1490	1 1 .		
109	12.88	92	0.94	1490	1 2 .		
96	14.71	106	0.85	1150	1 4 .		
393	3.59	25	3.88	3750	M 0 2 2 2 3 . 6 _ M _ _ _ _ 1 . 1 A - -	26.5	90S
280	5.03	36	3.19	3950	5 . 0		
254	5.55	40	3.01	4000	5 . 6		
224	6.3	45	2.79	3992	6 . 3		
176	8	57	2.36	4000	8 . 0		
155	9.09	65	2.13	4000	9 . 0		
126	11.15	80	1.8	4000	1 1 .		
114	12.37	89	1.66	4000	1 2 .		
100	14.05	101	1.51	4000	1 4 .		
88	15.97	115	1.39	3913	1 6 .		
80	17.58	126	1.26	3767	1 8 .		
70	20.23	145	1.1	3534	2 0 .		
64	21.99	158	1.01	4000	2 2 .		
53	26.4	189	0.84	3740	2 8 .		
280	5.03	36	3.73	3920	M 0 3 2 2 5 . 0 _ M _ _ _ _ 1 . 1 A - -	26.5	90S
254	5.55	39	3.51	3970	5 . 6		
224	6.3	45	3.24	3990	6 . 3		
176	8	57	2.78	4000	8 . 0		
155	9.09	65	2.55	4000	9 . 0		
126	11.15	80	2.23	4000	1 1 .		
114	12.37	89	2.09	4000	1 2 .		
100	14.05	101	1.91	4000	1 4 .		
88	15.97	114	1.79	3931	1 6 .		
80	17.58	126	1.64	3836	1 8 .		
70	20.23	145	1.43	3498	2 0 .		
64	21.99	158	1.32	3303	2 2 .		
53	26.4	189	1.11	2459	2 8 .		
45	31.68	227	0.92	2680	3 2 .		
40	35.69	255	0.82	1870	3 6 .		
112	12.54	90	3.13	5720	M 0 4 2 2 1 2 . _ M _ _ _ _ 1 . 1 A - -	35.5	90S
97	14.58	105	2.8	5940	1 4 .		
86	16.31	117	2.6	6130	1 6 .		
81	17.39	125	2.48	6229	1 8 .		
68	20.61	148	2.15	6512	2 0 .		
64	22	158	2.03	6624	2 2 .		
52	27.3	196	1.71	6794	2 8 .		
44	32.19	231	1.46	6991	3 2 .		
40	35.25	253	1.33	7055	3 6 .		
33	43.2	310	1.09	6568	4 5 .		
29	48.15	344	0.98	7140	5 0 .		
24	58.38	414	0.82	6400	M 0 4 3 2 5 6 . _ M _ _ _ _ 1 . 1 A - -	36.5	90S

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.1 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
86	16.31	117	3.82	5743	M 0 5 2 2 1 6 . _ M _ _ _ _ 1 . 1 A - -	36.5	90S
81	17.39	125	3.58	5832	1 8 .		
68	20.61	148	3.02	6042	2 0 .		
64	22	159	2.83	5957	2 2 .		
52	27.3	197	2.28	6188	2 8 .		
44	32.19	232	1.94	6307	3 2 .		
40	35.25	253	1.78	6015	3 6 .		
33	43.2	310	1.14	6279	4 5 .		
29	48.15	345	1.05	5712	5 0 .		
24	58.38	417	1.08	5860	M 0 5 3 2 5 6 . _ M _ _ _ _ 1 . 1 A - -	37.5	90S
22	64.29	458	0.98	4980	6 3 .		
19	73.95	526	0.85	3570	7 1 .		
55	25.51	184	3.39	7200	M 0 6 2 2 2 2 . _ M _ _ _ _ 1 . 1 A - -	41.5	90S
52	27.24	196	3.18	7200	2 8 .		
42	33.8	244	2.56	7200	3 2 .		
35	39.86	286	2.18	7200	3 6 .		
32	43.64	314	1.99	7200	4 5 .		
26	53.49	383	1.37	7200	5 0 .		
24	59.61	428	1.1	7200	5 6 .		
20	72.28	513	1.22	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ 1 . 1 A - -	42.5	90S
18	79.6	568	1.1	7200	7 1 .		
15	91.56	649	0.96	7200	8 0 .		
14	99.54	708	0.88	7200	1 0 0		
44	32.12	231	3.63	9517	M 0 7 2 2 3 2 . _ M _ _ _ _ 1 . 1 A - -	48.5	90S
40	35.17	252	3.35	9379	3 6 .		
33	42.21	302	2.86	9338	4 5 .		
29	48.56	347	2.02	9397	5 0 .		
26	53.96	385	1.55	10000	5 6 .		
24	58.95	420	1.79	8510	M 0 7 3 2 5 6 . _ M _ _ _ _ 1 . 1 A - -	53.5	90S
22	62.83	446	1.72	8210	6 3 .		
19	74.47	529	1.54	8500	7 1 .		
18	79.51	564	1.48	8043	8 0 .		
14	98.66	701	1.24	6317	1 0 0		
12	116.34	825	1.05	5740	1 1 2		
11	127.39	900	0.96	4490	1 2 5		
25	55.8	399	3.85	20000	M 0 8 2 2 5 6 . _ M _ _ _ _ 1 . 1 A - -	81.5	90S
23	60.33	427	3.74	20000	M 0 8 3 2 5 6 . _ M _ _ _ _ 1 . 1 A - -	81.5	90S
21	66.02	470	3.51	20000	6 3 .		
19	74.69	530	3.11	20000	7 1 .		
17	84.31	598	2.76	20000	8 0 .		
14	102.2	726	2.27	18631	1 0 0		
12	119.19	844	1.95	18177	1 1 2		
11	130.92	928	1.78	17391	1 2 5		
8.8	160.45	1138	1.45	18378	1 6 0		
8	175.21	1244	1.33	17221	1 8 0		
7	201.75	1424	1.16	15194	2 0 0		
6.2	228.91	1588	0.86	18916	M 0 8 4 2 2 2 5 _ M _ _ _ _ 1 . 1 A - -	112.5	90S
5.4	258.98	1795	0.82	17870	2 5 0		
15	93.92	669	3.94	29600	M 0 9 3 1 9 0 . _ M _ _ _ _ 1 . 1 A - -	131.5	90S
14	103.68	739	3.57	29600	1 0 0		
12	116.55	831	3.44	29500	1 1 2		
11	128.66	919	3.11	29500	1 2 5		
10	145.2	1031	2.4	29413	1 4 0		
8.8	160.29	1135	2.17	29397	1 6 0		
6.1	231.06	1621	1.63	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ 1 . 1 A - -	156.5	90S
5.5	258.09	1808	1.58	24951	2 5 0		
4.7	300.18	2103	1.36	24951	2 8 0		
4.2	335.85	2349	1.22	24951	3 0 0		
3.9	357.95	2506	1.14	24951	3 6 0		
3.3	424.23	2968	0.96	24951	4 0 0		
3	471.32	3293	0.87	24951	4 5 0		
2.8	503.22	3514	0.81	24951	5 0 0		
9	156.57	1109	3.76	49600	M 1 0 3 1 1 6 0 _ M _ _ _ _ 1 . 1 A - -	179.5	90S
6.4	220.22	1536	2.87	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 1 . 1 A - -	217.5	90S
5.8	242.24	1689	2.61	41580	2 5 0		
5.1	278.36	1940	2.27	41580	2 8 0		
4.5	315.65	2198	2.01	41580	3 0 0		
4	348.16	2426	1.82	41580	3 6 0		
3.5	398.71	2776	1.59	41580	4 0 0		
3.2	443.06	3081	1.43	41580	4 5 0		
2.8	500.94	3481	1.27	41580	5 0 0		
2.4	580.78	4033	1.09	41580	6 5 0		
2	692.72	4804	0.92	41580	7 3 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.1 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
5.6	249.68	1737	3.65	64632	M 1 3 4 1 2 5 0 _ M _ _ _ _ 1 . 1 A - -	292.5	90S
4.9	286.9	1995	3.18	64632	2 8 0		
4.3	325.33	2260	2.81	64632	3 0 0		
3.9	358.84	2494	2.55	64632	3 6 0		
3.4	410.95	2854	2.22	64632	4 0 0		
3	463.22	3216	1.97	64632	4 5 0		
2.7	523.74	3633	1.75	64632	5 0 0		
2.3	607.22	4209	1.51	64632	6 5 0		
1.9	724.25	5013	1.27	64632	7 3 0		
1.6	858.69	5911	1.07	64632	8 6 0		
1.4	1024.19	7043	0.9	64632	1 0 C		
1.2	1140.7	7829	0.81	64632	1 1 C		
3.6	390.06	2713	3.91	80613	M 1 4 4 1 3 6 0 _ M _ _ _ _ 1 . 1 A - -	408.5	90S
3.2	446.71	3105	3.41	80613	4 0 0		
2.9	492.49	3420	3.15	80613	4 5 0		
2.5	556.83	3864	2.79	80613	5 0 0		
2.2	645.58	4475	2.41	80613	6 5 0		
1.8	770.01	5330	2.02	80613	7 3 0		
1.8	801.52	5534	1.93	80613	8 6 0		
1.5	929.27	6410	1.66	80613	1 0 C		
1.3	1108.37	7636	1.4	80613	1 1 C		
1.2	1213.79	8356	1.28	80613	1 3 C		
0.94	1502.21	10314	0.98	80711	1 5 C		
0.78	1802.65	12351	0.82	80711	1 8 C		

1.1 kW

6 POLE

247	3.75	41	1.66	1500	M 0 1 2 2 3 . 6 _ M _ _ _ _ 1 . 1 C - -	24.5	90L
183	5.07	55	1.36	1490	5 . 0		
161	5.76	63	1.24	1480	5 . 6		
142	6.53	72	1.11	1490	6 . 3		
111	8.35	91	0.93	1490	8 . 0		
103	9	98	0.88	1380	9 . 0		
258	3.59	39	2.92	4000	M 0 2 2 2 3 . 6 _ M _ _ _ _ 1 . 1 C - -	27.5	90L
184	5.03	55	2.37	4000	5 . 0		
167	5.55	61	2.19	4000	5 . 6		
147	6.3	69	1.99	4000	6 . 3		
116	8	88	1.65	4000	8 . 0		
102	9.09	100	1.5	4000	9 . 0		
83	11.15	123	1.28	4000	1 1 .		
75	12.37	136	1.17	4000	1 2 .		
66	14.05	154	1.03	4000	1 4 .		
58	15.97	175	0.91	4000	1 6 .		
53	17.58	193	0.83	3680	1 8 .		
258	3.59	39	3.4	4000	M 0 3 2 2 2 3 . 6 _ M _ _ _ _ 1 . 1 C - -	27.5	90L
184	5.03	55	2.77	4000	5 . 0		
167	5.55	61	2.6	4000	5 . 6		
147	6.3	69	2.4	4000	6 . 3		
116	8	88	2.07	4000	8 . 0		
102	9.09	99	1.9	4000	9 . 0		
83	11.15	122	1.66	4000	1 1 .		
75	12.37	136	1.53	4000	1 2 .		
66	14.05	154	1.35	4000	1 4 .		
58	15.97	175	1.19	4000	1 6 .		
53	17.58	193	1.08	3680	1 8 .		
46	20.23	222	0.94	2880	2 0 .		
42	21.99	241	0.87	2340	2 2 .		
74	12.54	137	2.36	6370	M 0 4 2 2 1 2 . _ M _ _ _ _ 1 . 1 C - -	36.5	90L
63	14.58	160	2.1	6624	1 4 .		
57	16.31	179	1.88	6815	1 6 .		
53	17.39	191	1.76	6790	1 8 .		
45	20.61	226	1.49	6640	2 0 .		
42	22	242	1.39	6416	2 2 .		
34	27.3	299	1.13	5253	2 8 .		
29	32.19	354	0.95	5720	3 2 .		
26	35.25	386	0.87	5074	3 6 .		
74	12.54	138	3.08	5876	M 0 5 2 2 1 2 . _ M _ _ _ _ 1 . 1 C - -	37.5	90L
63	14.58	161	2.79	6072	1 4 .		
57	16.31	179	2.51	6216	1 6 .		
53	17.39	191	2.35	6477	1 8 .		
45	20.61	227	1.98	6346	2 0 .		
42	22	242	1.86	6103	2 2 .		
34	27.3	300	1.5	5173	2 8 .		
29	32.19	354	1.27	4327	3 2 .		
26	35.25	386	1.17	4327	3 6 .		
21	43.2	473	0.86	3343	4 5 .		
51	18.05	199	3	7200	M 0 6 2 2 1 6 . _ M _ _ _ _ 1 . 1 C - -	42.5	90L
46	20.2	222	2.81	7200	1 8 .		
43	21.53	237	2.64	7200	2 0 .		
36	25.51	281	2.22	7200	2 2 .		
34	27.24	300	2.08	7200	2 8 .		
27	33.8	372	1.68	7200	3 2 .		
23	39.86	438	1.43	6680	3 6 .		
21	43.64	479	1.31	6136	4 5 .		
17	53.49	585	0.93	7182	5 0 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.1 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
45	20.54	225	3.71	8987	M 0 7 2 2 2 0 . _ M _ _ _ _ 1 . 1 C - -	49.5	90L
40	23.23	255	3.32	8888	2 2 .		
34	26.93	295	2.91	8888	2 8 .		
29	32.12	352	2.46	8405	3 2 .		
26	35.17	385	2.25	8405	3 6 .		
22	42.21	460	1.88	7755	4 5 .		
19	48.56	529	1.32	7370	5 0 .		
17	53.96	586	1.02	7823	5 6 .		
16	58.95	641	1.35	6840	M 0 7 3 2 5 6 . _ M _ _ _ _ 1 . 1 C - -	54.5	90L
15	62.83	683	1.27	6240	6 3 .		
12	74.47	812	1.07	4470	7 1 .		
12	79.51	861	1.01	3701	8 0 .		
9.4	98.66	1070	0.81	3539	1 0 0		
21	44.38	486	3.39	20000	M 0 8 2 2 4 5 . _ M _ _ _ _ 1 . 1 C - -	82.5	90L
19	48.46	530	3.11	20000	5 0 .		
17	55.8	608	2.55	18720	5 6 .		
15	60.33	654	2.52	20000	M 0 8 3 2 5 6 . _ M _ _ _ _ 1 . 1 C - -	82.5	90L
14	66.02	716	2.3	18126	6 3 .		
12	74.69	811	2.03	17846	7 1 .		
11	84.31	914	1.8	17539	8 0 .		
9.1	102.2	1108	1.49	15510	1 0 0		
7.8	119.19	1290	1.28	14323	1 1 2		
7.1	130.92	1416	1.17	13333	1 2 5		
5.8	160.45	1744	0.95	11871	1 6 0		
5.3	175.21	1895	0.87	10117	1 8 0		
15	61.13	669	3.69	29600	M 0 9 2 1 6 3 . _ M _ _ _ _ 1 . 1 C - -	123.5	90L
13	68.74	751	3.23	29600	7 1 .		
11	82.51	899	3.18	29500	M 0 9 3 1 8 0 . _ M _ _ _ _ 1 . 1 C - -	132.5	90L
10	93.92	1021	2.58	29400	9 0 .		
8.9	103.68	1128	2.34	29300	1 0 0		
7.9	116.55	1270	2.25	29282	1 1 2		
7.2	128.66	1401	2.04	29258	1 2 5		
6.4	145.2	1575	1.57	29166	1 4 0		
5.8	160.29	1740	1.42	29033	1 6 0		
4	231.06	2475	1.07	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ 1 . 1 C - -	157.5	90L
3.6	258.09	2761	1.03	24951	2 5 0		
3.1	300.18	3209	0.89	24951	2 8 0		
7.1	129.94	1410	3.13	49100	M 1 0 3 1 1 2 5 _ M _ _ _ _ 1 . 1 C - -	180.5	90L
6.8	135.88	1473	2.83	49100	1 4 0		
5.9	156.57	1694	2.46	48700	1 6 0		
4.2	220.22	2346	1.88	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 1 . 1 C - -	218.5	90L
3.8	242.24	2580	1.71	41580	2 5 0		
3.3	278.36	2963	1.49	41580	2 8 0		
2.9	315.65	3355	1.32	41580	3 0 0		
2.7	348.16	3702	1.19	41580	3 6 0		
2.3	398.71	4237	1.04	41580	4 0 0		
2.1	443.06	4703	0.94	41580	4 5 0		
1.8	500.94	5312	0.83	41580	5 0 0		
4.1	226.98	2411	2.63	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 1 . 1 C - -	293.5	90L
3.7	249.68	2652	2.39	64632	2 5 0		
3.2	286.9	3045	2.08	64632	2 8 0		
2.8	325.33	3448	1.84	64632	3 0 0		
2.6	358.84	3805	1.67	64632	3 6 0		
2.3	410.95	4354	1.46	64632	4 0 0		
2	463.22	4906	1.29	64632	4 5 0		
1.8	523.74	5542	1.15	64632	5 0 0		
1.5	607.22	6418	0.99	64632	6 5 0		
1.3	724.25	7643	0.83	64632	7 3 0		
3.4	271.4	2884	3.67	80613	M 1 4 4 1 2 5 0 _ M _ _ _ _ 1 . 1 C - -	409.5	90L
3	311.86	3311	3.2	80613	2 8 0		
2.6	353.64	3749	2.83	80613	3 0 0		
2.4	390.06	4137	2.56	80613	3 6 0		
2.1	446.71	4734	2.24	80613	4 0 0		
1.9	492.49	5215	2.07	80613	4 5 0		
1.7	556.83	5891	1.83	80613	5 0 0		
1.4	645.58	6822	1.58	80613	6 5 0		
1.2	770.01	8123	1.33	80613	7 3 0		
1.2	801.52	8442	1.26	80613	8 6 0		
0	929.27	9777	1.09	80613	1 0 C		
0.83	1108.37	11643	0.92	80613	1 1 C		
0.76	1213.79	12739	0.84	80613	1 3 C		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.5 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
379	3.75	36	1.63	1484	M 0 1 2 2 3 . 6 _ M _ _ _ _ 1 . 5 A - -	24.5	90L
280	5.07	49	1.36	1517	5 . 0		
246	5.76	56	1.27	1521	5 . 6		
218	6.53	63	1.18	1340	6 . 3		
170	8.35	81	0.97	1280	8 . 0		
158	9	88	0.91	1270	9 . 0		
396	3.59	34	2.87	3728	M 0 2 2 2 3 . 6 _ M _ _ _ _ 1 . 5 A - -	27.5	90L
282	5.03	49	2.36	3917	5 . 0		
256	5.55	54	2.23	3967	5 . 6		
225	6.3	61	2.06	3984	6 . 3		
178	8	78	1.74	4000	8 . 0		
156	9.09	88	1.57	4000	9 . 0		
127	11.15	108	1.33	4000	1 1 .		
115	12.37	120	1.23	4000	1 2 .		
101	14.05	137	1.12	4000	1 4 .		
89	15.97	156	1.03	3850	1 6 .		
81	17.58	171	0.93	3640	1 8 .		
70	20.23	197	0.81	3280	2 0 .		
396	3.59	34	3.38	3690	M 0 3 2 2 3 . 6 _ M _ _ _ _ 1 . 5 A - -	27.5	90L
282	5.03	48	2.76	3898	5 . 0		
256	5.55	54	2.59	3948	5 . 6		
225	6.3	61	2.4	3982	6 . 3		
178	8	78	2.06	4000	8 . 0		
156	9.09	89	1.89	4000	9 . 0		
127	11.15	108	1.65	4000	1 1 .		
115	12.37	120	1.54	4000	1 2 .		
101	14.05	137	1.41	4000	1 4 .		
89	15.97	155	1.32	3901	1 6 .		
81	17.58	171	1.21	3764	1 8 .		
70	20.23	197	1.06	3280	2 0 .		
65	21.99	214	0.97	3000	2 2 .		
54	26.4	256	0.82	1789	2 8 .		
113	12.54	122	2.31	5611	M 0 4 2 2 1 2 . _ M _ _ _ _ 1 . 5 A - -	36.5	90L
97	14.58	142	2.07	5814	1 4 .		
87	16.31	159	1.92	5915	1 6 .		
82	17.39	170	1.83	6000	1 8 .		
69	20.61	201	1.59	6240	2 0 .		
65	22	215	1.5	6333	2 2 .		
52	27.3	265	1.26	6499	2 8 .		
44	32.19	313	1.08	6840	3 2 .		
40	35.25	342	0.99	6950	3 6 .		
33	43.2	420	0.8	6110	4 5 .		
113	12.54	122	3.47	5158	M 0 5 2 2 1 2 . _ M _ _ _ _ 1 . 5 A - -	37.5	90L
97	14.58	143	3.15	5238	1 4 .		
87	16.31	159	2.82	5630	1 6 .		
82	17.39	170	2.64	5710	1 8 .		
69	20.61	201	2.23	5869	2 0 .		
65	22	215	2.09	5651	2 2 .		
52	27.3	267	1.68	5575	2 8 .		
44	32.19	314	1.43	5658	3 2 .		
40	35.25	342	1.31	5153	3 6 .		
33	43.2	420	0.84	5610	4 5 .		
79	18.05	176	3.37	7200	M 0 6 2 2 1 6 . _ M _ _ _ _ 1 . 5 A - -	42.5	90L
70	20.2	197	3.17	7200	1 8 .		
66	21.53	210	2.97	7200	2 0 .		
56	25.51	249	2.51	7200	2 2 .		
52	27.24	266	2.35	7200	2 8 .		
42	33.8	330	1.89	7200	3 2 .		
36	39.86	388	1.61	7200	3 6 .		
33	43.64	426	1.47	7200	4 5 .		
27	53.49	519	1.01	7200	5 0 .		
24	59.61	580	0.81	7200	5 6 .		
20	72.28	694	0.9	7200	M 0 6 3 2 6 3 . _ M _ _ _ _ 1 . 5 A - -	43.5	90L

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.5 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
61	23.23	226	3.59	9013	M 0 7 2 2 2 2 . _ M _ _ _ _ 1 . 5 A - -	49.5	90L
53	26.93	262	3.14	8800	2 8 .		
44	32.12	313	2.68	8966	3 2 .		
40	35.17	342	2.47	8670	3 6 .		
34	42.21	409	2.11	8583	4 5 .		
29	48.56	470	1.49	8708	5 0 .		
26	53.96	521	1.14	10000	5 6 .		
24	58.95	568	1.33	7426	M 0 7 3 2 5 6 . _ M _ _ _ _ 1 . 5 A - -	54.5	90L
23	62.83	604	1.27	6908	6 3 .		
19	74.47	717	1.14	7410	7 1 .		
18	79.51	764	1.09	6620	8 0 .		
14	98.66	949	0.91	3640	1 0 0		
32	44.38	432	3.82	20000	M 0 8 2 2 4 5 . _ M _ _ _ _ 1 . 5 A - -	82.5	90L
29	48.46	471	3.5	20000	5 0 .		
25	55.8	541	2.85	19737	5 6 .		
24	60.33	579	2.76	19600	M 0 8 3 2 5 6 . _ M _ _ _ _ 1 . 5 A - -	82.5	90L
22	66.02	636	2.59	19310	6 3 .		
19	74.69	717	2.3	18882	7 1 .		
17	84.31	810	2.04	19178	8 0 .		
14	102.2	983	1.68	17066	1 0 0		
12	119.19	1143	1.44	16851	1 1 2		
11	130.92	1257	1.31	15494	1 2 5		
8.9	160.45	1541	1.07	17200	1 6 0		
8.1	175.21	1684	0.98	15200	1 8 0		
7	201.75	1929	0.86	11700	2 0 0		
26	55.18	536	3.75	29700	M 0 9 2 1 5 6 . _ M _ _ _ _ 1 . 5 A - -	123.5	90L
21	68.74	668	3.7	29600	7 1 .		
17	82.51	797	3.58	29600	M 0 9 3 1 8 0 . _ M _ _ _ _ 1 . 5 A - -	132.5	90L
15	93.92	906	2.91	29462	9 0 .		
14	103.68	1000	2.64	29434	1 0 0		
12	116.55	1126	2.54	29348	1 1 2		
11	128.66	1244	2.3	29320	1 2 5		
10	145.2	1396	1.77	29200	1 4 0		
8.9	160.29	1537	1.61	29166	1 6 0		
6.1	231.06	2195	1.2	25710	M 0 9 4 1 2 2 5 _ M _ _ _ _ 1 . 5 A - -	157.5	90L
5.5	258.09	2449	1.17	24951	2 5 0		
4.7	300.18	2847	1	24951	2 8 0		
4.2	335.85	3181	0.9	24951	3 0 0		
4	357.95	3393	0.84	24951	3 6 0		
13	109.97	1059	3.56	49600	M 1 0 3 1 1 0 0 _ M _ _ _ _ 1 . 5 A - -	180.5	90L
11	129.94	1250	3.53	49300	1 2 5		
10	135.88	1303	3.19	49300	1 4 0		
9.1	156.57	1502	2.77	48965	1 6 0		
6.4	220.22	2080	2.12	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 1 . 5 A - -	218.5	90L
5.9	242.24	2287	1.93	41580	2 5 0		
5.1	278.36	2628	1.68	41580	2 8 0		
4.5	315.65	2976	1.48	41580	3 0 0		
4.1	348.16	3284	1.34	41580	3 6 0		
3.6	398.71	3760	1.17	41580	4 0 0		
3.2	443.06	4172	1.06	41580	4 5 0		
2.8	500.94	4714	0.94	41580	5 0 0		
2.4	580.78	5461	0.81	41580	6 5 0		
6.3	226.98	2139	2.97	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 1 . 5 A - -	293.5	90L
5.7	249.68	2352	2.7	64632	2 5 0		
4.9	286.9	2702	2.35	64632	2 8 0		
4.4	325.33	3060	2.07	64632	3 0 0		
4	358.84	3377	1.88	64632	3 6 0		
3.5	410.95	3865	1.64	64632	4 0 0		
3.1	463.22	4355	1.46	64632	4 5 0		
2.7	523.74	4920	1.29	64632	5 0 0		
2.3	607.22	5699	1.11	64632	6 5 0		
2	724.25	6788	0.94	64632	7 3 0		
4.6	311.86	2940	3.6	80613	M 1 4 4 1 2 8 0 _ M _ _ _ _ 1 . 5 A - -	409.5	90L
4	353.64	3329	3.18	80613	3 0 0		
3.6	390.06	3673	2.88	80613	3 6 0		
3.2	446.71	4204	2.52	80613	4 0 0		
2.9	492.49	4631	2.33	80613	4 5 0		
2.6	556.83	5232	2.06	80613	5 0 0		
2.2	645.58	6059	1.78	80613	6 5 0		
1.8	770.01	7217	1.49	80613	7 3 0		
1.8	801.52	7494	1.42	80613	8 6 0		
1.5	929.27	8680	1.23	80613	1 0 C		
1.3	1108.37	10340	1.03	80613	1 1 C		
1.2	1213.79	11314	0.94	80613	1 3 C		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.5 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
251	3.75	56	1.21	980	M 0 1 2 2 3 . 6 _ M _ _ _ _ 1 . 5 C - -	36	100L
186	5.07	76	1.00	980	5 . 0		
163	5.76	86	0.91	980	5 . 6		
144	6.53	97	0.82	980	6 . 3		
262	3.59	54	2.15	3100	M 0 2 2 2 3 . 6 _ M _ _ _ _ 1 . 5 C - -	39	100L
187	5.03	75	1.74	3100	5 . 0		
169	5.55	83	1.62	3100	5 . 6		
149	6.30	94	1.47	3100	6 . 3		
118	8.00	119	1.21	3100	8 . 0		
103	9.09	136	1.11	3100	9 . 0		
84	11.15	167	0.95	2600	1 1 .		
76	12.37	185	0.87	2300	1 2 .		
262	3.59	54	2.50	2300	M 0 3 2 2 3 . 6 _ M _ _ _ _ 1 . 5 C - -	39	100L
187	5.03	75	2.04	2300	5 . 0		
169	5.55	83	1.92	2300	5 . 6		
149	6.30	94	1.78	2300	6 . 3		
118	8.00	119	1.52	2300	8 . 0		
103	9.09	136	1.40	2300	9 . 0		
84	11.15	167	1.22	2300	1 1 .		
76	12.37	185	1.13	2300	1 2 .		
67	14.05	210	1.00	2300	1 4 .		
59	15.97	238	0.88	2050	1 6 .		
53	17.58	263	0.80	1900	1 8 .		
184	5.04	75	3.59	5180	M 0 4 2 2 5 . 0 _ M _ _ _ _ 1 . 5 C - -	49	100L
164	5.65	85	3.36	5270	5 . 6		
146	6.34	95	3.08	5360	6 . 3		
115	8.05	120	2.56	5530	8 . 0		
101	9.13	137	2.32	5670	9 . 0		
85	10.89	163	2.04	5920	1 1 .		
74	12.54	188	1.73	6119	1 2 .		
63	14.58	219	1.54	6331	1 4 .		
57	16.31	244	1.38	6489	1 6 .		
53	17.39	261	1.29	6491	1 8 .		
45	20.61	309	1.09	6232	2 0 .		
42	22	330	1.02	5846	2 2 .		
34	27.3	407	0.83	4186	2 8 .		
115	8.05	121	3.71	5060	M 0 5 2 2 8 . 0 _ M _ _ _ _ 1 . 5 C - -	49	100L
101	9.13	137	3.27	5460	9 . 0		
85	10.89	164	2.74	5700	1 1 .		
74	12.54	188	2.26	5732	1 2 .		
63	14.58	219	2.05	5904	1 4 .		
57	16.31	244	1.84	6028	1 6 .		
53	17.39	261	1.72	6212	1 8 .		
45	20.61	309	1.45	5878	2 0 .		
42	22	330	1.36	5501	2 2 .		
34	27.3	409	1.1	4063	2 8 .		
29	32.19	483	0.93	2754	3 2 .		
26	35.25	526	0.85	2754	3 6 .		
69	13.48	203	3.08	7200	M 0 6 2 2 1 2 . _ M _ _ _ _ 1 . 5 C - -	54	100L
60	15.52	233	2.26	7200	1 4 .		
51	18.05	271	2.2	7200	1 6 .		
46	20.2	303	2.06	7200	1 8 .		
43	21.53	323	1.93	7200	2 0 .		
36	25.51	383	1.63	7200	2 2 .		
34	27.24	409	1.53	7200	2 8 .		
27	33.8	507	1.23	7200	3 2 .		
23	39.86	597	1.05	6301	3 6 .		
21	43.64	654	0.96	5363	4 5 .		
64	14.34	215	3.75	8921	M 0 7 2 2 1 4 . _ M _ _ _ _ 1 . 5 C - -	62	100L
57	16.26	243	3.35	8727	1 6 .		
52	17.94	269	3.06	8543	1 8 .		
45	20.54	308	2.72	8251	2 0 .		
40	23.23	347	2.43	8080	2 2 .		
34	26.93	403	2.13	8080	2 8 .		
29	32.12	480	1.81	7246	3 2 .		
26	35.17	525	1.65	7246	3 6 .		
22	42.21	628	1.38	6122	4 5 .		
19	48.56	722	0.97	5457	5 0 .		
16	58.95	874	0.99	5110	M 0 7 3 2 5 6 . _ M _ _ _ _ 1 . 5 C - -	66	100L
15	62.83	931	0.93	4180	6 3 .		
28	32.97	493	3.35	20000	M 0 8 2 2 3 2 . _ M _ _ _ _ 1 . 5 C - -	94	100L
26	36.21	541	3.04	20000	3 6 .		
21	44.38	663	2.49	18642	4 5 .		
19	48.46	723	2.28	18360	5 0 .		
17	55.8	829	1.87	17258	5 6 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

1.5 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
15	60.33	891	1.85	18038	M 0 8 3 2 5 6 . _ M _ _ _ _ 1 . 5 C - -	95	100L
14	66.02	976	1.69	15984	6 3 .		
12	74.69	1107	1.49	15384	7 1 .		
11	84.31	1246	1.32	14726	8 0 .		
9.1	102.2	1510	1.09	12244	1 0 0		
7.8	119.19	1759	0.94	10194	1 1 2		
7.1	130.92	1931	0.85	8484	1 2 5		
17	55.18	822	2.37	29600	M 0 9 2 1 5 6 . _ M _ _ _ _ 1 . 5 C - -	135	100L
15	61.13	913	2.7	29472	6 3 .		
13	68.74	1025	2.37	29372	7 1 .		
15	59.85	889	2.97	29500	M 0 9 3 1 5 6 . _ M _ _ _ _ 1 . 5 C - -	144	100L
14	66.49	987	2.67	29400	6 3 .		
12	74.26	1104	2.59	29400	7 1 .		
11	82.51	1226	2.33	29318	8 0 .		
10	93.92	1393	1.89	29181	9 0 .		
8.9	103.68	1539	1.72	29081	1 0 0		
7.9	116.55	1732	1.65	29034	1 1 2		
7.2	128.66	1910	1.5	28982	1 2 5		
6.4	145.2	2148	1.15	28851	1 4 0		
5.8	160.29	2373	1.04	28693	1 6 0		
10	95.44	1414	2.67	49000	M 1 0 3 1 9 0 . _ M _ _ _ _ 1 . 5 C - -	193	100L
8.4	109.97	1630	2.31	48700	1 0 0		
8.2	112.77	1670	2.64	48700	1 1 2		
7.1	129.94	1923	2.29	48200	1 2 5		
6.8	135.88	2009	2.07	48136	1 4 0		
5.9	156.57	2310	1.81	47734	1 6 0		
4.2	220.22	3199	1.38	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 1 . 5 C - -	230	100L
3.8	242.24	3518	1.25	41580	2 5 0		
3.3	278.36	4040	1.09	41580	2 8 0		
2.9	315.65	4575	0.96	41580	3 0 0		
2.7	348.16	5049	0.87	41580	3 6 0		
7.3	126.62	1858	3.42	66800	M 1 3 3 1 1 2 5 _ M _ _ _ _ 1 . 5 C - -	263	100L
6.7	139.07	2035	3.17	66700	1 4 0		
6	154.89	2265	2.85	66700	1 6 0		
5.3	173.37	2547	2.49	66600	1 8 0		
5	184.46	2715	2.34	66500	2 0 0		
4.4	212.09	3113	2.07	66400	2 2 5		
4.1	226.98	3288	1.93	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 1 . 5 C - -	305	100L
3.7	249.68	3616	1.76	64632	2 5 0		
3.2	286.9	4153	1.53	64632	2 8 0		
2.8	325.33	4702	1.35	64632	3 0 0		
2.6	358.84	5188	1.22	64632	3 6 0		
2.3	410.95	5937	1.07	64632	4 0 0		
2	463.22	6691	0.95	64632	4 5 0		
1.8	523.74	7558	0.84	64632	5 0 0		
4.4	211.96	3101	3.26	80900	M 1 4 3 1 2 2 5 _ M _ _ _ _ 1 . 5 C - -	392	100L
3.7	246.73	3576	2.96	80613	M 1 4 4 1 2 2 5 _ M _ _ _ _ 1 . 5 C - -	421	100L
3.4	271.4	3932	2.69	80613	2 5 0		
3	311.86	4516	2.35	80613	2 8 0		
2.6	353.64	5112	2.07	80613	3 0 0		
2.4	390.06	5641	1.88	80613	3 6 0		
2.1	446.71	6455	1.64	80613	4 0 0		
1.9	492.49	7112	1.51	80613	4 5 0		
1.7	556.83	8034	1.34	80613	5 0 0		
1.4	645.58	9302	1.16	80613	6 5 0		
1.2	770.01	11077	0.97	80613	7 3 0		
1.2	801.52	11512	0.93	80613	8 6 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

2.2 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
379	3.75	53	1.11	1380	M 0 1 2 2 3 . 6 _ M _ _ _ _ 2 . 2 A - -	30	100L
280	5.07	72	0.93	1380	5 . 0		
246	5.76	82	0.87	1360	5 . 6		
396	3.59	51	1.95	3690	M 0 2 2 2 3 . 6 _ M _ _ _ _ 2 . 2 A - -	33	100L
282	5.03	72	1.61	3860	5 . 0		
256	5.55	79	1.52	3910	5 . 6		
225	6.3	90	1.41	3970	6 . 3		
178	8	114	1.19	4000	8 . 0		
156	9.09	130	1.07	4000	9 . 0		
127	11.15	159	0.91	4000	1 1 .		
115	12.37	176	0.84	4000	1 2 .		
396	3.59	51	2.31	3690	M 0 3 2 2 3 . 6 _ M _ _ _ _ 2 . 2 A - -	33	100L
282	5.03	71	1.88	3860	5 . 0		
256	5.55	79	1.77	3910	5 . 6		
225	6.3	89	1.63	3970	6 . 3		
178	8	114	1.4	4000	8 . 0		
156	9.09	130	1.29	4000	9 . 0		
127	11.15	159	1.12	4000	1 1 .		
115	12.37	177	1.05	4000	1 2 .		
101	14.05	201	0.96	4000	1 4 .		
89	15.97	227	0.9	3850	1 6 .		
81	17.58	251	0.83	3640	1 8 .		
398	3.58	51	3.96	4526	M 0 4 2 2 3 . 6 _ M _ _ _ _ 2 . 2 A - -	49	100L
283	5.04	71	3.29	4718	5 . 0		
252	5.65	80	3.09	4800	5 . 6		
225	6.34	90	2.89	4881	6 . 3		
177	8.05	115	2.51	5024	8 . 0		
156	9.13	130	2.29	5095	9 . 0		
131	10.89	156	1.99	5179	1 1 .		
114	12.54	178	1.58	5420	1 2 .		
98	14.58	208	1.42	5594	1 4 .		
87	16.31	232	1.31	5539	1 6 .		
82	17.39	248	1.25	5598	1 8 .		
69	20.61	293	1.09	5764	2 0 .		
65	22	314	1.03	5822	2 2 .		
52	27.3	388	0.86	5983	2 8 .		
177	8.05	115	3.9	4843	M 0 5 2 2 8 . 0 _ M _ _ _ _ 2 . 2 A - -	49	100L
156	9.13	130	3.44	4915	9 . 0		
131	10.89	156	2.88	4998	1 1 .		
114	12.54	179	2.37	5016	1 2 .		
98	14.58	208	2.15	5016	1 4 .		
87	16.31	233	1.93	5431	1 6 .		
82	17.39	248	1.81	5497	1 8 .		
69	20.61	294	1.53	5567	2 0 .		
65	22	314	1.43	5113	2 2 .		
52	27.3	390	1.15	4504	2 8 .		
44	32.19	459	0.98	4522	3 2 .		
40	35.25	501	0.9	3645	3 6 .		
106	13.48	193	3.18	7200	M 0 6 2 2 1 2 . _ M _ _ _ _ 2 . 2 A - -	54	100L
92	15.52	222	2.37	7200	1 4 .		
79	18.05	258	2.31	7200	1 6 .		
71	20.2	288	2.17	7200	1 8 .		
66	21.53	307	2.03	7200	2 0 .		
56	25.51	364	1.72	7200	2 2 .		
52	27.24	389	1.61	7200	2 8 .		
42	33.8	483	1.3	7200	3 2 .		
36	39.86	567	1.1	7200	3 6 .		
33	43.64	622	1.01	7200	4 5 .		
99	14.34	205	3.69	8331	M 0 7 2 2 1 4 . _ M _ _ _ _ 2 . 2 A - -	62	100L
88	16.26	232	3.39	8633	1 6 .		
79	17.94	256	3.1	9020	1 8 .		
69	20.54	293	2.74	8833	2 0 .		
61	23.23	330	2.46	8092	2 2 .		
53	26.93	383	2.15	7680	2 8 .		
44	32.12	457	1.84	8001	3 2 .		
41	35.17	500	1.69	7430	3 6 .		
34	42.21	598	1.44	7261	4 5 .		
29	48.56	687	1.02	7502	5 0 .		
24	58.95	834	0.9	5530	M 0 7 3 2 5 6 . _ M _ _ _ _ 2 . 2 A - -	60	100L
23	62.83	887	0.87	4630	6 3 .		
43	32.97	469	3.47	20190	M 0 8 2 2 3 2 . _ M _ _ _ _ 2 . 2 A - -	94	100L
39	36.21	515	3.2	20215	3 6 .		
32	44.38	631	2.61	18821	4 5 .		
29	48.46	689	2.39	18617	5 0 .		
26	55.8	790	1.95	19279	5 6 .		
24	60.33	846	1.89	18900	M 0 8 3 2 5 6 . _ M _ _ _ _ 2 . 2 A - -	95	100L
22	66.02	930	1.77	18103	6 3 .		
19	74.69	1049	1.57	16927	7 1 .		
17	84.31	1183	1.39	17742	8 0 .		
14	102.2	1437	1.15	14328	1 0 0		
12	119.19	1671	0.99	14531	1 1 2		
11	130.92	1837	0.9	12174	1 2 5		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

2.2 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
32	44.44	634	3.89	29615	M 0 9 2 1 4 5 . _ M _ _ _ _ 2 . 2 A - -	135	100L
29	49.07	699	3.46	29617	5 0 .		
26	55.18	783	2.56	29563	5 6 .		
23	61.13	870	2.84	29546	6 3 .		
21	68.74	976	2.53	29429	7 1 .		
24	59.85	847	3.06	29523	M 0 9 3 1 5 6 . _ M _ _ _ _ 2 . 2 A - -	144	100L
21	66.49	939	2.81	29423	6 3 .		
19	74.26	1049	2.72	29429	7 1 .		
17	82.51	1166	2.45	29376	8 0 .		
15	93.92	1325	1.99	29220	9 0 .		
14	103.68	1462	1.8	29144	1 0 0		
12	116.55	1645	1.74	29082	1 1 2		
11	128.66	1818	1.57	29006	1 2 5		
10	145.2	2040	1.21	28826	1 4 0		
8.9	160.29	2247	1.1	28762	1 6 0		
18	79.08	1112	3.96	49582	M 1 0 3 1 8 0 . _ M _ _ _ _ 2 . 2 A - -	193	100L
15	95.44	1346	2.8	49101	9 0 .		
13	109.97	1548	2.43	48771	1 0 0		
13	112.77	1587	2.78	48771	1 1 2		
11	129.94	1828	2.41	48360	1 2 5		
10	135.88	1904	2.18	48326	1 4 0		
9.1	156.57	2196	1.9	47855	1 6 0		
6.5	220.22	3040	1.45	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 2 . 2 A - -	230	100L
5.9	242.24	3343	1.32	41580	2 5 0		
5.1	278.36	3841	1.15	41580	2 8 0		
4.5	315.65	4349	1.01	41580	3 0 0		
4.1	348.16	4800	0.92	41580	3 6 0		
3.6	398.71	5495	0.8	41580	4 0 0		
13	113.69	1588	4	66923	M 1 3 3 1 1 1 2 _ M _ _ _ _ 2 . 2 A - -	263	100L
11	126.62	1768	3.59	66826	1 2 5		
10	139.07	1935	3.34	66726	1 4 0		
9.2	154.89	2155	3	66730	1 6 0		
8.2	173.37	2425	2.62	66636	1 8 0		
7.7	184.46	2584	2.46	66536	2 0 0		
6.7	212.09	2957	2.18	66442	2 2 5		
6.3	226.98	3126	2.03	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 2 . 2 A - -	305	100L
5.7	249.68	3438	1.85	64632	2 5 0		
5	286.9	3949	1.61	64632	2 8 0		
4.4	325.33	4472	1.42	64632	3 0 0		
4	358.84	4936	1.29	64632	3 6 0		
3.5	410.95	5649	1.12	64632	4 0 0		
3.1	463.22	6365	1	64632	4 5 0		
2.7	523.74	7191	0.88	64632	5 0 0		
6.8	208.15	2903	3.79	80900	M 1 4 3 1 2 0 0 _ M _ _ _ _ 2 . 2 A - -	392	100L
6.7	211.96	2951	3.42	80900	2 2 5		
5.8	246.73	3402	3.11	80613	M 1 4 4 1 2 2 5 _ M _ _ _ _ 2 . 2 A - -	421	100L
5.3	271.4	3741	2.83	80613	2 5 0		
4.6	311.86	4297	2.47	80613	2 8 0		
4	353.64	4865	2.18	80613	3 0 0		
3.7	390.06	5369	1.97	80613	3 6 0		
3.2	446.71	6145	1.72	80613	4 0 0		
2.9	492.49	6769	1.59	80613	4 5 0		
2.6	556.83	7647	1.41	80613	5 0 0		
2.2	645.58	8856	1.22	80613	6 5 0		
1.9	770.01	10548	1.02	80613	7 3 0		
1.8	801.52	10952	0.97	80613	8 6 0		
1.5	929.27	12686	0.84	80613	1 0 C		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

2.2 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
262	3.59	79	1.27	3100	M 0 2 2 2 3 . 6 _ M _ _ _ _ 2 . 2 C - -	46	112M
187	5.03	110	1.05	3100	5 . 0		
169	5.55	121	1.00	3100	5 . 6		
149	6.30	138	0.92	2650	6 . 3		
262	3.59	79	1.50	2300	M 0 3 2 2 3 . 6 _ M _ _ _ _ 2 . 2 C - -	46	112M
187	5.03	110	1.22	2300	5 . 0		
169	5.55	121	1.15	2300	5 . 6		
149	6.30	138	1.07	2300	6 . 3		
118	8.00	175	0.92	2150	8 . 0		
103	9.09	199	0.84	2000	9 . 0		
265	3.58	77	3.02	4780	M 0 4 2 2 3 . 6 _ M _ _ _ _ 2 . 2 C - -	56	112M
188	5.04	108	2.51	5000	5 . 0		
168	5.65	121	2.35	5070	5 . 6		
150	6.34	136	2.15	5130	6 . 3		
118	8.05	172	1.79	5250	8 . 0		
104	9.13	196	1.62	5350	9 . 0		
87	10.89	233	1.43	5540	1 1 .		
76	12.54	268	1.21	5680	1 2 .		
65	14.58	313	1.08	5820	1 4 .		
58	16.31	349	0.97	5920	1 6 .		
55	17.39	373	0.9	5970	1 8 .		
265	3.58	77	3.8	7200	M 0 5 2 2 3 . 6 _ M _ _ _ _ 2 . 2 C - -	56	112M
188	5.04	108	3.53	4820	5 . 0		
168	5.65	121	3.39	4890	5 . 6		
150	6.34	136	3.03	4950	6 . 3		
118	8.05	173	2.6	5060	8 . 0		
104	9.13	196	2.29	5150	9 . 0		
87	10.89	234	1.92	5340	1 1 .		
76	12.54	269	1.58	5480	1 2 .		
65	14.58	313	1.43	5610	1 4 .		
58	16.31	349	1.29	5700	1 6 .		
55	17.39	373	1.21	5750	1 8 .		
46	20.61	442	1.02	5060	2 0 .		
43	22	471	0.95	4450	2 2 .		
152	6.24	134	3.53	7200	M 0 6 2 2 5 . 6 _ M _ _ _ _ 2 . 2 C - -	61	112M
136	6.99	150	3.39	7200	6 . 3		
121	7.85	168	3.03	7200	8 . 0		
95	9.97	214	2.77	7200	9 . 0		
84	11.3	243	2.5	7200	1 1 .		
70	13.48	290	2.15	7200	1 2 .		
61	15.52	333	1.58	7200	1 4 .		
53	18.05	388	1.54	7200	1 6 .		
47	20.2	433	1.44	7200	1 8 .		
44	21.53	462	1.35	7200	2 0 .		
37	25.51	547	1.14	7200	2 2 .		
35	27.24	584	1.07	7200	2 8 .		
28	33.8	724	0.86	7200	3 2 .		
84	11.35	243	3.18	8620	M 0 7 2 2 1 1 . _ M _ _ _ _ 2 . 2 C - -	69	112M
76	12.48	267	2.96	8440	1 2 .		
66	14.34	307	2.63	8126	1 4 .		
58	16.26	348	2.35	7790	1 6 .		
53	17.94	384	2.15	7470	1 8 .		
46	20.54	439	1.9	6963	2 0 .		
41	23.23	496	1.7	6666	2 2 .		
35	26.93	575	1.49	6666	2 8 .		
30	32.12	685	1.26	5217	3 2 .		
27	35.17	749	1.16	5217	3 6 .		
23	42.21	897	0.97	3265	4 5 .		
52	18.26	390	3.48	20000	M 0 8 2 2 1 8 . _ M _ _ _ _ 2 . 2 C - -	101	112M
46	20.66	442	3.3	20000	2 0 .		
41	23.32	500	3.08	20000	2 2 .		
34	28.27	604	2.73	20000	2 8 .		
29	32.97	704	2.34	17987	3 2 .		
26	36.21	773	2.13	17718	3 6 .		
21	44.38	947	1.74	16267	4 5 .		
20	48.46	1033	1.6	15492	5 0 .		
17	55.8	1184	1.31	14699	5 6 .		
16	60.33	1273	1.3	14606	M 0 8 3 2 5 6 . _ M _ _ _ _ 2 . 2 C - -	102	112M
14	66.02	1394	1.18	12236	6 3 .		
13	74.69	1581	1.04	11076	7 1 .		
11	84.31	1780	0.93	9804	8 0 .		
24	40.25	862	2.87	29500	M 0 9 2 1 4 0 . _ M _ _ _ _ 2 . 2 C - -	142	112M
21	44.44	951	2.6	29500	4 5 .		
19	49.07	1049	2.65	29400	5 0 .		
17	55.18	1174	1.66	29390	5 6 .		
16	61.13	1304	1.89	29250	6 3 .		
14	68.74	1464	1.66	28975	7 1 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

2.2 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
16	59.85	1270	2.08	29200	M 0 9 3 1 5 6 . _ M _ _ _ _ 2 . 2 C - -	151	112M
14	66.49	1410	1.87	29100	6 3 .		
13	74.26	1577	1.81	29100	7 1 .		
12	82.51	1751	1.63	29000	8 0 .		
10	93.92	1989	1.33	28800	9 0 .		
9.2	103.68	2198	1.2	28700	1 0 0		
8.2	116.55	2474	1.16	28600	1 1 2		
7.4	128.66	2728	1.05	28500	1 2 5		
6.5	145.2	3067	0.81	28300	1 4 0		
18	51.49	1097	3.53	49500	M 1 0 2 1 5 6 . _ M _ _ _ _ 2 . 2 C - -	188	112M
16	57.75	1229	3.38	49400	6 3 .		
15	62.05	1317	3.16	49200	7 1 .		
16	60.23	1275	2.96	49200	M 1 0 3 1 5 6 . _ M _ _ _ _ 2 . 2 C - -	205	112M
14	66.93	1418	2.66	49000	6 3 .		
13	71.17	1506	2.93	48900	7 1 .		
12	79.08	1673	2.64	48600	8 0 .		
10	95.44	2019	1.87	47635	9 0 .		
8.6	109.97	2328	1.62	46378	1 0 0		
8.4	112.77	2385	1.85	46425	1 1 2		
7.3	129.94	2746	1.61	46625	1 2 5		
7	135.88	2870	1.45	46450	1 4 0		
6.1	156.57	3299	1.26	46044	1 6 0		
4.3	220.22	4569	0.97	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 2 . 2 C - -	237	112M
3.9	242.24	5024	0.88	41580	2 5 0		
8.4	113.69	2384	2.66	66600	M 1 3 3 1 1 1 2 _ M _ _ _ _ 2 . 2 C - -	270	112M
7.5	126.62	2653	2.39	66531	1 2 5		
6.8	139.07	2907	2.22	66420	1 4 0		
6.1	154.89	3234	2	66373	1 6 0		
5.5	173.37	3638	1.75	66232	1 8 0		
5.2	184.46	3878	1.64	66115	2 0 0		
4.5	212.09	4446	1.45	65962	2 2 5		
4.2	226.98	4696	1.35	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 2 . 2 C - -	312	112M
3.8	249.68	5164	1.23	64632	2 5 0		
3.3	286.9	5930	1.07	64632	2 8 0		
2.9	325.33	6714	0.95	64632	3 0 0		
2.6	358.84	7410	0.86	64632	3 6 0		
6.7	142.66	2977	3.39	80900	M 1 4 3 1 1 4 0 _ M _ _ _ _ 2 . 2 C - -	399	112M
6.1	154.57	3230	3.13	80900	1 6 0		
5.1	185.56	3894	2.82	80900	1 8 0		
4.6	208.15	4359	2.52	80900	2 0 0		
4.5	211.96	4428	2.28	80865	2 2 5		
3.9	246.73	5107	2.07	80613	M 1 4 4 1 2 2 5 _ M _ _ _ _ 2 . 2 C - -	428	112M
3.5	271.4	5616	1.89	80613	2 5 0		
3	311.86	6449	1.64	80613	2 8 0		
2.7	353.64	7301	1.45	80613	3 0 0		
2.4	390.06	8057	1.32	80613	3 6 0		
2.1	446.71	9219	1.15	80613	4 0 0		
1.9	492.49	10157	1.06	80613	4 5 0		
1.7	556.83	11473	0.94	80613	5 0 0		
1.5	645.58	13285	0.81	80613	6 5 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

3.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
398	3.59	68	1.46	3100	M 0 2 2 2 3 . 6 _ M _ _ _ _ 3 . 0 A - -	39	100L
284	5.03	96	1.21	3100	5 . 0		
258	5.55	106	1.15	3100	5 . 6		
227	6.30	120	1.06	3100	6 . 3		
179	8.00	152	0.89	2600	8 . 0		
157	9.09	173	0.81	2300	9 . 0		
398	3.59	68	1.73	2300	M 0 3 2 2 3 . 6 _ M _ _ _ _ 3 . 0 A - -	39	100L
284	5.03	96	1.41	2300	5 . 0		
258	5.55	106	1.33	2300	5 . 6		
227	6.30	120	1.23	2300	6 . 3		
179	8.00	152	1.06	2300	8 . 0		
157	9.09	173	0.97	2200	9 . 0		
128	11.15	212	0.84	2000	1 1 .		
398	3.58	69	2.91	4476	M 0 4 2 2 3 . 6 _ M _ _ _ _ 3 . 0 A - -	49	100L
283	5.04	98	2.41	4648	5 . 0		
252	5.65	110	2.26	4720	5 . 6		
225	6.34	123	2.12	4791	6 . 3		
177	8.05	157	1.84	4911	8 . 0		
156	9.13	177	1.68	4968	9 . 0		
131	10.89	212	1.46	5026	1 1 .		
114	12.54	244	1.16	5202	1 2 .		
98	14.58	284	1.04	5343	1 4 .		
87	16.31	317	0.96	5110	1 6 .		
82	17.39	339	0.92	5140	1 8 .		
283	5.04	98	3.87	4395	M 0 5 2 2 5 . 0 _ M _ _ _ _ 3 . 0 A - -	49	100L
252	5.65	110	3.73	4450	5 . 6		
225	6.34	123	3.34	4504	6 . 3		
177	8.05	157	2.86	4733	8 . 0		
156	9.13	178	2.52	4790	9 . 0		
131	10.89	212	2.11	4850	1 1 .		
114	12.54	244	1.74	4855	1 2 .		
98	14.58	284	1.58	4762	1 4 .		
87	16.31	317	1.42	5204	1 6 .		
82	17.39	339	1.33	5254	1 8 .		
69	20.61	401	1.12	5221	2 0 .		
65	22	429	1.05	4500	2 2 .		
52	27.3	532	0.85	3280	2 8 .		
228	6.24	122	3.87	7200	M 0 6 2 2 5 . 6 _ M _ _ _ _ 3 . 0 A - -	54	100L
204	6.99	136	3.73	7200	6 . 3		
182	7.85	153	3.34	7200	8 . 0		
143	9.97	194	3.05	7200	9 . 0		
126	11.3	221	2.73	7200	1 1 .		
106	13.48	263	2.33	7200	1 2 .		
92	15.52	303	1.74	7200	1 4 .		
79	18.05	352	1.69	7200	1 6 .		
71	20.2	394	1.59	7200	1 8 .		
66	21.53	419	1.49	7200	2 0 .		
56	25.51	497	1.26	7200	2 2 .		
52	27.24	530	1.18	7200	2 8 .		
42	33.8	658	0.95	7200	3 2 .		
36	39.86	773	0.81	7200	3 6 .		
126	11.35	221	3.23	7698	M 0 7 2 2 1 1 . _ M _ _ _ _ 3 . 0 A - -	62	100L
114	12.48	243	3.03	7607	1 2 .		
99	14.34	279	2.71	7670	1 4 .		
88	16.26	316	2.48	7956	1 6 .		
79	17.94	349	2.27	8480	1 8 .		
69	20.54	399	2.01	8190	2 0 .		
61	23.23	451	1.8	7040	2 2 .		
53	26.93	523	1.58	6400	2 8 .		
44	32.12	623	1.35	6898	3 2 .		
41	35.17	682	1.24	6012	3 6 .		
34	42.21	815	1.06	5750	4 5 .		
78	18.26	354	3.83	18200	M 0 8 2 2 1 8 . _ M _ _ _ _ 3 . 0 A - -	94	100L
69	20.66	401	3.64	18800	2 0 .		
61	23.32	456	3.37	19500	2 2 .		
50	28.27	548	2.9	20000	2 8 .		
43	32.97	640	2.55	18667	3 2 .		
39	36.21	702	2.35	18492	3 6 .		
32	44.38	860	1.92	17475	4 5 .		
29	48.46	939	1.76	17036	5 0 .		
26	55.8	1078	1.43	18755	5 6 .		
24	60.33	1154	1.39	18100	M 0 8 3 2 5 6 . _ M _ _ _ _ 3 . 0 A - -	95	100L
22	66.02	1268	1.3	16724	6 3 .		
19	74.69	1430	1.15	14693	7 1 .		
17	84.31	1614	1.02	16100	8 0 .		
14	102.2	1959	0.84	11200	1 0 0		
40	35.67	693	3.37	29600	M 0 9 2 1 3 6 . _ M _ _ _ _ 3 . 0 A - -	135	100L
35	40.25	783	3.15	29600	4 0 .		
32	44.44	865	2.85	29492	4 5 .		
29	49.07	953	2.54	29478	5 0 .		
26	55.18	1068	1.88	29407	5 6 .		
23	61.13	1187	2.08	29370	6 3 .		
21	68.74	1332	1.85	29234	7 1 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

3.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
24	59.85	1155	2.24	29335	M 0 9 3 1 5 6 . _ M _ _ _ _ 3 . 0 A - -	144	100L
21	66.49	1281	2.06	29235	6 3 .		
19	74.26	1431	2	29194	7 1 .		
17	82.51	1590	1.8	29120	8 0 .		
15	93.92	1806	1.46	28944	9 0 .		
14	103.68	1994	1.32	28813	1 0 0		
12	116.55	2244	1.27	28779	1 1 2		
11	128.66	2480	1.15	28648	1 2 5		
10	145.2	2782	0.89	28400	1 4 0		
8.9	160.29	3065	0.81	28300	1 6 0		
28	51.49	1001	3.87	46600	M 1 0 2 1 5 6 . _ M _ _ _ _ 3 . 0 A - -	181	100L
25	57.75	1113	3.73	48400	6 3 .		
23	62.05	1198	3.47	49452	7 1 .		
24	60.23	1157	3.26	29500	M 1 0 3 1 5 6 . _ M _ _ _ _ 3 . 0 A - -	193	100L
21	66.93	1285	2.93	29500	6 3 .		
20	71.17	1366	3.23	29500	7 1 .		
18	79.08	1517	2.91	48921	8 0 .		
15	95.44	1835	2.05	48286	9 0 .		
13	109.97	2111	1.79	47825	1 0 0		
13	112.77	2164	2.04	47825	1 1 2		
11	129.94	2492	1.77	47287	1 2 5		
10	135.88	2596	1.6	47214	1 4 0		
9.1	156.57	2995	1.39	46586	1 6 0		
6.5	220.22	4145	1.06	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 3 . 0 A - -	230	100L
5.9	242.24	4559	0.97	41580	2 5 0		
5.1	278.36	5237	0.84	41580	2 8 0		
16	90.75	1736	3.57	66900	M 1 3 3 1 9 0 . _ M _ _ _ _ 3 . 0 A - -	263	100L
14	101.07	1933	3.21	66700	1 0 0		
13	113.69	2165	2.93	66738	1 1 2		
11	126.62	2410	2.63	66611	1 2 5		
10	139.07	2639	2.45	66511	1 4 0		
9.2	154.89	2938	2.2	66484	1 6 0		
8.2	173.37	3307	1.92	66345	1 8 0		
7.7	184.46	3524	1.8	66245	2 0 0		
6.7	212.09	4032	1.6	66103	2 2 5		
6.3	226.98	4263	1.49	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 3 . 0 A - -	305	100L
5.7	249.68	4689	1.35	64632	2 5 0		
5	286.9	5386	1.18	64632	2 8 0		
4.4	325.33	6098	1.04	64632	3 0 0		
4	358.84	6731	0.94	64632	3 6 0		
3.5	410.95	7704	0.82	64632	4 0 0		
10	142.66	2704	3.73	80900	M 1 4 3 1 1 4 0 _ M _ _ _ _ 3 . 0 A - -	392	100L
9.2	154.57	2936	3.44	80900	1 6 0		
7.7	185.56	3538	3.11	80900	1 8 0		
6.8	208.15	3959	2.78	80900	2 0 0		
6.7	211.96	4025	2.51	80900	2 2 5		
5.8	246.73	4639	2.28	80613	M 1 4 4 1 2 2 5 _ M _ _ _ _ 3 . 0 A - -	421	100L
5.3	271.4	5102	2.08	80613	2 5 0		
4.6	311.86	5859	1.81	80613	2 8 0		
4	353.64	6634	1.6	80613	3 0 0		
3.7	390.06	7322	1.45	80613	3 6 0		
3.2	446.71	8379	1.26	80613	4 0 0		
2.9	492.49	9231	1.17	80613	4 5 0		
2.6	556.83	10428	1.03	80613	5 0 0		
2.2	645.58	12077	0.89	80613	6 5 0		

3.0 kW

6 POLE

260	3.68	107	2.87	8020	M 0 7 2 2 3 . 6 _ M _ _ _ _ 3 . 0 C - -	88	132S
187	5.09	148	2.87	8470	5 . 0		
167	5.72	166	2.87	8620	5 . 6		
152	6.29	183	2.87	8750	6 . 3		
116	8.22	239	2.87	9090	8 . 0		
102	9.34	271	2.73	9240	9 . 0		
84	11.35	330	2.34	7950	1 1 .		
77	12.48	363	2.18	7683	1 2 .		
67	14.34	417	1.94	7218	1 4 .		
59	16.26	472	1.73	6718	1 6 .		
53	17.94	522	1.58	6243	1 8 .		
46	20.54	596	1.4	5491	2 0 .		
41	23.23	673	1.26	5050	2 2 .		
35	26.93	781	1.1	5050	2 8 .		
30	32.12	930	0.93	2898	3 2 .		
27	35.17	1017	0.85	2898	3 6 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

3.0 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
63	15.04	436	3.55	19300	M 0 8 2 2 1 4 . _ M _ _ _ _ 3 . 0 C - -	121	132S
57	16.69	483	2.93	19900	1 6 .		
52	18.26	529	2.57	18460	1 8 .		
46	20.66	599	2.43	18233	2 0 .		
41	23.32	678	2.27	18181	2 2 .		
34	28.27	819	2.01	18181	2 8 .		
29	32.97	955	1.73	15687	3 2 .		
26	36.21	1049	1.57	15111	3 6 .		
22	44.38	1285	1.28	13552	4 5 .		
20	48.46	1401	1.18	12214	5 0 .		
17	55.8	1606	0.96	11775	5 6 .		
16	60.33	1727	0.96	10683	M 0 8 3 2 5 6 . _ M _ _ _ _ 3 . 0 C - -	126	132S
14	66.02	1891	0.87	7953	6 3 .		
37	26.04	758	3.48	29500	M 0 9 2 1 2 5 . _ M _ _ _ _ 3 . 0 C - -	162	132S
33	28.74	837	3.15	29500	2 8 .		
30	32.31	940	2.83	29500	3 2 .		
27	35.67	1038	2.59	29400	3 6 .		
24	40.25	1169	2.11	28790	4 0 .		
21	44.44	1290	1.91	29303	4 5 .		
19	49.07	1423	1.95	29067	5 0 .		
17	55.18	1593	1.22	29150	5 6 .		
16	61.13	1769	1.4	28995	6 3 .		
14	68.74	1985	1.22	28520	7 1 .		
22	42.7	1242	3.35	49400	M 1 0 2 1 4 5 . _ M _ _ _ _ 3 . 0 C - -	208	132S
20	47.93	1386	3.04	49100	5 0 .		
19	51.49	1488	2.6	48845	5 6 .		
17	57.75	1668	2.49	48681	6 3 .		
15	62.05	1787	2.33	48436	7 1 .		
15	64.17	1851	3.35	66800	M 1 3 3 1 6 3 . _ M _ _ _ _ 3 . 0 C - -	290	132S
13	71.32	2039	3.11	66700	7 1 .		
12	80.39	2298	2.76	66600	8 0 .		
11	90.75	2593	2.39	66600	9 0 .		
9.4	101.07	2885	2.15	66500	1 0 0		
8.4	113.69	3234	1.96	66328	1 1 2		
7.5	126.62	3599	1.76	66225	1 2 5		
6.9	139.07	3943	1.64	66100	1 4 0		
6.2	154.89	4387	1.47	66000	1 6 0		
5.5	173.37	4935	1.29	65812	1 8 0		
5.2	184.46	5260	1.21	65675	2 0 0		
4.5	212.09	6031	1.07	65462	2 2 5		
7.6	124.89	3551	3.1	80900	M 1 4 3 1 1 1 2 _ M _ _ _ _ 3 . 0 C - -	419	132S
7.1	135.31	3852	2.86	80900	1 2 5		
6.7	142.66	4039	2.5	80900	1 4 0		
6.2	154.57	4382	2.3	80900	1 6 0		
5.1	185.56	5282	2.08	80900	1 8 0		
4.6	208.15	5913	1.86	80854	2 0 0		
4.5	211.96	6007	1.68	80825	2 2 5		

4.0 kW

4 POLE

398	3.59	91	1.10	3100	M 0 2 2 2 3 . 6 _ M _ _ _ _ 4 . 0 A - -	46	112M
284	5.03	128	0.91	2650	5 . 0		
258	5.55	141	0.86	2400	5 . 6		
398	3.59	91	1.30	2300	M 0 3 2 2 3 . 6 _ M _ _ _ _ 4 . 0 A - -	46	112M
284	5.03	128	1.06	2300	5 . 0		
258	5.55	141	0.99	2300	5 . 6		
227	6.30	160	0.92	2100	6 . 3		
400	3.58	92	2.19	4413	M 0 4 2 2 3 . 6 _ M _ _ _ _ 4 . 0 A - -	56	112M
285	5.04	129	1.82	4561	5 . 0		
254	5.65	145	1.71	4620	5 . 6		
226	6.34	163	1.6	4678	6 . 3		
178	8.05	208	1.39	4770	8 . 0		
157	9.13	235	1.27	4809	9 . 0		
132	10.89	281	1.1	4835	1 1 .		
114	12.54	323	0.88	4930	1 2 .		
400	3.58	92	3.17	4160	M 0 5 2 2 3 . 6 _ M _ _ _ _ 4 . 0 A - -	56	112M
285	5.04	130	2.92	4345	5 . 0		
254	5.65	146	2.82	4394	5 . 6		
226	6.34	163	2.52	4438	6 . 3		
178	8.05	208	2.16	4596	8 . 0		
157	9.13	236	1.9	4634	9 . 0		
132	10.89	281	1.6	4666	1 1 .		
114	12.54	324	1.31	4653	1 2 .		
98	14.58	377	1.19	4445	1 4 .		
88	16.31	421	1.07	4920	1 6 .		
83	17.39	449	1	4950	1 8 .		
70	20.61	531	0.85	4790	2 0 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

4.0 kW

4 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
323	4.44	114	3.17	7200	M 0 6 2 2 5 . 0 _ M _ _ _ _ 4 . 0 A - -	61	112M
230	6.24	162	2.92	7200	5 . 6		
205	6.99	180	2.82	7200	6 . 3		
183	7.85	202	2.52	7200	8 . 0		
144	9.97	258	2.3	7200	9 . 0		
127	11.3	292	2.06	7200	1 1 .		
106	13.48	348	1.76	7200	1 2 .		
92	15.52	401	1.31	7200	1 4 .		
79	18.05	466	1.28	7200	1 6 .		
71	20.2	521	1.2	7200	1 8 .		
67	21.53	556	1.13	7200	2 0 .		
56	25.51	658	0.95	7200	2 2 .		
53	27.24	702	0.89	7200	2 8 .		
390	3.68	94	3.24	7490	M 0 7 2 2 3 . 6 _ M _ _ _ _ 4 . 0 A - -	69	112M
282	5.09	131	3.24	7780	5 . 0		
251	5.72	147	3.24	7930	5 . 6		
228	6.29	161	3.24	8050	6 . 3		
175	8.22	213	2.97	8370	8 . 0		
154	9.34	241	2.75	8510	9 . 0		
126	11.35	293	2.44	7128	1 1 .		
115	12.48	321	2.29	6943	1 2 .		
100	14.34	370	2.04	6844	1 4 .		
88	16.26	419	1.88	7110	1 6 .		
80	17.94	463	1.71	7804	1 8 .		
70	20.54	529	1.52	7385	2 0 .		
62	23.23	597	1.36	5724	2 2 .		
53	26.93	693	1.19	4800	2 8 .		
45	32.12	826	1.02	5520	3 2 .		
41	35.17	903	0.94	4240	3 6 .		
86	16.69	428	3.32	17400	M 0 8 2 2 1 6 . _ M _ _ _ _ 4 . 0 A - -	101	112M
79	18.26	469	2.89	16986	1 8 .		
69	20.66	531	2.75	17340	2 0 .		
62	23.32	604	2.55	17752	2 2 .		
51	28.27	726	2.19	17785	2 8 .		
44	32.97	847	1.92	16763	3 2 .		
40	36.21	930	1.77	16338	3 6 .		
32	44.38	1139	1.45	15792	4 5 .		
30	48.46	1244	1.33	15060	5 0 .		
26	55.8	1427	1.08	18100	5 6 .		
24	60.33	1528	1.05	17100	M 0 8 3 2 5 6 . _ M _ _ _ _ 4 . 0 A - -	102	112M
22	66.02	1679	0.98	15000	6 3 .		
19	74.69	1894	0.87	11900	7 1 .		
55	26.04	671	3.93	27400	M 0 9 2 1 2 5 . _ M _ _ _ _ 4 . 0 A - -	142	112M
50	28.74	740	3.56	28200	2 8 .		
44	32.31	837	2.77	29300	3 2 .		
40	35.67	918	2.55	28783	3 6 .		
36	40.25	1037	2.38	29111	4 0 .		
32	44.44	1146	2.15	29338	4 5 .		
29	49.07	1262	1.92	29305	5 0 .		
26	55.18	1415	1.42	29212	5 6 .		
23	61.13	1572	1.57	29151	6 3 .		
21	68.74	1763	1.4	28990	7 1 .		
24	59.85	1530	1.69	29100	M 0 9 3 1 5 6 . _ M _ _ _ _ 4 . 0 A - -	151	112M
22	66.49	1696	1.56	29000	6 3 .		
19	74.26	1895	1.51	28900	7 1 .		
17	82.51	2105	1.36	28800	8 0 .		
15	93.92	2392	1.1	28600	9 0 .		
14	103.68	2641	1	28400	1 0 0		
12	116.55	2971	0.96	28400	1 1 2		
11	128.66	3283	0.87	28200	1 2 5		
34	42.7	1098	3.79	43600	M 1 0 2 1 4 5 . _ M _ _ _ _ 4 . 0 A - -	188	112M
30	47.93	1227	3.41	45100	5 0 .		
28	51.49	1325	2.92	46066	5 6 .		
25	57.75	1474	2.82	47800	6 3 .		
23	62.05	1586	2.62	48813	7 1 .		
24	60.23	1532	2.46	29411	M 1 0 3 1 5 6 . _ M _ _ _ _ 4 . 0 A - -	205	112M
21	66.93	1702	2.21	29411	6 3 .		
20	71.17	1809	2.44	29411	7 1 .		
18	79.08	2009	2.19	48094	8 0 .		
15	95.44	2430	1.55	47267	9 0 .		
13	109.97	2795	1.35	46641	1 0 0		
13	112.77	2865	1.54	46641	1 1 2		
11	129.94	3300	1.34	45946	1 2 5		
11	135.88	3438	1.21	45824	1 4 0		
9.2	156.57	3965	1.05	45000	1 6 0		
6.5	220.22	5489	0.8	41580	M 1 0 4 1 2 2 5 _ M _ _ _ _ 4 . 0 A - -	237	112M

SERIES M

SELECTION TABLES

GEARED MOTORS

4.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
22	64.17	1637	3.79	66900	M 1 3 3 1 6 3 . _ M _ _ _ _ 4 . 0 A - -	270	112M
20	71.32	1807	3.51	66800	7 1 .		
18	80.39	2036	3.12	66841	8 0 .		
16	90.75	2299	2.7	66800	9 0 .		
14	101.07	2559	2.42	66611	1 0 0		
13	113.69	2867	2.21	66507	1 1 2		
11	126.62	3192	1.99	66342	1 2 5		
10	139.07	3495	1.85	66242	1 4 0		
9.3	154.89	3891	1.66	66176	1 6 0		
8.3	173.37	4379	1.45	65981	1 8 0		
7.8	184.46	4666	1.36	65881	2 0 0		
6.8	212.09	5339	1.21	65678	2 2 5		
6.3	226.98	5645	1.12	64632	M 1 3 4 1 2 2 5 _ M _ _ _ _ 4 . 0 A - -	312	112M
5.7	249.68	6208	1.02	64632	2 5 0		
5	286.9	7131	0.89	64632	2 8 0		
11	124.89	3153	3.49	80900	M 1 4 3 1 1 1 2 _ M _ _ _ _ 4 . 0 A - -	399	112M
11	135.31	3419	3.22	80900	1 2 5		
10	142.66	3580	2.82	80900	1 4 0		
9.3	154.57	3887	2.6	80900	1 6 0		
7.7	185.56	4684	2.35	80900	1 8 0		
6.9	208.15	5242	2.1	80900	2 0 0		
6.8	211.96	5329	1.9	80900	2 2 5		
5.8	246.73	6143	1.72	80613	M 1 4 4 1 2 2 5 _ M _ _ _ _ 4 . 0 A - -	428	112M
5.3	271.4	6755	1.57	80613	2 5 0		
4.6	311.86	7758	1.37	80613	2 8 0		
4.1	353.64	8784	1.21	80613	3 0 0		
3.7	390.06	9694	1.09	80613	3 6 0		
3.2	446.71	11095	0.95	80613	4 0 0		
2.9	492.49	12222	0.88	80613	4 5 0		

4.0 kW

6 POLE

261	3.68	141	2.16	7888	M 0 7 2 2 3 . 6 _ M _ _ _ _ 4 . 0 C - -	92	132M
188	5.09	196	2.16	8290	5 . 0		
168	5.72	221	2.16	8420	5 . 6		
153	6.29	243	2.16	8522	6 . 3		
117	8.22	317	2.16	8334	8 . 0		
103	9.34	360	2.06	8232	9 . 0		
85	11.35	437	1.76	7114	1 .		
77	12.48	482	1.64	6738	1 2 .		
67	14.34	553	1.46	6083	1 4 .		
59	16.26	626	1.3	5379	1 6 .		
54	17.94	692	1.19	4710	1 8 .		
47	20.54	791	1.06	3650	2 .		
41	23.23	893	0.95	3030	2 2 .		
36	26.93	1036	0.83	3030	2 8 .		
115	8.33	322	3.97	16700	M 0 8 2 2 8 . 0 _ M _ _ _ _ 4 . 0 C - -	125	132M
103	9.35	359	3.7	17000	9 . 0		
84	11.47	443	3.22	17500	1 .		
74	12.92	498	2.95	18100	1 2 .		
64	15.04	579	2.67	17670	1 4 .		
58	16.69	641	2.21	17998	1 6 .		
53	18.26	702	1.93	16537	1 8 .		
46	20.66	795	1.84	16025	2 0 .		
41	23.32	900	1.71	15909	2 2 .		
34	28.27	1087	1.52	15909	2 8 .		
29	32.97	1266	1.3	12812	3 2 .		
27	36.21	1392	1.18	11852	3 6 .		
22	44.38	1705	0.97	10159	4 5 .		
20	48.46	1859	0.89	8116	5 0 .		
52	18.43	713	3.7	27900	M 0 9 2 1 1 8 . _ M _ _ _ _ 4 . 0 C - -	166	132M
47	20.59	800	3.58	29000	2 0 .		
42	22.87	886	3.22	29500	2 2 .		
37	26.04	1005	2.62	28425	2 5 .		
33	28.74	1110	2.38	28275	2 8 .		
30	32.31	1247	2.13	28250	3 2 .		
27	35.67	1377	1.95	27958	3 6 .		
24	40.25	1551	1.59	27904	4 0 .		
22	44.44	1712	1.44	29058	4 5 .		
20	49.07	1887	1.47	28652	5 0 .		
17	55.18	2113	0.92	28850	5 6 .		
16	61.13	2346	1.05	28677	6 3 .		
14	68.74	2634	0.92	27952	7 1 .		
32	29.99	1160	3.25	44300	M 1 0 2 1 2 8 . _ M _ _ _ _ 4 . 0 C - -	212	132M
31	30.76	1183	3.72	44700	3 2 .		
27	35.44	1367	3.22	46600	3 6 .		
26	37.06	1422	2.92	47300	4 0 .		
22	42.7	1647	2.53	48566	4 5 .		
20	47.93	1838	2.3	47958	5 0 .		
19	51.49	1974	1.96	48027	5 6 .		
17	57.75	2212	1.88	47784	6 3 .		
15	62.05	2370	1.75	47481	7 1 .		
16	60.23	2295	1.64	49200	M 1 0 3 1 5 6 . _ M _ _ _ _ 4 . 0 C - -	239	132M
14	66.93	2551	1.48	49000	6 3 .		
13	71.17	2709	1.63	48900	7 1 .		
12	79.08	3010	1.47	46358	8 0 .		
10	95.44	3633	1.04	44125	9 0 .		
8.7	109.97	4188	0.9	40408	1 0 0		
8.5	112.77	4291	1.03	40575	1 1 2		
7.4	129.94	4941	0.89	42575	1 2 5		
7.1	135.88	5164	0.81	42113	1 4 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

4.0 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
17 15 13 12 11 9.5 8.4 7.6 6.9 6.2 5.5 5.2 4.5	56.93 64.17 71.32 80.39 90.75 101.07 113.69 126.62 139.07 154.89 173.37 184.46 212.09	2175 2455 2705 3049 3439 3827 4290 4774 5230 5819 6546 6978 8000	2.85 2.53 2.35 2.08 1.8 1.62 1.48 1.33 1.24 1.11 0.97 0.91 0.81	66700 66741 66616 66516 66437 66325 65988 65841 65700 65533 65287 65125 64837	M 1 3 3 1 5 6 . _ M _ _ _ _ 4 . 0 C - - 6 3 . 7 1 . 8 0 . 9 0 . 1 0 0 1 1 2 1 2 5 1 4 0 1 6 0 1 8 0 2 0 0 2 2 5	294	132M
10 9.4 7.7 7.1 6.7 6.2 5.2 4.6 4.5	94.35 102.23 124.89 135.31 142.66 154.57 185.56 208.15 211.96	3580 3860 4710 5110 5358 5812 7006 7843 7968	3.1 2.88 2.34 2.15 1.88 1.74 1.57 1.4 1.27	80900 80900 80900 80900 80900 80900 80900 80798 80775	M 1 4 3 1 9 0 . _ M _ _ _ _ 4 . 0 C - - 1 0 0 1 1 2 1 2 5 1 4 0 1 6 0 1 8 0 2 0 0 2 2 5	423	132M

5.5 kW

4 POLE

399 284 253 226 178 157	3.58 5.04 5.65 6.34 8.05 9.13	127 179 200 226 287 325	1.59 1.32 1.24 1.16 1.01 0.92	4320 4430 4470 4510 4560 4570	M 0 4 2 2 3 . 6 _ M _ _ _ _ 5 . 5 A - - 5 . 0 5 . 6 6 . 3 8 . 0 9 . 0	70	132S
399 284 253 226 178 157 131 114 98	3.58 5.04 5.65 6.34 8.05 9.13 10.89 12.54 14.58	127 180 201 225 287 326 389 447 520	2.3 2.12 2.04 1.83 1.56 1.38 1.16 0.95 0.86	4160 4270 4310 4340 4390 4400 4390 4350 3970	M 0 5 2 2 3 . 6 _ M _ _ _ _ 5 . 5 A - - 5 . 0 5 . 6 6 . 3 8 . 0 9 . 0 1 1 . 1 2 . 1 4 .	70	132S
322 229 204 182 143 127 106 92 79 71 66	4.44 6.24 6.99 7.85 9.97 11.3 13.48 15.52 18.05 20.2 21.53	157 223 249 279 356 403 480 554 644 719 767	2.3 2.12 2.04 1.83 1.67 1.5 1.27 0.95 0.93 0.87 0.82	7200 7200 7200 7200 7200 7200 7200 7200 7200 7200 7200	M 0 6 2 2 5 . 0 _ M _ _ _ _ 5 . 5 A - - 5 . 6 6 . 3 8 . 0 9 . 0 1 1 . 1 2 . 1 4 . 1 6 . 1 8 . 2 0 .	75	132S
392 283 252 229 175 154 127 115 100 89 80 70 62 53	3.68 5.09 5.72 6.29 8.22 9.34 11.35 12.48 14.34 16.26 17.94 20.54 23.23 26.93	129 179 201 221 292 330 401 441 507 574 634 725 818 949	2.37 2.37 2.37 2.37 2.17 2 1.78 1.67 1.49 1.37 1.25 1.11 0.99 0.87	7393 7647 7709 7732 7722 7667 6273 5948 5604 5840 6791 6178 3751 2400	M 0 7 2 2 3 . 6 _ M _ _ _ _ 5 . 5 A - - 5 . 0 5 . 6 6 . 3 8 . 0 9 . 0 1 1 . 1 2 . 1 4 . 1 6 . 1 8 . 2 0 . 2 2 . 2 8 .	88	132S
173 154 126 111 96 86 79 70 62 51 44 40 32 30	8.33 9.35 11.47 12.92 15.04 16.69 18.26 20.66 23.32 28.27 32.97 36.21 44.38 48.46	295 331 405 455 534 586 643 728 828 994 1161 1274 1562 1704	3.95 3.68 3.23 2.94 2.65 2.42 2.11 2 1.86 1.6 1.4 1.29 1.06 0.97	15336 15648 16175 16393 16821 15526 15166 15150 15130 14463 13907 13107 13268 12097	M 0 8 2 2 8 . 0 _ M _ _ _ _ 5 . 5 A - - 9 . 0 1 1 . 1 2 . 1 4 . 1 6 . 1 8 . 2 0 . 2 2 . 2 8 . 3 2 . 3 6 . 4 5 . 5 0 .	121	132S

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

5.5 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
70	20.59	728	3.88	25256	M 0 9 2 1 2 0 . _ M _ _ _ _ 5 . 5 A - -	162	132S
63	22.87	812	3.52	26068	2 2 .		
55	26.04	919	2.87	26609	2 5 .		
50	28.74	1015	2.6	27177	2 8 .		
45	32.31	1147	2.02	28168	3 2 .		
40	35.67	1258	1.86	27558	3 6 .		
36	40.25	1421	1.74	28377	4 0 .		
32	44.44	1570	1.57	29107	4 5 .		
29	49.07	1729	1.4	29046	5 0 .		
26	55.18	1939	1.04	28919	5 6 .		
24	61.13	2154	1.15	28821	6 3 .		
21	68.74	2416	1.02	28624	7 1 .		
48	29.99	1059	3.56	38534	M 1 0 2 1 2 8 . _ M _ _ _ _ 5 . 5 A - -	208	132S
41	35.44	1252	3.52	40553	3 6 .		
39	37.06	1309	3.18	41131	4 0 .		
34	42.7	1505	2.76	42931	4 5 .		
30	47.93	1681	2.49	44336	5 0 .		
28	51.49	1816	2.13	45266	5 6 .		
25	57.75	2020	2.06	46900	6 3 .		
23	62.05	2173	1.91	47854	7 1 .		
24	60.23	2100	1.79	29277	M 1 0 3 1 5 6 . _ M _ _ _ _ 5 . 5 A - -	235	132S
22	66.93	2332	1.62	29277	6 3 .		
20	71.17	2479	1.78	29277	7 1 .		
18	79.08	2753	1.6	46853	8 0 .		
15	95.44	3329	1.13	45738	9 0 .		
13	109.97	3831	0.98	44866	1 0 0		
13	112.77	3926	1.12	44866	1 1 2		
11	129.94	4522	0.98	43934	1 2 5		
11	135.88	4711	0.88	43739	1 4 0		
25	56.93	1981	3.12	66701	M 1 3 3 1 5 6 . _ M _ _ _ _ 5 . 5 A - -	290	132S
22	64.17	2244	2.76	66848	6 3 .		
20	71.32	2476	2.56	66731	7 1 .		
18	80.39	2791	2.28	66754	8 0 .		
16	90.75	3150	1.97	66650	9 0 .		
14	101.07	3507	1.77	66477	1 0 0		
13	113.69	3929	1.62	66161	1 1 2		
11	126.62	4374	1.45	65938	1 2 5		
10	139.07	4789	1.35	65838	1 4 0		
9.3	154.89	5331	1.21	65715	1 6 0		
8.3	173.37	6001	1.06	65436	1 8 0		
7.8	184.46	6394	0.99	65336	2 0 0		
6.8	212.09	7316	0.88	65042	2 2 5		
17	86.76	3000	3.67	80900	M 1 4 3 1 8 0 . _ M _ _ _ _ 5 . 5 A - -	419	132S
15	94.35	3269	3.39	80900	9 0 .		
14	102.23	3553	3.12	80900	1 0 0		
12	124.89	4320	2.55	80900	1 1 2		
11	135.31	4686	2.35	80900	1 2 5		
10	142.66	4906	2.06	80900	1 4 0		
9.3	154.57	5327	1.9	80900	1 6 0		
7.8	185.56	6419	1.71	80900	1 8 0		
6.9	208.15	7183	1.53	80900	2 0 0		
6.8	211.96	7302	1.38	80900	2 2 5		
5.8	246.73	8476	1.25	80613	M 1 4 4 1 2 2 5 _ M _ _ _ _ 5 . 5 A - -	442	132S
5.3	271.4	9321	1.14	80613	2 5 0		
4.6	311.86	10705	0.99	80613	2 8 0		
4	353.64	12121	0.87	80613	3 0 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

5.5 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
761	1.26	68	1.57	4600	M 0 7 1 2 1 . 2 _ M _ _ _ _ 5 . 5 C _ _	78	132M
261	3.68	195	1.57	7690	M 0 7 2 2 3 . 6 _ M _ _ _ _ 5 . 5 C _ _	92	132M
188	5.09	270	1.57	8020			
168	5.72	303	1.57	8120			
153	6.29	334	1.57	8180			
117	8.22	436	1.57	7200			
103	9.34	495	1.5	6720			
85	11.35	602	1.28	5860			
77	12.48	662	1.2	5320			
67	14.34	760	1.06	4379			
59	16.26	861	0.95	3369			
54	17.94	952	0.87	2409			
261	3.68	195	3.16	14328	M 0 8 2 2 3 . 6 _ M _ _ _ _ 5 . 5 C _ _	125	132M
184	5.21	276	3.16	15164			
166	5.79	307	3.16	15442			
149	6.44	341	3.16	15614			
115	8.33	442	2.89	15800			
103	9.35	494	2.69	15821			
84	11.47	609	2.35	15777			
74	12.92	685	2.15	15980			
64	15.04	796	1.95	15225			
58	16.69	882	1.61	15146			
53	18.26	966	1.41	13651			
46	20.66	1094	1.33	12713			
41	23.32	1236	1.24	12500			
34	28.27	1495	1.1	12500			
29	32.97	1741	0.95	8500			
27	36.21	1914	0.86	6963			
66	14.53	774	3.69	25700	M 0 9 2 1 1 4 . _ M _ _ _ _ 5 . 5 C _ _	166	132M
58	16.59	885	2.98	25816			
52	18.43	981	2.69	26386			
47	20.59	1100	2.6	27367			
42	22.87	1219	2.35	27621			
37	26.04	1382	1.91	26812			
33	28.74	1526	1.73	26437			
30	32.31	1715	1.55	26375			
27	35.67	1894	1.42	25795			
24	40.25	2132	1.16	26575			
22	44.44	2354	1.05	28690			
20	49.07	2595	1.07	28030			
32	29.99	1595	2.36	42700	M 1 0 2 1 2 8 . _ M _ _ _ _ 5 . 5 C _ _	212	132M
31	30.76	1627	2.71	43141			
27	35.44	1880	2.35	44541			
26	37.06	1955	2.13	45717			
22	42.7	2265	1.84	47316			
20	47.93	2528	1.67	46245			
19	51.49	2714	1.43	46800			
17	57.75	3042	1.37	46437			
15	62.05	3259	1.28	46050			
16	60.23	3156	1.19	49200	M 1 0 3 1 5 6 . _ M _ _ _ _ 5 . 5 C _ _	239	132M
14	66.93	3508	1.07	49000			
13	71.17	3725	1.18	48900			
12	79.08	4139	1.07	44490			
27	35.52	1867	3.4	66700	M 1 3 2 1 3 6 . _ M _ _ _ _ 5 . 5 C _ _	272	132M
25	39.01	2041	3.16	66700			
22	43.45	2277	2.84	66600			
24	39.93	2094	2.84	66700	M 1 3 3 1 4 0 . _ M _ _ _ _ 5 . 5 C _ _	294	132M
22	44.18	2312	2.75	66600			
19	50.02	2606	2.44	66500			
17	56.93	2991	2.07	66637			
15	64.17	3376	1.84	66654			
13	71.32	3719	1.71	66491			
12	80.39	4192	1.51	66391			
11	90.75	4729	1.31	66193			
9.5	101.07	5262	1.18	66062			
8.4	113.69	5899	1.08	65479			
7.6	126.62	6564	0.97	65266			
6.9	139.07	7192	0.9	65100			
6.2	154.89	8002	0.81	64833			
16	59.46	3098	3.58	80900	M 1 4 3 1 5 6 . _ M _ _ _ _ 5 . 5 C _ _	423	132M
15	65.55	3429	3.24	80900			
12	78.7	4087	2.69	80900			
11	86.76	4514	2.44	80900			
10	94.35	4923	2.25	80900			
9.4	102.23	5308	2.09	80900			
7.7	124.89	6477	1.7	80900			
7.1	135.31	7026	1.57	80900			
6.7	142.66	7367	1.37	80900			
6.2	154.57	7992	1.26	80900			
5.2	185.56	9633	1.14	80900			
4.6	208.15	10784	1.02	80713			
4.5	211.96	10956	0.92	80700			

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

7.5 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
393	3.68	175	1.74	7265	M 0 7 2 2 3 . 6 _ M _ _ _ _ 7 . 5 A - -	92	132M
284	5.09	244	1.74	7470	5 . 0		
253	5.72	274	1.74	7415	5 . 6		
230	6.29	301	1.74	7310	6 . 3		
176	8.22	396	1.59	6860	8 . 0		
155	9.34	449	1.47	6545	9 . 0		
127	11.35	545	1.31	5134	1 1 .		
116	12.48	599	1.23	4621	1 2 .		
101	14.34	689	1.1	3952	1 4 .		
89	16.26	780	1.01	4148	1 6 .		
81	17.94	862	0.92	5440	1 8 .		
70	20.54	985	0.82	4570	2 0 .		
393	3.68	175	3.49	13458	M 0 8 2 2 3 . 6 _ M _ _ _ _ 7 . 5 A - -	125	132M
277	5.21	250	3.49	13997	5 . 0		
249	5.79	278	3.49	14177	5 . 6		
224	6.44	311	3.37	14357	6 . 3		
173	8.33	402	2.91	14612	8 . 0		
155	9.35	450	2.71	14670	9 . 0		
126	11.47	550	2.38	14656	1 1 .		
112	12.92	618	2.17	14523	1 2 .		
96	15.04	726	1.95	14395	1 4 .		
87	16.69	797	1.78	13028	1 6 .		
79	18.26	874	1.55	12740	1 8 .		
70	20.66	989	1.47	12230	2 0 .		
62	23.32	1125	1.37	11635	2 2 .		
51	28.27	1352	1.18	10034	2 8 .		
44	32.97	1578	1.03	10100	3 2 .		
40	36.21	1731	0.95	8800	3 6 .		
113	12.74	615	3.93	22600	M 0 9 2 1 1 2 . _ M _ _ _ _ 7 . 5 A - -	166	132M
99	14.53	702	3.6	23200	1 4 .		
87	16.59	801	3.27	23212	1 6 .		
78	18.43	886	2.98	23415	1 8 .		
70	20.59	990	2.86	24134	2 0 .		
63	22.87	1103	2.59	24702	2 2 .		
55	26.04	1249	2.11	25554	2 5 .		
50	28.74	1379	1.91	25813	2 8 .		
45	32.31	1558	1.49	26659	3 2 .		
41	35.67	1709	1.37	25925	3 6 .		
36	40.25	1932	1.28	27400	4 0 .		
33	44.44	2134	1.16	28800	4 5 .		
29	49.07	2350	1.03	28700	5 0 .		
56	26.03	1249	3.02	36300	M 1 0 2 1 2 5 . _ M _ _ _ _ 7 . 5 A - -	212	132M
48	29.99	1440	2.62	37839	2 8 .		
47	30.76	1475	2.99	38185	3 2 .		
41	35.44	1702	2.59	39480	3 6 .		
39	37.06	1778	2.34	40372	4 0 .		
34	42.7	2046	2.03	42040	4 5 .		
30	47.93	2285	1.83	43318	5 0 .		
28	51.49	2468	1.57	44200	5 6 .		
25	57.75	2746	1.51	45700	6 3 .		
23	62.05	2953	1.41	46576	7 1 .		
24	60.23	2854	1.32	29100	M 1 0 3 1 5 6 . _ M _ _ _ _ 7 . 5 A - -	239	132M
22	66.93	3170	1.19	29100	6 3 .		
20	71.17	3369	1.31	29100	7 1 .		
18	79.08	3741	1.18	45200	8 0 .		
15	95.44	4525	0.83	43700	9 0 .		
13	112.77	5335	0.83	42500	1 1 2		
41	35.52	1688	3.76	66500	M 1 3 2 1 3 6 . _ M _ _ _ _ 7 . 5 A - -	272	132M
37	39.01	1855	3.48	66800	4 0 .		
33	43.45	2060	3.14	66700	4 5 .		
25	56.93	2692	2.3	66670	M 1 3 3 1 5 6 . _ M _ _ _ _ 7 . 5 A - -	294	132M
23	64.17	3049	2.03	66779	6 3 .		
20	71.32	3365	1.89	66640	7 1 .		
18	80.39	3792	1.67	66637	8 0 .		
16	90.75	4280	1.45	66450	9 0 .		
14	101.07	4766	1.3	66300	1 0 0		
13	113.69	5339	1.19	65700	1 1 2		
11	126.62	5944	1.07	65400	1 2 5		
10	139.07	6508	0.99	65300	1 4 0		
9.3	154.89	7245	0.89	65100	1 6 0		
24	59.46	2812	3.73	66400	M 1 4 3 1 5 6 . _ M _ _ _ _ 7 . 5 A - -	423	132M
22	65.55	3097	3.45	66400	6 3 .		
18	78.7	3712	2.96	66400	7 1 .		
17	86.76	4078	2.7	80900	8 0 .		
15	94.35	4443	2.5	80900	9 0 .		
14	102.23	4828	2.3	80900	1 0 0		
12	124.89	5871	1.87	80900	1 1 2		
11	135.31	6368	1.73	80900	1 2 5		
10	142.66	6667	1.51	80900	1 4 0		
9.3	154.57	7239	1.4	80900	1 6 0		
7.8	185.56	8723	1.26	80900	1 8 0		
6.9	208.15	9762	1.13	80900	2 0 0		
6.8	211.96	9923	1.02	80900	2 2 5		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

7.5 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
261	3.68	265	2.32	14100	M 0 8 2 2 3 . 6 _ M _ _ _ _ 7 . 5 C - -	159	160M
184	5.21	377	2.32	14850	5 . 0		
166	5.79	419	2.32	15100	5 . 6		
149	6.44	465	2.32	15100	6 . 3		
115	8.33	603	2.12	14600	8 . 0		
103	9.35	673	1.97	14250	9 . 0		
84	11.47	831	1.72	13480	1 1 .		
74	12.92	934	1.57	13155	1 2 .		
64	15.04	1086	1.43	11965	1 4 .		
58	16.69	1203	1.18	11344	1 6 .		
53	18.26	1317	1.03	9803	1 8 .		
46	20.66	1491	0.98	8297	2 0 .		
41	23.32	1688	0.91	7954	2 2 .		
34	28.27	2038	0.81	7954	2 8 .		
117	8.22	597	3.95	22500	M 0 9 2 1 8 . 0 _ M _ _ _ _ 7 . 5 C - -	200	160M
104	9.19	668	3.67	23000	9 . 0		
94	10.27	747	3.39	23300	1 0 .		
82	11.71	849	3.11	22983	1 1 .		
75	12.74	925	2.96	23358	1 2 .		
66	14.53	1056	2.71	24062	1 4 .		
58	16.59	1207	2.19	24105	1 6 .		
52	18.43	1337	1.97	24368	1 8 .		
47	20.59	1500	1.91	25190	2 0 .		
42	22.87	1662	1.72	25117	2 2 .		
37	26.04	1885	1.4	24662	2 5 .		
33	28.74	2082	1.27	23987	2 8 .		
30	32.31	2338	1.14	23875	3 2 .		
27	35.67	2583	1.04	22912	3 6 .		
24	40.25	2908	0.85	24802	4 0 .		
58	16.43	1193	3.16	35800	M 1 0 2 1 1 6 . _ M _ _ _ _ 7 . 5 C - -	246	160M
53	18.25	1321	2.85	36900	1 8 .		
49	19.41	1407	3.13	37700	2 0 .		
45	21.57	1560	2.83	38800	2 2 .		
37	26.03	1885	2	40900	2 5 .		
32	29.99	2175	1.73	40566	2 8 .		
31	30.76	2219	1.99	41063	3 2 .		
27	35.44	2563	1.72	41797	3 6 .		
26	37.06	2666	1.56	43606	4 0 .		
22	42.7	3089	1.35	45650	4 5 .		
20	47.93	3447	1.22	43962	5 0 .		
19	51.49	3702	1.05	45163	5 6 .		
17	57.75	4148	1	44642	6 3 .		
15	62.05	4444	0.94	44140	7 1 .		
16	60.23	4303	0.88	49200	M 1 0 3 1 5 6 . _ M _ _ _ _ 7 . 5 C - -	272	160M
13	71.17	5080	0.87	48900	7 1 .		
38	25.45	1830	3.39	66800	M 1 3 2 1 2 5 . _ M _ _ _ _ 7 . 5 C - -	307	160M
34	28.35	2039	3.04	66700	2 8 .		
30	31.89	2289	2.77	66600	3 2 .		
27	35.52	2546	2.49	65973	3 6 .		
25	39.01	2784	2.32	65712	4 0 .		
22	43.45	3105	2.08	66345	4 5 .		
24	39.93	2855	2.08	66700	M 1 3 3 1 4 0 . _ M _ _ _ _ 7 . 5 C - -	329	160M
22	44.18	3153	2.01	66600	4 5 .		
19	50.02	3554	1.79	66500	5 0 .		
17	56.93	4078	1.52	66555	5 6 .		
15	64.17	4603	1.35	66538	6 3 .		
13	71.32	5071	1.25	66325	7 1 .		
12	80.39	5717	1.11	66225	8 0 .		
11	90.75	6449	0.96	65868	9 0 .		
9.5	101.07	7175	0.86	65712	1 0 0		
24	39.42	2815	3.59	80900	M 1 4 2 1 4 0 . _ M _ _ _ _ 7 . 5 C - -	415	160M
22	42.71	3054	3.31	80900	4 5 .		
23	41.36	2960	3.55	66400	M 1 4 3 1 4 0 . _ M _ _ _ _ 7 . 5 C - -	460	160M
20	48.21	3423	3.21	66400	4 5 .		
18	54.75	3891	2.83	66400	5 0 .		
16	59.46	4225	2.63	80900	5 6 .		
15	65.55	4676	2.37	80900	6 3 .		
12	78.7	5574	1.97	80900	7 1 .		
11	86.76	6156	1.79	80900	8 0 .		
10	94.35	6713	1.65	80900	9 0 .		
9.4	102.23	7239	1.53	80900	1 0 0		
7.7	124.89	8832	1.25	80900	1 1 2		
7.1	135.31	9581	1.15	80900	1 2 5		
6.7	142.66	10046	1.01	80900	1 4 0		
6.2	154.57	10899	0.93	80900	1 6 0		
5.2	185.56	13136	0.84	80900	1 8 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

11.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
392	3.68	258	1.18	7040	M 0 7 2 2 3 . 6 _ M _ _ _ _ 1 1 . A - -	128	160M
283	5.09	359	1.18	7160	5 . 0		
252	5.72	403	1.18	6900	5 . 6		
229	6.29	443	1.18	6570	6 . 3		
175	8.22	584	1.08	5350	8 . 0		
154	9.34	661	1	4580	9 . 0		
394	3.68	257	2.39	13197	M 0 8 2 2 3 . 6 _ M _ _ _ _ 1 1 . A - -	159	160M
278	5.21	365	2.39	13625	5 . 0		
250	5.79	406	2.39	13768	5 . 6		
225	6.44	454	2.31	13910	6 . 3		
174	8.33	587	1.99	13346	8 . 0		
155	9.35	657	1.85	12957	9 . 0		
126	11.47	805	1.63	11998	1 1 .		
112	12.92	904	1.48	11250	1 2 .		
96	15.04	1062	1.34	10151	1 4 .		
87	16.69	1165	1.22	8656	1 6 .		
79	18.26	1278	1.06	8493	1 8 .		
70	20.66	1446	1.01	7120	2 0 .		
62	23.32	1644	0.94	5517	2 2 .		
51	28.27	1976	0.8	2284	2 8 .		
196	7.4	522	3.83	20209	M 0 9 2 1 7 . 1 _ M _ _ _ _ 1 1 . A - -	200	160M
176	8.22	579	3.59	20624	8 . 0		
158	9.19	648	3.35	21072	9 . 0		
141	10.27	726	3.08	20720	1 0 .		
124	11.71	827	2.83	21211	1 1 .		
114	12.74	899	2.69	21464	1 2 .		
100	14.53	1026	2.46	21675	1 4 .		
87	16.59	1171	2.24	21760	1 6 .		
79	18.43	1296	2.04	21601	1 8 .		
70	20.59	1447	1.95	22170	2 0 .		
63	22.87	1613	1.77	22312	2 2 .		
56	26.04	1826	1.45	23709	2 5 .		
50	28.74	2016	1.31	23427	2 8 .		
45	32.31	2278	1.02	24018	3 2 .		
41	35.67	2499	0.94	23066	3 6 .		
36	40.25	2824	0.87	25688	4 0 .		
88	16.43	1155	3.26	32215	M 1 0 2 1 1 6 . _ M _ _ _ _ 1 1 . A - -	246	160M
79	18.25	1283	2.94	32896	1 8 .		
75	19.41	1362	3.24	33324	2 0 .		
67	21.57	1515	2.91	32667	2 2 .		
56	26.03	1826	2.06	35310	2 5 .		
48	29.99	2105	1.79	36623	2 8 .		
47	30.76	2156	2.05	37054	3 2 .		
41	35.44	2487	1.77	37602	3 6 .		
39	37.06	2600	1.6	39044	4 0 .		
34	42.7	2990	1.39	40481	4 5 .		
30	47.93	3339	1.25	41536	5 0 .		
28	51.49	3607	1.07	42333	5 6 .		
25	57.75	4014	1.04	43600	6 3 .		
23	62.05	4316	0.96	44339	7 1 .		
24	60.23	4172	0.9	28788	M 1 0 3 1 5 6 . _ M _ _ _ _ 1 1 . A - -	272	160M
22	66.93	4633	0.81	28788	6 3 .		
20	71.17	4924	0.9	28788	7 1 .		
57	25.45	1780	3.48	60039	M 1 3 2 1 2 5 . _ M _ _ _ _ 1 1 . A - -	307	160M
51	28.35	1982	3.13	61744	2 8 .		
45	31.89	2224	2.85	63271	3 2 .		
41	35.52	2468	2.57	65208	3 6 .		
37	39.01	2712	2.38	65228	4 0 .		
33	43.45	3011	2.15	66000	4 5 .		
36	39.93	2777	1.99	50560	M 1 3 3 1 4 0 . _ M _ _ _ _ 1 1 . A - -	329	160M
33	44.18	3057	2.02	50560	4 5 .		
29	50.02	3453	1.83	50560	5 0 .		
25	56.93	3935	1.57	66616	5 6 .		
23	64.17	4457	1.39	66658	6 3 .		
20	71.32	4919	1.29	66481	7 1 .		
18	80.39	5543	1.15	66433	8 0 .		
16	90.75	6256	0.99	66100	9 0 .		
14	101.07	6966	0.89	65988	1 0 0		
37	39.42	2740	3.63	80924	M 1 4 2 1 4 0 . _ M _ _ _ _ 1 1 . A - -	415	160M
34	42.71	2964	3.37	80900	4 5 .		
35	41.36	2857	3.41	66432	M 1 4 3 1 4 0 . _ M _ _ _ _ 1 1 . A - -	460	160M
30	48.21	3324	3.31	66432	4 5 .		
26	54.75	3769	2.92	66432	5 0 .		
24	59.46	4110	2.55	66275	5 6 .		
22	65.55	4526	2.36	66275	6 3 .		
18	78.7	5426	2.03	66206	7 1 .		
17	86.76	5960	1.85	80900	8 0 .		
15	94.35	6494	1.71	80900	9 0 .		
14	102.23	7057	1.57	80900	1 0 0		
12	124.89	8581	1.28	80900	1 1 2		
11	135.31	9307	1.18	80900	1 2 5		
10	142.66	9745	1.04	80900	1 4 0		
9.4	154.57	10580	0.95	80900	1 6 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

11.0 kW

6 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
262	3.68	388	1.59	13700	M 0 8 2 2 3 . 6 _ M _ _ _ _ 1 1 . C - -	173	160L
185	5.21	550	1.59	14300	5 . 0		
167	5.79	611	1.59	14500	5 . 6		
150	6.44	679	1.59	14200	6 . 3		
116	8.33	880	1.45	12500	8 . 0		
103	9.35	983	1.35	11500	9 . 0		
84	11.47	1213	1.18	9460	1 1 .		
75	12.92	1363	1.08	8210	1 2 .		
64	15.04	1585	0.98	6260	1 4 .		
58	16.69	1755	0.81	4690	1 6 .		
262	3.69	394	2.76	19200	M 0 9 2 1 3 . 6 _ M _ _ _ _ 1 1 . C - -	214	160L
211	4.58	488	3.89	20000	4 . 5		
190	5.07	538	3.67	20400	5 . 0		
170	5.69	602	3.42	20800	5 . 6		
146	6.63	702	3.09	21200	6 . 3		
130	7.4	785	2.88	21135	7 . 1		
117	8.22	872	2.7	21442	8 . 0		
105	9.19	974	2.51	21615	9 . 0		
94	10.27	1089	2.32	21371	1 0 .		
82	11.71	1239	2.13	20678	1 1 .		
76	12.74	1350	2.03	21011	1 2 .		
66	14.53	1541	1.86	21196	1 4 .		
58	16.59	1761	1.5	21111	1 6 .		
52	18.43	1951	1.35	20837	1 8 .		
47	20.59	2188	1.31	21381	2 0 .		
42	22.87	2426	1.18	20734	2 2 .		
37	26.04	2751	0.96	20900	2 5 .		
34	28.74	3037	0.87	19700	2 8 .		
91	10.59	1121	3.36	32000	M 1 0 2 1 1 0 . _ M _ _ _ _ 1 1 . C - -	260	160L
81	11.98	1269	2.97	32600	1 1 .		
77	12.51	1322	3.33	32900	1 2 .		
68	14.16	1498	2.94	33600	1 4 .		
59	16.43	1740	2.17	33980	1 6 .		
53	18.25	1927	1.96	34597	1 8 .		
50	19.41	2053	2.15	35273	2 0 .		
45	21.57	2276	1.94	35797	2 2 .		
37	26.03	2750	1.37	37882	2 5 .		
32	29.99	3173	1.19	36833	2 8 .		
31	30.76	3238	1.36	37427	3 2 .		
27	35.44	3740	1.18	36994	3 6 .		
26	37.06	3890	1.07	39913	4 0 .		
23	42.7	4507	0.92	42733	4 5 .		
20	47.93	5030	0.84	39966	5 0 .		
54	18	1900	3.26	60900	M 1 3 2 1 1 8 . _ M _ _ _ _ 1 1 . C - -	321	160L
48	20	2105	3.02	62800	2 0 .		
43	22.55	2371	2.68	64800	2 2 .		
38	25.45	2671	2.32	64812	2 5 .		
34	28.35	2975	2.08	64896	2 8 .		
30	31.89	3340	1.9	64772	3 2 .		
27	35.52	3715	1.71	64702	3 6 .		
25	39.01	4062	1.59	63983	4 0 .		
22	43.45	4531	1.43	65900	4 5 .		
24	39.93	4166	1.43	66700	M 1 3 3 1 4 0 . _ M _ _ _ _ 1 1 . C - -	343	160L
22	44.18	4601	1.38	66600	4 5 .		
19	50.02	5185	1.22	66500	5 0 .		
17	56.93	5951	1.04	66410	5 6 .		
15	64.17	6717	0.92	66335	6 3 .		
14	71.32	7400	0.86	66033	7 1 .		
34	28.25	2967	3.36	80900	M 1 4 2 1 2 8 . _ M _ _ _ _ 1 1 . C - -	429	160L
28	34.51	3625	2.95	80900	3 2 .		
26	37.39	3913	2.76	80900	3 6 .		
24	39.42	4108	2.46	80853	4 0 .		
23	42.71	4456	2.27	80864	4 5 .		
23	41.36	4319	2.43	66135	M 1 4 3 1 4 0 . _ M _ _ _ _ 1 1 . C - -	474	160L
20	48.21	4994	2.2	66135	4 5 .		
18	54.75	5677	1.94	66135	5 0 .		
16	59.46	6165	1.8	80900	5 6 .		
15	65.55	6824	1.63	80900	6 3 .		
12	78.7	8133	1.35	80900	7 1 .		
11	86.76	8983	1.22	80900	8 0 .		
10	94.35	9795	1.13	80900	9 0 .		
9.4	102.23	10562	1.05	80900	1 0 0		
7.7	124.89	12887	0.85	80900	1 1 2		

SERIES M

SELECTION TABLES

GEARED MOTORS

15.0 kW

4 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
396	3.68	349	1.76	12900	M 0 8 2 2 3 . 6 _ M _ _ _ _ 1 5 . A - -	173	160L
279	5.21	496	1.76	13200	5 . 0		
251	5.79	552	1.76	13300	5 . 6		
226	6.44	617	1.7	13400	6 . 3		
175	8.33	798	1.47	11900	8 . 0		
156	9.35	893	1.36	11000	9 . 0		
127	11.47	1093	1.2	8959	1 1 .		
113	12.92	1228	1.09	7509	1 2 .		
97	15.04	1444	0.98	5299	1 4 .		
87	16.69	1584	0.9	3659	1 6 .		
441	3.3	319	3.41	17400	M 0 9 2 1 3 . 2 _ M _ _ _ _ 1 5 . A - -	214	160L
394	3.69	356	3.06	18000	3 . 6		
318	4.58	440	3.81	18700	4 . 5		
287	5.07	487	3.59	18900	5 . 0		
256	5.69	544	3.34	19200	5 . 6		
220	6.63	636	3.02	19500	6 . 3		
197	7.4	710	2.82	19772	7 . 1		
177	8.22	787	2.64	20127	8 . 0		
158	9.19	881	2.46	20381	9 . 0		
142	10.27	987	2.27	19486	1 0 .		
124	11.71	1124	2.08	19966	1 1 .		
114	12.74	1222	1.98	20166	1 2 .		
100	14.53	1395	1.81	19933	1 4 .		
88	16.59	1592	1.65	20102	1 6 .		
79	18.43	1761	1.5	19528	1 8 .		
71	20.59	1967	1.44	19926	2 0 .		
64	22.87	2192	1.3	19580	2 2 .		
56	26.04	2482	1.06	21600	2 5 .		
51	28.74	2740	0.96	20700	2 8 .		
137	10.59	1014	3.63	29400	M 1 0 2 1 1 0 . _ M _ _ _ _ 1 5 . A - -	260	160L
121	11.98	1147	3.28	30000	1 1 .		
116	12.51	1196	3.25	30200	1 2 .		
103	14.16	1351	3	30954	1 4 .		
89	16.43	1569	2.4	31354	1 6 .		
80	18.25	1744	2.16	31312	1 8 .		
75	19.41	1851	2.38	31628	2 0 .		
67	21.57	2060	2.14	30688	2 2 .		
56	26.03	2482	1.52	34179	2 5 .		
49	29.99	2860	1.32	35232	2 8 .		
47	30.76	2929	1.51	35762	3 2 .		
41	35.44	3380	1.3	35456	3 6 .		
39	37.06	3533	1.18	37527	4 0 .		
34	42.7	4064	1.02	38700	4 5 .		
30	47.93	4538	0.92	39500	5 0 .		
81	18	1719	3.61	55200	M 1 3 2 1 1 8 . _ M _ _ _ _ 1 5 . A - -	321	160L
73	20	1902	3.34	56100	2 0 .		
65	22.55	2142	2.96	56772	2 2 .		
57	25.45	2419	2.56	58681	2 5 .		
51	28.35	2694	2.3	60368	2 8 .		
46	31.89	3023	2.1	61752	3 2 .		
41	35.52	3354	1.89	63733	3 6 .		
37	39.01	3685	1.75	63433	4 0 .		
33	43.45	4091	1.58	65200	4 5 .		
36	39.93	3774	1.47	49920	M 1 3 3 1 4 0 . _ M _ _ _ _ 1 5 . A - -	343	160L
33	44.18	4154	1.49	49920	4 5 .		
29	50.02	4692	1.34	49920	5 0 .		
26	56.93	5348	1.16	66554	5 6 .		
23	64.17	6057	1.02	66520	6 3 .		
20	71.32	6684	0.95	66300	7 1 .		
18	80.39	7533	0.84	66200	8 0 .		
52	28.25	2680	3.72	79400	M 1 4 2 1 2 8 . _ M _ _ _ _ 1 5 . A - -	429	160L
42	34.51	3277	3.26	80900	3 2 .		
39	37.39	3540	3.05	80900	3 6 .		
37	39.42	3724	2.67	80827	4 0 .		
34	42.71	4029	2.48	80900	4 5 .		
35	41.36	3882	2.51	66304	M 1 4 3 1 4 0 . _ M _ _ _ _ 1 5 . A - -	474	160L
30	48.21	4517	2.44	66304	4 5 .		
27	54.75	5122	2.15	66304	5 0 .		
24	59.46	5585	1.88	66133	5 6 .		
22	65.55	6151	1.74	66133	6 3 .		
18	78.7	7373	1.49	65986	7 1 .		
17	86.76	8100	1.36	80900	8 0 .		
15	94.35	8825	1.26	80900	9 0 .		
14	102.23	9591	1.16	80900	1 0 0		
12	124.89	11661	0.94	80900	1 1 2		
11	135.31	12648	0.87	80900	1 2 5		

SERIES M

SELECTION TABLES

GEARED MOTORS

15.0 kW

6 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
656	1.48	213	3.49	15400	M 0 9 2 1 1 . 4 _ M _ _ _ _ 1 5 . C - -	313	180L
476	2.04	295	3.49	17100	1 . 8		
425	2.28	331	3.29	17700	2 . 2		
379	2.56	371	2.93	18200	2 . 5		
327	2.97	427	3.49	18600	2 . 8		
294	3.3	478	2.28	18700	3 . 2		
263	3.69	535	2.03	18884	3 . 6		
237	4.09	587	3.08	19305	4 . 0		
212	4.58	662	2.87	19663	4 . 5		
191	5.07	731	2.71	20042	5 . 0		
171	5.69	817	2.52	20400	5 . 6		
146	6.63	953	2.28	20336	6 . 3		
131	7.4	1065	2.12	20033	7 . 1		
118	8.22	1183	1.99	20233	8 . 0		
106	9.19	1322	1.85	20033	9 . 0		
94	10.27	1478	1.71	19166	1 0 .		
83	11.71	1682	1.57	18045	1 1 .		
76	12.74	1832	1.5	18329	1 2 .		
67	14.53	2091	1.37	17921	1 4 .		
58	16.59	2389	1.1	17688	1 6 .		
53	18.43	2648	1	16802	1 8 .		
47	20.59	2969	0.96	17028	2 0 .		
42	22.87	3291	0.87	15725	2 2 .		
443	2.19	315	3.49	23700	M 1 0 2 1 2 . 2 _ M _ _ _ _ 1 5 . C - -	359	180L
390	2.49	358	3.49	24700	2 . 5		
324	2.99	429	3.49	26000	2 . 8		
299	3.24	468	3.35	26100	3 . 2		
277	3.5	505	3.11	26300	3 . 6		
232	4.18	598	3.49	27100	4 . 0		
213	4.55	653	3.49	27300	4 . 5		
196	4.94	707	3.49	27700	5 . 0		
181	5.37	770	3.49	28100	5 . 6		
144	6.72	965	3.49	29200	6 . 3		
134	7.26	1043	3.49	29500	7 . 1		
122	7.95	1139	3.3	30000	8 . 0		
113	8.58	1230	3.15	30400	9 . 0		
92	10.59	1520	2.48	31305	1 0 .		
81	11.98	1722	2.19	31821	1 1 .		
78	12.51	1794	2.45	32100	1 2 .		
68	14.16	2033	2.17	32315	1 4 .		
59	16.43	2361	1.6	31900	1 6 .		
53	18.25	2615	1.44	31966	1 8 .		
50	19.41	2785	1.58	32500	2 0 .		
45	21.57	3088	1.43	32366	2 2 .		
37	26.03	3731	1.01	34434	2 5 .		
32	29.99	4305	0.88	32566	2 8 .		
32	30.76	4393	1	33272	3 2 .		
27	35.44	5075	0.87	31505	3 6 .		
78	12.39	1771	3.58	55600	M 1 3 2 1 1 2 . _ M _ _ _ _ 1 5 . C - -	419	180L
69	14.03	2008	3.13	56600	1 4 .		
61	15.97	2289	2.71	58200	1 6 .		
54	18	2578	2.4	59209	1 8 .		
48	20	2856	2.22	60900	2 0 .		
43	22.55	3217	1.97	62554	2 2 .		
38	25.45	3623	1.71	62540	2 5 .		
34	28.35	4036	1.54	62835	2 8 .		
30	31.89	4532	1.4	62684	3 2 .		
27	35.52	5041	1.26	63248	3 6 .		
25	39.01	5511	1.17	62008	4 0 .		
22	43.45	6147	1.05	65390	4 5 .		
24	39.93	5652	1.05	66700	M 1 3 3 1 4 0 . _ M _ _ _ _ 1 5 . C - -	441	180L
22	44.18	6242	1.02	66600	4 5 .		
19	50.02	7034	0.9	66500	5 0 .		
40	23.97	3425	3.15	80900	M 1 4 2 1 2 2 . _ M _ _ _ _ 1 5 . C - -	529	180L
37	26.07	3728	2.84	80900	2 5 .		
34	28.25	4025	2.48	79745	2 8 .		
28	34.51	4917	2.18	79109	3 2 .		
26	37.39	5308	2.03	78890	3 6 .		
25	39.42	5573	1.81	80800	4 0 .		
23	42.71	6045	1.67	80823	4 5 .		
23	41.36	5860	1.79	65833	M 1 4 3 1 4 0 . _ M _ _ _ _ 1 5 . C - -	574	180L
20	48.21	6775	1.62	65833	4 5 .		
18	54.75	7702	1.43	65833	5 0 .		
16	59.46	8364	1.33	80900	5 6 .		
15	65.55	9257	1.2	80900	6 3 .		
12	78.7	11033	1	80900	7 1 .		
11	86.76	12186	0.9	80900	8 0 .		
10	94.35	13288	0.84	80900	9 0 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

18.5 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
574	2.56	299	3.6	16006	M 0 9 2 1 2 . 5 _ M _ _ _ _ 1 8 . A - -	299	180M
445	3.3	390	2.79	17283	3 . 2		
399	3.69	435	2.5	17871	3 . 6		
360	4.09	477	3.35	18271	4 . 0		
321	4.58	537	3.12	18560	4 . 5		
290	5.07	594	2.94	18760	5 . 0		
259	5.69	664	2.74	19025	5 . 6		
222	6.63	776	2.47	19255	6 . 3		
199	7.4	866	2.31	19390	7 . 1		
179	8.22	960	2.16	19692	8 . 0		
160	9.19	1076	2.02	19777	9 . 0		
143	10.27	1205	1.86	18406	1 0 .		
126	11.71	1373	1.7	18877	1 1 .		
115	12.74	1491	1.62	19031	1 2 .		
101	14.53	1703	1.49	18408	1 4 .		
89	16.59	1943	1.35	18651	1 6 .		
80	18.43	2150	1.23	17714	1 8 .		
71	20.59	2401	1.18	17963	2 0 .		
64	22.87	2676	1.07	17190	2 2 .		
202	7.26	847	3.8	27300	M 1 0 2 1 7 . 1 _ M _ _ _ _ 1 8 . A - -	345	180M
185	7.95	927	3.59	27700	8 . 0		
171	8.58	1000	3.42	28166	9 . 0		
139	10.59	1238	2.97	29096	1 0 .		
123	11.98	1401	2.69	29661	1 1 .		
118	12.51	1460	2.66	29861	1 2 .		
104	14.16	1649	2.46	30551	1 4 .		
89	16.43	1916	1.97	30601	1 6 .		
81	18.25	2129	1.77	29926	1 8 .		
76	19.41	2260	1.95	30144	2 0 .		
68	21.57	2514	1.75	28955	2 2 .		
56	26.03	3030	1.24	33189	2 5 .		
49	29.99	3492	1.08	34016	2 8 .		
48	30.76	3576	1.23	34631	3 2 .		
41	35.44	4126	1.07	33578	3 6 .		
40	37.06	4313	0.96	36200	4 0 .		
105	14.03	1632	3.85	52700	M 1 3 2 1 1 4 . _ M _ _ _ _ 1 8 . A - -	405	180M
92	15.97	1860	3.33	53508	1 6 .		
82	18	2099	2.95	54351	1 8 .		
73	20	2322	2.73	55137	2 0 .		
65	22.55	2615	2.43	55689	2 2 .		
58	25.45	2954	2.1	57493	2 5 .		
52	28.35	3288	1.89	59164	2 8 .		
46	31.89	3690	1.72	60423	3 2 .		
41	35.52	4094	1.55	62442	3 6 .		
38	39.01	4499	1.44	61862	4 0 .		
34	43.45	4995	1.29	64500	4 5 .		
37	39.93	4607	1.2	49360	M 1 3 3 1 4 0 . _ M _ _ _ _ 1 8 . A - -	427	180M
33	44.18	5071	1.22	49360	4 5 .		
29	50.02	5728	1.1	49360	5 0 .		
26	56.93	6529	0.95	66500	5 6 .		
23	64.17	7394	0.84	66400	6 3 .		
61	23.97	2787	3.87	75200	M 1 4 2 1 2 2 . _ M _ _ _ _ 1 8 . A - -	515	180M
56	26.07	3003	3.5	77000	2 5 .		
52	28.25	3272	3.05	78603	2 8 .		
43	34.51	4001	2.67	79736	3 2 .		
39	37.39	4321	2.5	79675	3 6 .		
37	39.42	4546	2.19	80742	4 0 .		
34	42.71	4918	2.03	80900	4 5 .		
36	41.36	4739	2.05	66192	M 1 4 3 1 4 0 . _ M _ _ _ _ 1 8 . A - -	560	180M
30	48.21	5514	1.99	66192	4 5 .		
27	54.75	6253	1.76	66192	5 0 .		
25	59.46	6818	1.54	66008	5 6 .		
22	65.55	7509	1.42	66008	6 3 .		
19	78.7	9001	1.22	65793	7 1 .		
17	86.76	9888	1.11	80900	8 0 .		
16	94.35	10774	1.03	80900	9 0 .		
14	102.23	11708	0.95	80900	1 0 0		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

18.5 kW

6 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
659	1.48	261	2.84	15306	M 0 9 2 1 1 . 4 _ M _ _ _ _ 1 8 . C - -	368	200L
479	2.04	362	2.84	16936	1 . 8		
427	2.28	406	2.68	17513	2 . 2		
381	2.56	456	2.39	18013	2 . 5		
328	2.97	523	2.84	18413	2 . 8		
295	3.3	587	1.86	18443	3 . 2		
264	3.69	657	1.66	18607	3 . 6		
239	4.09	721	2.51	19047	4 . 0		
213	4.58	812	2.34	19368	4 . 5		
192	5.07	897	2.21	19728	5 . 0		
171	5.69	1003	2.05	20050	5 . 6		
147	6.63	1169	1.86	19581	6 . 3		
132	7.4	1306	1.73	19068	7 . 1		
119	8.22	1452	1.62	19175	8 . 0		
106	9.19	1622	1.51	18648	9 . 0		
95	10.27	1814	1.39	17237	1 0 .		
83	11.71	2063	1.28	15741	1 1 .		
77	12.74	2248	1.22	15982	1 2 .		
67	14.53	2566	1.11	15055	1 4 .		
59	16.59	2932	0.9	14694	1 6 .		
53	18.43	3249	0.81	13271	1 8 .		
676	1.44	253	2.84	20700	M 1 0 2 1 1 . 4 _ M _ _ _ _ 1 8 . C - -	414	200L
484	2.01	355	2.84	23000	1 . 8		
445	2.19	386	2.84	23560	2 . 2		
392	2.49	439	2.84	24536	2 . 5		
326	2.99	527	2.84	25813	2 . 8		
301	3.24	574	2.73	25866	3 . 2		
279	3.5	620	2.53	26066	3 . 6		
233	4.18	734	2.84	26843	4 . 0		
215	4.55	801	2.84	27043	4 . 5		
197	4.94	868	2.84	27420	5 . 0		
182	5.37	945	2.84	27796	5 . 6		
145	6.72	1185	2.84	28803	6 . 3		
134	7.26	1280	2.84	29080	7 . 1		
123	7.95	1397	2.69	29556	8 . 0		
114	8.58	1509	2.56	29910	9 . 0		
92	10.59	1866	2.02	30697	1 0 .		
81	11.98	2112	1.78	31139	1 1 .		
78	12.51	2201	2	31400	1 2 .		
69	14.16	2494	1.77	31192	1 4 .		
59	16.43	2897	1.3	30080	1 6 .		
53	18.25	3208	1.17	29664	1 8 .		
50	19.41	3418	1.29	30073	2 0 .		
45	21.57	3789	1.16	29364	2 2 .		
37	26.03	4578	0.82	31417	2 5 .		
32	30.76	5391	0.82	29636	3 2 .		
336	2.9	510	3.41	44500	M 1 3 2 1 2 . 8 _ M _ _ _ _ 1 8 . C - -	475	200L
306	3.19	560	3.41	45000	3 . 2		
268	3.64	639	3.41	45700	3 . 6		
242	4.03	709	3.41	46300	4 . 0		
221	4.42	780	3.41	46800	4 . 5		
193	5.04	885	3.41	47600	5 . 0		
176	5.54	973	3.41	48400	5 . 6		
157	6.21	1094	3.41	49300	6 . 3		
142	6.88	1214	3.41	50100	7 . 1		
125	7.78	1366	3.41	51200	8 . 0		
113	8.62	1513	3.41	52000	9 . 0		
99	9.89	1742	3.41	53100	1 0 .		
87	11.2	1978	3	54200	1 1 .		
79	12.39	2174	2.92	54733	1 2 .		
69	14.03	2463	2.55	55550	1 4 .		
61	15.97	2809	2.21	56896	1 6 .		
54	18	3163	1.96	57729	1 8 .		
49	20	3505	1.81	59237	2 0 .		
43	22.55	3947	1.61	60589	2 2 .		
38	25.45	4446	1.39	60552	2 5 .		
34	28.35	4953	1.25	61032	2 8 .		
31	31.89	5560	1.14	60857	3 2 .		
27	35.52	6185	1.03	61977	3 6 .		
25	39.01	6762	0.96	60279	4 0 .		
22	43.45	7543	0.86	64945	4 5 .		
24	39.93	6935	0.86	66700	M 1 3 3 1 4 0 . _ M _ _ _ _ 1 8 . C - -	497	200L
22	44.18	7660	0.83	66600	4 5 .		
54	18.11	3174	3.5	78000	M 1 4 2 1 1 8 . _ M _ _ _ _ 1 8 . C - -	586	200L
45	21.75	3808	2.78	80900	2 0 .		
41	23.97	4203	2.57	79692	2 2 .		
37	26.07	4575	2.32	79867	2 5 .		
35	28.25	4939	2.02	78735	2 8 .		
28	34.51	6034	1.77	77542	3 2 .		
26	37.39	6514	1.66	77132	3 6 .		
25	39.42	6839	1.48	80753	4 0 .		
23	42.71	7418	1.36	80788	4 5 .		
24	41.36	7190	1.46	65568	M 1 4 3 1 4 0 . _ M _ _ _ _ 1 8 . C - -	631	200L
20	48.21	8314	1.32	65568	4 5 .		
18	54.75	9451	1.16	65568	5 0 .		
16	59.46	10263	1.08	80900	5 6 .		
15	65.55	11359	0.98	80900	6 3 .		
12	78.7	13538	0.81	80900	7 1 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

22.0 kW

4 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
994	1.48	206	3.6	13447	M 0 9 2 1 1 . 4 _ M _ _ _ 2 2 . A - -	313	180L
722	2.04	284	3.5	14860	1 . 8		
644	2.28	318	3.39	15413	2 . 2		
574	2.56	356	3.03	15913	2 . 5		
495	2.97	412	3.4	16813	2 . 8		
445	3.3	463	2.35	17166	3 . 2		
399	3.69	517	2.11	17743	3 . 6		
360	4.09	568	2.82	18143	4 . 0		
321	4.58	639	2.63	18420	4 . 5		
290	5.07	707	2.47	18620	5 . 0		
259	5.69	789	2.3	18850	5 . 6		
222	6.63	923	2.08	19010	6 . 3		
199	7.4	1030	1.94	19009	7 . 1		
179	8.22	1142	1.82	19257	8 . 0		
160	9.19	1279	1.7	19172	9 . 0		
143	10.27	1433	1.56	17327	1 0 .		
126	11.71	1632	1.43	17788	1 1 .		
115	12.74	1774	1.36	17895	1 2 .		
101	14.53	2025	1.25	16884	1 4 .		
89	16.59	2311	1.13	17200	1 6 .		
80	18.43	2557	1.03	15899	1 8 .		
71	20.59	2856	0.99	15999	2 0 .		
64	22.87	3182	0.9	14800	2 2 .		
1019	1.44	200	3.6	18100	M 1 0 2 1 1 . 4 _ M _ _ _ 2 2 . A - -	359	180L
730	2.01	280	3.6	20100	1 . 8		
671	2.19	305	3.6	20600	2 . 2		
591	2.49	346	3.6	21400	2 . 5		
491	2.99	413	3.6	22800	2 . 8		
453	3.24	451	3.39	23300	3 . 2		
420	3.5	488	3.19	23800	3 . 6		
352	4.18	579	3.6	25300	4 . 0		
323	4.55	632	3.6	25600	4 . 5		
298	4.94	685	3.6	25900	5 . 0		
274	5.37	746	3.6	26200	5 . 6		
219	6.72	934	3.36	26800	6 . 3		
202	7.26	1008	3.19	27101	7 . 1		
185	7.95	1103	3.02	27501	8 . 0		
171	8.58	1189	2.88	27933	9 . 0		
139	10.59	1473	2.5	28793	1 0 .		
123	11.98	1666	2.26	29323	1 1 .		
118	12.51	1736	2.24	29523	1 2 .		
104	14.16	1961	2.06	30148	1 4 .		
89	16.43	2278	1.65	29848	1 6 .		
81	18.25	2532	1.49	28540	1 8 .		
76	19.41	2688	1.64	28660	2 0 .		
68	21.57	2990	1.47	27223	2 2 .		
56	26.03	3604	1.05	32200	2 5 .		
49	29.99	4152	0.91	32800	2 8 .		
48	30.76	4253	1.04	33500	3 2 .		
41	35.44	4907	0.9	31700	3 6 .		
131	11.2	1558	3.81	50400	M 1 3 2 1 1 1 . _ M _ _ _ 2 2 . A - -	419	180L
119	12.39	1716	3.7	51300	1 2 .		
105	14.03	1941	3.24	52018	1 4 .		
92	15.97	2212	2.8	52817	1 6 .		
82	18	2496	2.48	53502	1 8 .		
73	20	2761	2.3	54175	2 0 .		
65	22.55	3110	2.04	54606	2 2 .		
58	25.45	3512	1.76	56306	2 5 .		
52	28.35	3911	1.59	57960	2 8 .		
46	31.89	4388	1.45	59094	3 2 .		
41	35.52	4869	1.3	61151	3 6 .		
38	39.01	5350	1.21	60291	4 0 .		
34	43.45	5940	1.09	63800	4 5 .		
37	39.93	5479	1.01	48800	M 1 3 3 1 4 0 . _ M _ _ _ 2 2 . A - -	441	180L
33	44.18	6031	1.02	48800	4 5 .		
29	50.02	6812	0.93	48800	5 0 .		
68	21.75	2999	3.53	73600	M 1 4 2 1 2 0 . _ M _ _ _ 2 2 . A - -	529	180L
61	23.97	3314	3.26	74382	2 2 .		
56	26.07	3571	2.94	75965	2 5 .		
52	28.25	3891	2.56	77807	2 8 .		
43	34.51	4758	2.25	78572	3 2 .		
39	37.39	5139	2.1	78450	3 6 .		
37	39.42	5406	1.84	80657	4 0 .		
34	42.71	5849	1.71	80900	4 5 .		
36	41.36	5636	1.73	66080	M 1 4 3 1 4 0 . _ M _ _ _ 2 2 . A - -	574	180L
30	48.21	6557	1.68	66080	4 5 .		
27	54.75	7436	1.48	66080	5 0 .		
25	59.46	8108	1.29	65884	5 6 .		
22	65.55	8930	1.2	65884	6 3 .		
19	78.7	10704	1.03	65600	7 1 .		
17	86.76	11758	0.94	80900	8 0 .		
16	94.35	12812	0.87	80900	9 0 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

22.0 kW

6 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
659	1.48	311	2.39	15213	M 0 9 2 1 1 . 4 _ M _ _ _ _ 2 2 . C - -	368	200L
479	2.04	430	2.39	16773	1 . 8		
427	2.28	483	2.25	17326	2 . 2		
381	2.56	542	2.01	17826	2 . 5		
328	2.97	623	2.39	18226	2 . 8		
295	3.3	698	1.56	18186	3 . 2		
264	3.69	781	1.39	18331	3 . 6		
239	4.09	857	2.11	18789	4 . 0		
213	4.58	966	1.97	19073	4 . 5		
192	5.07	1066	1.86	19415	5 . 0		
171	5.69	1193	1.73	19700	5 . 6		
147	6.63	1390	1.56	18826	6 . 3		
132	7.4	1554	1.45	18104	7 . 1		
119	8.22	1727	1.37	18117	8 . 0		
106	9.19	1929	1.27	17264	9 . 0		
95	10.27	2157	1.17	15308	1 0 .		
83	11.71	2454	1.08	13436	1 1 .		
77	12.74	2673	1.02	13634	1 2 .		
67	14.53	3051	0.94	12190	1 4 .		
676	1.44	301	2.39	20578	M 1 0 2 1 1 . 4 _ M _ _ _ _ 2 2 . C - -	414	200L
484	2.01	422	2.39	22847	1 . 8		
445	2.19	459	2.39	23420	2 . 2		
392	2.49	522	2.39	24373	2 . 5		
326	2.99	627	2.39	25626	2 . 8		
301	3.24	682	2.3	25633	3 . 2		
279	3.5	737	2.13	25833	3 . 6		
233	4.18	873	2.39	26586	4 . 0		
215	4.55	953	2.39	26786	4 . 5		
197	4.94	1032	2.39	27140	5 . 0		
182	5.37	1124	2.39	27493	5 . 6		
145	6.72	1409	2.39	28406	6 . 3		
134	7.26	1522	2.39	28660	7 . 1		
123	7.95	1662	2.26	29113	8 . 0		
114	8.58	1795	2.16	29420	9 . 0		
92	10.59	2219	1.7	30089	1 0 .		
81	11.98	2512	1.5	30457	1 1 .		
78	12.51	2618	1.68	30700	1 2 .		
69	14.16	2966	1.49	30068	1 4 .		
336	2.9	606	2.87	44375	M 1 3 2 1 2 . 8 _ M _ _ _ _ 2 2 . C - -	475	200L
306	3.19	666	2.87	44865	3 . 2		
268	3.64	760	2.87	45546	3 . 6		
242	4.03	844	2.87	46127	4 . 0		
221	4.42	927	2.87	46617	4 . 5		
193	5.04	1053	2.87	47389	5 . 0		
176	5.54	1158	2.87	48169	5 . 6		
157	6.21	1301	2.87	49031	6 . 3		
142	6.88	1444	2.87	49812	7 . 1		
125	7.78	1625	2.87	50854	8 . 0		
113	8.62	1799	2.87	51558	9 . 0		
99	9.89	2071	2.87	52476	1 0 .		
87	11.2	2352	2.53	53404	1 1 .		
79	12.39	2585	2.46	53867	1 2 .		
69	14.03	2930	2.15	54500	1 4 .		
61	15.97	3340	1.86	55592	1 6 .		
54	18	3761	1.65	56250	1 8 .		
49	20	4168	1.52	57575	2 0 .		
43	22.55	4694	1.35	58625	2 2 .		
38	25.45	5287	1.17	58564	2 5 .		
34	28.35	5890	1.05	59228	2 8 .		
31	31.89	6613	0.96	59030	3 2 .		
27	35.52	7355	0.86	60706	3 6 .		
25	39.01	8042	0.8	58551	4 0 .		
64	15.13	3159	3.29	74100	M 1 4 2 1 1 4 . _ M _ _ _ _ 2 2 . C - -	586	200L
59	16.43	3425	3.24	75400	1 6 .		
54	18.11	3774	2.94	77252	1 8 .		
45	21.75	4528	2.34	79634	2 0 .		
41	23.97	4998	2.16	78485	2 2 .		
37	26.07	5441	1.95	78835	2 5 .		
35	28.25	5874	1.7	77725	2 8 .		
28	34.51	7175	1.49	75975	3 2 .		
26	37.39	7746	1.39	75375	3 6 .		
25	39.42	8133	1.24	80706	4 0 .		
23	42.71	8821	1.14	80752	4 5 .		
24	41.36	8550	1.23	65304	M 1 4 3 1 4 0 . _ M _ _ _ _ 2 2 . C - -	631	200L
20	48.21	9887	1.11	65304	4 5 .		
18	54.75	11239	0.98	65304	5 0 .		
16	59.46	12205	0.91	80900	5 6 .		
15	65.55	13508	0.82	80900	6 3 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

30.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
994	1.48	281	2.64	13326	M 0 9 2 1 1 . 4 _ M _ _ _ _ 3 0 . A - -	368	200L
722	2.04	387	2.56	14700	1 . 8		
644	2.28	434	2.48	15200	2 . 2		
574	2.56	486	2.22	15700	2 . 5		
495	2.97	562	2.49	16600	2 . 8		
445	3.3	632	1.72	16900	3 . 2		
399	3.69	705	1.54	17450	3 . 6		
360	4.09	774	2.06	17850	4 . 0		
321	4.58	872	1.93	18100	4 . 5		
290	5.07	964	1.81	18300	5 . 0		
259	5.69	1077	1.69	18450	5 . 6		
222	6.63	1259	1.52	18450	6 . 3		
199	7.4	1405	1.42	18136	7 . 1		
179	8.22	1558	1.33	18263	8 . 0		
160	9.19	1744	1.24	17790	9 . 0		
143	10.27	1955	1.15	14859	1 0 .		
126	11.71	2226	1.05	15300	1 1 .		
115	12.74	2419	1	15300	1 2 .		
101	14.53	2762	0.92	13400	1 4 .		
1019	1.44	273	2.64	17995	M 1 0 2 1 1 . 4 _ M _ _ _ _ 3 0 . A - -	414	200L
730	2.01	382	2.64	19960	1 . 8		
671	2.19	416	2.64	20460	2 . 2		
591	2.49	473	2.64	21260	2 . 5		
491	2.99	563	2.64	22626	2 . 8		
453	3.24	615	2.49	23056	3 . 2		
420	3.5	666	2.34	23556	3 . 6		
352	4.18	790	2.64	25056	4 . 0		
323	4.55	862	2.64	25356	4 . 5		
298	4.94	934	2.64	25621	5 . 0		
274	5.37	1017	2.64	25886	5 . 6		
219	6.72	1274	2.46	26417	6 . 3		
202	7.26	1374	2.34	26649	7 . 1		
185	7.95	1504	2.21	27049	8 . 0		
171	8.58	1621	2.11	27400	9 . 0		
139	10.59	2009	1.83	28100	1 0 .		
123	11.98	2272	1.66	28550	1 1 .		
118	12.51	2368	1.64	28750	1 2 .		
104	14.16	2675	1.51	29227	1 4 .		
506	2.9	548	3.17	39200	M 1 3 2 1 2 . 8 _ M _ _ _ _ 3 0 . A - -	475	200L
461	3.19	602	3.17	40200	3 . 2		
404	3.64	684	3.17	41800	3 . 6		
365	4.03	763	3.17	43000	4 . 0		
333	4.42	839	3.17	44100	4 . 5		
292	5.04	952	3.17	44800	5 . 0		
265	5.54	1047	3.17	45300	5 . 6		
237	6.21	1176	3.17	45800	6 . 3		
214	6.88	1302	3.17	46300	7 . 1		
189	7.78	1470	3.17	47100	8 . 0		
171	8.62	1627	3.17	47800	9 . 0		
149	9.89	1873	3.17	48800	1 0 .		
131	11.2	2125	2.79	49517	1 1 .		
119	12.39	2340	2.71	50288	1 2 .		
105	14.03	2647	2.38	50461	1 4 .		
92	15.97	3017	2.05	51237	1 6 .		
82	18	3403	1.82	51562	1 8 .		
73	20	3765	1.69	51975	2 0 .		
65	22.55	4241	1.5	52132	2 2 .		
58	25.45	4790	1.29	53590	2 5 .		
52	28.35	5333	1.16	55208	2 8 .		
46	31.89	5984	1.06	56057	3 2 .		
41	35.52	6639	0.96	58200	3 6 .		
38	39.01	7296	0.89	56700	4 0 .		
97	15.13	2849	3.65	68600	M 1 4 2 1 1 4 . _ M _ _ _ _ 3 0 . A - -	586	200L
89	16.43	3096	3.21	69600	1 6 .		
81	18.11	3428	3	70600	1 8 .		
68	21.75	4089	2.59	71941	2 0 .		
61	23.97	4520	2.39	72513	2 2 .		
56	26.07	4870	2.16	73600	2 5 .		
52	28.25	5306	1.88	75987	2 8 .		
43	34.51	6488	1.65	75912	3 2 .		
39	37.39	7008	1.54	75650	3 6 .		
37	39.42	7372	1.35	80463	4 0 .		
34	42.71	7976	1.25	80900	4 5 .		
36	41.36	7685	1.27	65824	M 1 4 3 1 4 0 . _ M _ _ _ _ 3 0 . A - -	631	200L
30	48.21	8942	1.23	65824	4 5 .		
27	54.75	10140	1.08	65824	5 0 .		
25	59.46	11057	0.95	65600	5 6 .		
22	65.55	12178	0.88	65600	6 3 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

30.0 kW

6 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
663	1.48	422	1.76	15000	M 0 9 2 1 1 . 4 _ M _ _ _ _ 3 0 . C - -	462	225M
481	2.04	584	1.76	16400	1 . 8		
429	2.28	656	1.66	16900	2 . 2		
383	2.56	736	1.48	17400	2 . 5		
330	2.97	845	1.76	17800	2 . 8		
297	3.3	947	1.15	17600	3 . 2		
266	3.69	1060	1.03	17700	3 . 6		
240	4.09	1163	1.56	18200	4 . 0		
214	4.58	1310	1.45	18400	4 . 5		
193	5.07	1447	1.37	18700	5 . 0		
172	5.69	1618	1.27	18900	5 . 6		
148	6.63	1886	1.15	17100	6 . 3		
132	7.4	2108	1.07	15900	7 . 1		
119	8.22	2343	1.01	15700	8 . 0		
107	9.19	2618	0.94	14100	9 . 0		
95	10.27	2927	0.86	10900	1 0 .		
679	1.44	409	1.76	20300	M 1 0 2 1 1 . 4 _ M _ _ _ _ 3 0 . C - -	508	225M
486	2.01	573	1.76	22500	1 . 8		
447	2.19	624	1.76	23100	2 . 2		
394	2.49	709	1.76	24000	2 . 5		
328	2.99	850	1.76	25200	2 . 8		
302	3.24	926	1.69	25100	3 . 2		
280	3.5	1000	1.57	25300	3 . 6		
234	4.18	1185	1.76	26000	4 . 0		
216	4.55	1293	1.76	26200	4 . 5		
198	4.94	1401	1.76	26500	5 . 0		
182	5.37	1526	1.76	26800	5 . 6		
146	6.72	1911	1.76	27500	6 . 3		
135	7.26	2065	1.76	27700	7 . 1		
123	7.95	2255	1.67	28100	8 . 0		
114	8.58	2435	1.59	28300	9 . 0		
93	10.59	3010	1.25	28700	1 0 .		
82	11.98	3408	1.11	28900	1 1 .		
78	12.51	3552	1.24	29100	1 2 .		
69	14.16	4024	1.1	27500	1 4 .		
337	2.9	823	2.11	44090	M 1 3 2 1 2 . 8 _ M _ _ _ _ 3 0 . C - -	569	225M
307	3.19	903	2.11	44558	3 . 2		
269	3.64	1031	2.11	45195	3 . 6		
243	4.03	1145	2.11	45732	4 . 0		
222	4.42	1258	2.11	46201	4 . 5		
194	5.04	1429	2.11	46906	5 . 0		
177	5.54	1571	2.11	47643	5 . 6		
158	6.21	1765	2.11	48417	6 . 3		
142	6.88	1959	2.11	49154	7 . 1		
126	7.78	2205	2.11	50065	8 . 0		
114	8.62	2441	2.11	50550	9 . 0		
99	9.89	2811	2.11	51052	1 0 .		
88	11.2	3191	1.86	51584	1 1 .		
79	12.39	3507	1.81	51887	1 2 .		
70	14.03	3975	1.58	52100	1 4 .		
61	15.97	4532	1.37	52612	1 6 .		
54	18	5103	1.21	52868	1 8 .		
49	20	5654	1.12	53775	2 0 .		
43	22.55	6369	1	54134	2 2 .		
39	25.45	7173	0.86	54020	2 5 .		
339	2.89	817	3.08	56900	M 1 4 2 1 2 . 8 _ M _ _ _ _ 3 0 . C - -	681	225M
302	3.25	921	3.08	58400	3 . 2		
256	3.82	1080	3.08	59600	3 . 6		
243	4.03	1145	3.08	60000	4 . 0		
216	4.54	1287	3.08	60800	4 . 5		
184	5.33	1511	3.08	62000	5 . 0		
163	6	1699	3.08	63200	5 . 6		
150	6.55	1858	3.08	64200	6 . 3		
135	7.27	2062	3.08	65300	7 . 1		
113	8.67	2455	3.08	67100	8 . 0		
102	9.62	2724	3.08	68200	9 . 0		
97	10.06	2857	3.08	68700	1 0 .		
86	11.43	3240	3.08	70100	1 1 .		
74	13.32	3756	2.72	71600	1 2 .		
65	15.13	4286	2.43	72621	1 4 .		
60	16.43	4646	2.39	74066	1 6 .		
54	18.11	5120	2.17	75542	1 8 .		
45	21.75	6144	1.73	76741	2 0 .		
41	23.97	6781	1.59	75725	2 2 .		
38	26.07	7381	1.44	76475	2 5 .		
35	28.25	7969	1.25	75415	2 8 .		
28	34.51	9735	1.1	72393	3 2 .		
26	37.39	10509	1.03	71356	3 6 .		
25	39.42	11034	0.92	80600	4 0 .		
23	42.71	11968	0.84	80671	4 5 .		
24	41.36	11600	0.91	64700	M 1 4 3 1 4 0 . _ M _ _ _ _ 3 0 . C - -	726	225M
20	48.21	13413	0.82	64700	4 5 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

37.0 kW

4 POLE

NOTE

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

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
997	1.48	345	2.15	13220	M 0 9 2 1 1 . 4 _ M _ _ _ _ 3 7 . A - -	427	225S
724	2.04	476	2.09	14560	1 . 8		
646	2.28	534	2.02	15013	2 . 2		
576	2.56	597	1.81	15513	2 . 5		
497	2.97	690	2.03	16413	2 . 8		
447	3.3	777	1.4	16666	3 . 2		
400	3.69	867	1.26	17193	3 . 6		
361	4.09	952	1.68	17593	4 . 0		
322	4.58	1072	1.57	17820	4 . 5		
291	5.07	1185	1.48	18020	5 . 0		
259	5.69	1323	1.37	18100	5 . 6		
223	6.63	1548	1.24	17960	6 . 3		
199	7.4	1727	1.16	17372	7 . 1		
179	8.22	1915	1.09	17393	8 . 0		
161	9.19	2144	1.01	16581	9 . 0		
144	10.27	2403	0.93	12700	1 0 .		
1023	1.44	335	2.15	17904	M 1 0 2 1 1 . 4 _ M _ _ _ _ 3 7 . A - -	473	225S
732	2.01	469	2.15	19839	1 . 8		
673	2.19	511	2.15	20339	2 . 2		
593	2.49	581	2.15	21139	2 . 5		
493	2.99	693	2.15	22473	2 . 8		
455	3.24	756	2.02	22843	3 . 2		
421	3.5	818	1.91	23343	3 . 6		
353	4.18	972	2.15	24843	4 . 0		
325	4.55	1060	2.15	25143	4 . 5		
299	4.94	1148	2.15	25378	5 . 0		
275	5.37	1251	2.15	25613	5 . 6		
219	6.72	1566	2	26082	6 . 3		
203	7.26	1690	1.91	26252	7 . 1		
186	7.95	1849	1.8	26652	8 . 0		
172	8.58	1993	1.72	26933	9 . 0		
139	10.59	2469	1.49	27493	1 0 .		
123	11.98	2792	1.35	27873	1 1 .		
118	12.51	2911	1.34	28073	1 2 .		
104	14.16	3288	1.23	28421	1 4 .		
508	2.9	674	2.58	39071	M 1 3 2 1 2 . 8 _ M _ _ _ _ 3 7 . A - -	534	225S
463	3.19	740	2.58	40071	3 . 2		
405	3.64	841	2.58	41648	3 . 6		
366	4.03	938	2.58	42825	4 . 0		
334	4.42	1031	2.58	43913	4 . 5		
293	5.04	1171	2.58	44590	5 . 0		
266	5.54	1287	2.58	45066	5 . 6		
238	6.21	1446	2.58	45543	6 . 3		
214	6.88	1601	2.58	46020	7 . 1		
190	7.78	1807	2.58	46773	8 . 0		
171	8.62	2000	2.58	47368	9 . 0		
149	9.89	2303	2.58	48181	1 0 .		
132	11.2	2612	2.27	48745	1 1 .		
119	12.39	2876	2.21	49402	1 2 .		
105	14.03	3254	1.93	49098	1 4 .		
92	15.97	3709	1.67	49855	1 6 .		
82	18	4183	1.48	49865	1 8 .		
74	20	4628	1.37	50050	2 0 .		
65	22.55	5213	1.22	49967	2 2 .		
58	25.45	5888	1.05	51215	2 5 .		
52	28.35	6555	0.95	52800	2 8 .		
46	31.89	7355	0.86	53400	3 2 .		
511	2.89	669	3.77	50300	M 1 4 2 1 2 . 8 _ M _ _ _ _ 3 7 . A - -	646	225S
454	3.25	754	3.77	52100	3 . 2		
386	3.82	884	3.77	54600	3 . 6		
366	4.03	937	3.77	55400	4 . 0		
325	4.54	1054	3.77	57400	4 . 5		
277	5.33	1237	3.77	58800	5 . 0		
246	6	1391	3.77	59600	5 . 6		
225	6.55	1521	3.77	60200	6 . 3		
203	7.27	1688	3.77	60900	7 . 1		
170	8.67	2009	3.77	62400	8 . 0		
153	9.62	2230	3.77	63400	9 . 0		
147	10.06	2336	3.77	63900	1 0 .		
129	11.43	2662	3.44	65200	1 1 .		
111	13.32	3066	3.33	66700	1 2 .		
98	15.13	3502	2.97	67981	1 4 .		
90	16.43	3805	2.61	68981	1 6 .		
81	18.11	4214	2.44	69783	1 8 .		
68	21.75	5026	2.11	70489	2 0 .		
62	23.97	5556	1.94	70879	2 2 .		
57	26.07	5986	1.75	71531	2 5 .		
52	28.25	6522	1.53	74395	2 8 .		
43	34.51	7975	1.34	73585	3 2 .		
39	37.39	8614	1.25	73200	3 6 .		
37	39.42	9061	1.1	80293	4 0 .		
35	42.71	9804	1.02	80900	4 5 .		
36	41.36	9447	1.03	65600	M 1 4 3 1 4 0 . _ M _ _ _ _ 3 7 . A - -	691	225S
31	48.21	10991	1	65600	4 5 .		
27	54.75	12464	0.88	65600	5 0 .		

SERIES M

SELECTION TABLES

GEARED MOTORS

37.0 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
337	2.9	1015	1.71	43841	M 1 3 2 1 2 . 8 _ M _ _ _ 3 7 . C - -	646	250M
307	3.19	1114	1.71	44290	3 . 2		
269	3.64	1272	1.71	44889	3 . 6		
243	4.03	1412	1.71	45387	4 . 0		
222	4.42	1552	1.71	45836	4 . 5		
194	5.04	1762	1.71	46484	5 . 0		
177	5.54	1937	1.71	47183	5 . 6		
158	6.21	2177	1.71	47880	6 . 3		
142	6.88	2416	1.71	48579	7 . 1		
126	7.78	2719	1.71	49375	8 . 0		
114	8.62	3011	1.71	49668	9 . 0		
99	9.89	3466	1.71	49805	1 0 .		
88	11.2	3935	1.51	49993	1 1 .		
79	12.39	4326	1.47	50155	1 2 .		
70	14.03	4902	1.28	50000	1 4 .		
61	15.97	5590	1.11	50005	1 6 .		
54	18	6294	0.98	49909	1 8 .		
49	20	6974	0.91	50450	2 0 .		
43	22.55	7855	0.81	50204	2 2 .		
339	2.89	1008	2.5	56704	M 1 4 2 1 2 . 8 _ M _ _ _ 3 7 . C - -	761	250M
302	3.25	1136	2.5	58176	3 . 2		
256	3.82	1332	2.5	59320	3 . 6		
243	4.03	1412	2.5	59720	4 . 0		
216	4.54	1588	2.5	60492	4 . 5		
184	5.33	1864	2.5	61608	5 . 0		
163	6	2096	2.5	62780	5 . 6		
150	6.55	2292	2.5	63724	6 . 3		
135	7.27	2544	2.5	64768	7 . 1		
113	8.67	3028	2.5	66456	8 . 0		
102	9.62	3360	2.5	67500	9 . 0		
97	10.06	3524	2.5	68000	1 0 .		
86	11.43	3996	2.5	69288	1 1 .		
74	13.32	4632	2.2	70620	1 2 .		
65	15.13	5286	1.97	71327	1 4 .		
60	16.43	5731	1.94	72900	1 6 .		
54	18.11	6315	1.76	74046	1 8 .		
45	21.75	7577	1.4	74209	2 0 .		
41	23.97	8364	1.29	73310	2 2 .		
38	26.07	9104	1.16	74410	2 5 .		
35	28.25	9829	1.02	73395	2 8 .		
28	34.51	12006	0.89	69259	3 2 .		
26	37.39	12961	0.83	67840	3 6 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

45.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
997	1.48	420	1.77	13100	M 0 9 2 1 1 . 4 _ M _ _ _ _ 4 5 . A - -	462	225M
724	2.04	579	1.72	14400	1 . 8		
646	2.28	650	1.66	14800	2 . 2		
576	2.56	727	1.49	15300	2 . 5		
497	2.97	840	1.67	16200	2 . 8		
447	3.3	945	1.15	16400	3 . 2		
400	3.69	1055	1.03	16900	3 . 6		
361	4.09	1158	1.38	17300	4 . 0		
322	4.58	1303	1.29	17500	4 . 5		
291	5.07	1441	1.21	17700	5 . 0		
259	5.69	1610	1.13	17700	5 . 6		
223	6.63	1883	1.02	17400	6 . 3		
199	7.4	2101	0.95	16500	7 . 1		
179	8.22	2329	0.89	16400	8 . 0		
161	9.19	2608	0.83	15200	9 . 0		
1023	1.44	408	1.77	17800	M 1 0 2 1 1 . 4 _ M _ _ _ _ 4 5 . A - -	508	225M
732	2.01	571	1.77	19700	1 . 8		
673	2.19	622	1.77	20200	2 . 2		
593	2.49	707	1.77	21000	2 . 5		
493	2.99	842	1.77	22300	2 . 8		
455	3.24	919	1.66	22600	3 . 2		
421	3.5	995	1.57	23100	3 . 6		
353	4.18	1182	1.77	24600	4 . 0		
325	4.55	1289	1.77	24900	4 . 5		
299	4.94	1397	1.77	25100	5 . 0		
275	5.37	1521	1.77	25300	5 . 6		
219	6.72	1905	1.65	25700	6 . 3		
203	7.26	2055	1.57	25800	7 . 1		
186	7.95	2249	1.48	26200	8 . 0		
172	8.58	2424	1.41	26400	9 . 0		
139	10.59	3003	1.23	26800	1 0 .		
123	11.98	3396	1.11	27100	1 1 .		
118	12.51	3540	1.1	27300	1 2 .		
104	14.16	3999	1.01	27500	1 4 .		
90	16.43	4645	0.81	24900	1 6 .		
508	2.9	820	2.12	38925	M 1 3 2 1 2 . 8 _ M _ _ _ _ 4 5 . A - -	569	225M
463	3.19	900	2.12	39925	3 . 2		
405	3.64	1023	2.12	41475	3 . 6		
366	4.03	1141	2.12	42625	4 . 0		
334	4.42	1254	2.12	43700	4 . 5		
293	5.04	1424	2.12	44350	5 . 0		
266	5.54	1565	2.12	44800	5 . 6		
238	6.21	1759	2.12	45250	6 . 3		
214	6.88	1947	2.12	45700	7 . 1		
190	7.78	2197	2.12	46400	8 . 0		
171	8.62	2433	2.12	46875	9 . 0		
149	9.89	2801	2.12	47475	1 0 .		
132	11.2	3177	1.87	47863	1 1 .		
119	12.39	3498	1.82	48391	1 2 .		
105	14.03	3958	1.59	47540	1 4 .		
92	15.97	4511	1.37	48275	1 6 .		
82	18	5088	1.22	47925	1 8 .		
74	20	5629	1.13	47850	2 0 .		
65	22.55	6341	1	47493	2 2 .		
58	25.45	7161	0.87	48500	2 5 .		
511	2.89	813	3.1	50194	M 1 4 2 1 2 . 8 _ M _ _ _ _ 4 5 . A - -	681	225M
454	3.25	917	3.1	51979	3 . 2		
386	3.82	1075	3.1	54449	3 . 6		
366	4.03	1139	3.1	55249	4 . 0		
325	4.54	1281	3.1	57218	4 . 5		
277	5.33	1504	3.1	58588	5 . 0		
246	6	1691	3.1	59358	5 . 6		
225	6.55	1850	3.1	59943	6 . 3		
203	7.27	2053	3.1	60628	7 . 1		
170	8.67	2444	3.1	62052	8 . 0		
153	9.62	2712	3.1	63022	9 . 0		
147	10.06	2841	3.1	63507	1 0 .		
129	11.43	3238	2.83	64762	1 1 .		
111	13.32	3729	2.74	66171	1 2 .		
98	15.13	4259	2.44	67275	1 4 .		
90	16.43	4628	2.15	68275	1 6 .		
81	18.11	5125	2.01	68850	1 8 .		
68	21.75	6113	1.73	68830	2 0 .		
62	23.97	6757	1.6	69010	2 2 .		
57	26.07	7280	1.44	69167	2 5 .		
52	28.25	7932	1.26	72575	2 8 .		
43	34.51	9699	1.1	70925	3 2 .		
39	37.39	10477	1.03	70400	3 6 .		
37	39.42	11020	0.9	80100	4 0 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

45.0 kW

6 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
337	2.9	1235	1.41	43556	M 1 3 2 1 2 . 8 _ M _ _ _ _ 4 5 . C - -	771	280S
307	3.19	1355	1.41	43983	3 . 2		
269	3.64	1547	1.41	44538	3 . 6		
243	4.03	1717	1.41	44993	4 . 0		
222	4.42	1888	1.41	45420	4 . 5		
194	5.04	2143	1.41	46002	5 . 0		
177	5.54	2356	1.41	46657	5 . 6		
158	6.21	2647	1.41	47267	6 . 3		
142	6.88	2938	1.41	47921	7 . 1		
126	7.78	3307	1.41	48586	8 . 0		
114	8.62	3662	1.41	48660	9 . 0		
99	9.89	4216	1.41	48380	1 0 .		
88	11.2	4786	1.24	48173	1 1 .		
79	12.39	5261	1.21	48175	1 2 .		
70	14.03	5962	1.05	47600	1 4 .		
61	15.97	6798	0.91	47025	1 6 .		
54	18	7655	0.81	46527	1 8 .		
339	2.89	1226	2.06	56480	M 1 4 2 1 2 . 8 _ M _ _ _ _ 4 5 . C - -	886	280S
302	3.25	1381	2.06	57920	3 . 2		
256	3.82	1620	2.06	59000	3 . 6		
243	4.03	1717	2.06	59400	4 . 0		
216	4.54	1931	2.06	60140	4 . 5		
184	5.33	2267	2.06	61160	5 . 0		
163	6	2549	2.06	62300	5 . 6		
150	6.55	2787	2.06	63180	6 . 3		
135	7.27	3094	2.06	64160	7 . 1		
113	8.67	3683	2.06	65720	8 . 0		
102	9.62	4087	2.06	66700	9 . 0		
97	10.06	4286	2.06	67200	1 0 .		
86	11.43	4860	2.06	68360	1 1 .		
74	13.32	5634	1.81	69500	1 2 .		
65	15.13	6429	1.62	69848	1 4 .		
60	16.43	6970	1.59	71566	1 6 .		
54	18.11	7681	1.45	72336	1 8 .		
45	21.75	9216	1.15	71316	2 0 .		
41	23.97	10172	1.06	70550	2 2 .		
38	26.07	11072	0.96	72050	2 5 .		
35	28.25	11954	0.83	71086	2 8 .		

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

55.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
508	2.9	1002	1.73	38741	M 1 3 2 1 2 . 8 _ M _ _ _ _ 5 5 . A - -	646	250M
463	3.19	1100	1.73	39741			
405	3.64	1250	1.73	41258			
366	4.03	1394	1.73	42375			
334	4.42	1533	1.73	43433			
293	5.04	1740	1.73	44050			
266	5.54	1913	1.73	44466			
238	6.21	2150	1.73	44883			
214	6.88	2380	1.73	45300			
190	7.78	2686	1.73	45933			
171	8.62	2974	1.73	46258			
149	9.89	3423	1.73	46591			
132	11.2	3883	1.53	46760			
119	12.39	4275	1.49	47126			
105	14.03	4837	1.3	45593			
92	15.97	5513	1.12	46300			
82	18	6219	1	45500			
74	20	6880	0.92	45100			
65	22.55	7750	0.82	44400			
511	2.89	994	2.53	50062	M 1 4 2 1 2 . 8 _ M _ _ _ _ 5 5 . A - -	761	250M
454	3.25	1120	2.53	51828			
386	3.82	1314	2.53	54260			
366	4.03	1393	2.53	55060			
325	4.54	1566	2.53	56992			
277	5.33	1839	2.53	58324			
246	6	2067	2.53	59056			
225	6.55	2261	2.53	59622			
203	7.27	2510	2.53	60288			
170	8.67	2987	2.53	61618			
153	9.62	3315	2.53	62550			
147	10.06	3472	2.53	63016			
129	11.43	3957	2.31	64215			
111	13.32	4557	2.24	65511			
98	15.13	5206	2	66391			
90	16.43	5657	1.76	67391			
81	18.11	6264	1.64	67683			
68	21.75	7472	1.42	66757			
62	23.97	8259	1.31	66674			
57	26.07	8898	1.18	66211			
52	28.25	9695	1.03	70300			
43	34.51	11855	0.9	67600			
39	37.39	12805	0.84	66900			

55.0 kW

6 POLE

337	2.9	1509	1.15	43200	M 1 3 2 1 2 . 8 _ M _ _ _ _ 5 5 . C - -	861	280M
307	3.19	1657	1.15	43600			
269	3.64	1891	1.15	44100			
243	4.03	2099	1.15	44500			
222	4.42	2307	1.15	44900			
194	5.04	2620	1.15	45400			
177	5.54	2880	1.15	46000			
158	6.21	3236	1.15	46500			
142	6.88	3591	1.15	47100			
126	7.78	4042	1.15	47600			
114	8.62	4476	1.15	47400			
99	9.89	5153	1.15	46600			
88	11.2	5850	1.02	45900			
79	12.39	6430	0.99	45700			
70	14.03	7287	0.86	44600			
339	2.89	1498	1.68	56200	M 1 4 2 1 2 . 8 _ M _ _ _ _ 5 5 . C - -	976	280M
302	3.25	1688	1.68	57600			
256	3.82	1980	1.68	58600			
243	4.03	2099	1.68	59000			
216	4.54	2360	1.68	59700			
184	5.33	2771	1.68	60600			
163	6	3116	1.68	61700			
150	6.55	3407	1.68	62500			
135	7.27	3782	1.68	63400			
113	8.67	4501	1.68	64800			
102	9.62	4995	1.68	65700			
97	10.06	5239	1.68	66200			
86	11.43	5940	1.68	67200			
74	13.32	6886	1.48	68100			
65	15.13	7858	1.32	68000			
60	16.43	8519	1.3	69900			
54	18.11	9388	1.18	70200			
45	21.75	11264	0.94	67700			
41	23.97	12433	0.87	67100			

NOTE

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

SERIES M

SELECTION TABLES

GEARED MOTORS

75.0 kW

4 POLE

N2 R/MIN	i	M2 Nm	Fm	N	Unit Designation	Kg	
Output Speed	Ratio	Output Torque	Service Factor	Overhung Load	Column Entry 1 Through 20 Spaces to be filled when entering order	Weight	Motor Size
511	2.9	1358	1.28	38375	M 1 3 2 1 2 . 8 _ M _ _ _ _ 7 5 . A - -	771	280S
466	3.19	1491	1.28	39375	3 . 2		
408	3.64	1694	1.28	40825	3 . 6		
369	4.03	1889	1.28	41875	4 . 0		
336	4.42	2076	1.28	42900	4 . 5		
295	5.04	2357	1.28	43450	5 . 0		
268	5.54	2592	1.28	43800	5 . 6		
239	6.21	2912	1.28	44150	6 . 3		
216	6.88	3224	1.28	44500	7 . 1		
191	7.78	3638	1.28	45000	8 . 0		
172	8.62	4028	1.28	45025	9 . 0		
150	9.89	4637	1.28	44825	1 0 .		
133	11.2	5259	1.13	44554	1 1 .		
120	12.39	5791	1.1	44597	1 2 .		
106	14.03	6552	0.96	41700	1 4 .		
514	2.89	1347	1.87	49798	M 1 4 2 1 2 . 8 _ M _ _ _ _ 7 5 . A - -	886	280S
457	3.25	1518	1.87	51526	3 . 2		
389	3.82	1780	1.87	53883	3 . 6		
369	4.03	1886	1.87	54683	4 . 0		
327	4.54	2122	1.87	56539	4 . 5		
278	5.33	2490	1.87	57796	5 . 0		
247	6	2801	1.87	58452	5 . 6		
227	6.55	3062	1.87	58981	6 . 3		
204	7.27	3399	1.87	59609	7 . 1		
171	8.67	4046	1.87	60750	8 . 0		
154	9.62	4490	1.87	61607	9 . 0		
148	10.06	4703	1.87	62035	1 0 .		
130	11.43	5360	1.71	63120	1 1 .		
111	13.32	6173	1.65	64190	1 2 .		
98	15.13	7052	1.47	64625	1 4 .		
90	16.43	7662	1.3	65625	1 6 .		
82	18.11	8484	1.21	65350	1 8 .		
68	21.75	10120	1.05	62610	2 0 .		
62	23.97	11186	0.97	62003	2 2 .		
57	26.07	12052	0.87	60300	2 5 .		

90.0 kW

4 POLE

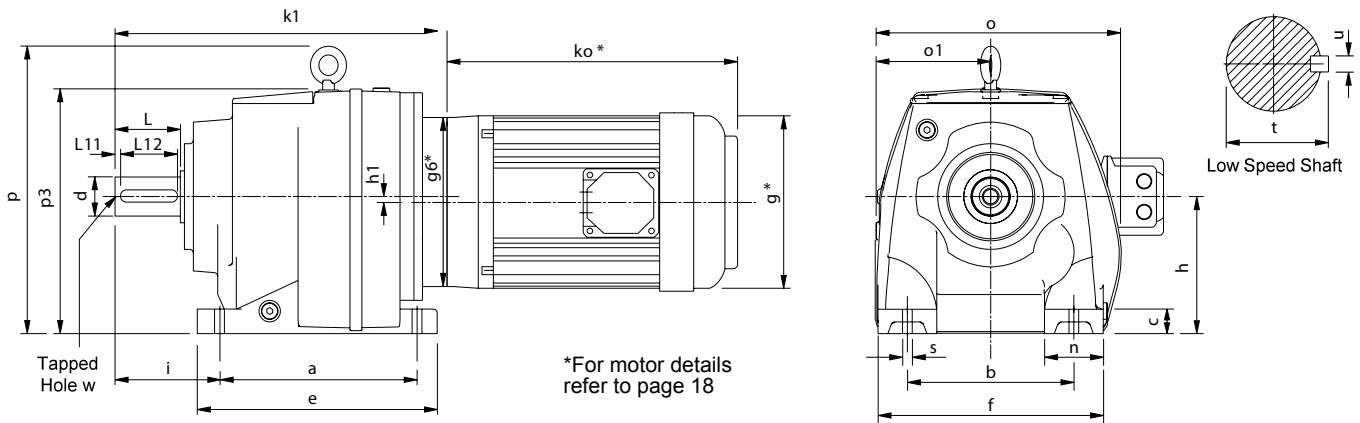
511	2.9	1630	1.07	38100	M 1 3 2 1 2 . 8 _ M _ _ _ _ 9 0 . A - -	861	280M
466	3.19	1789	1.07	39100	3 . 2		
408	3.64	2033	1.07	40500	3 . 6		
369	4.03	2267	1.07	41500	4 . 0		
336	4.42	2492	1.07	42500	4 . 5		
295	5.04	2829	1.07	43000	5 . 0		
268	5.54	3110	1.07	43300	5 . 6		
239	6.21	3494	1.07	43600	6 . 3		
216	6.88	3869	1.07	43900	7 . 1		
191	7.78	4365	1.07	44300	8 . 0		
172	8.62	4834	1.07	44100	9 . 0		
150	9.89	5565	1.07	43500	1 0 .		
133	11.2	6311	0.94	42900	1 1 .		
120	12.39	6949	0.91	42700	1 2 .		
514	2.89	1616	1.56	49600	M 1 4 2 1 2 . 8 _ M _ _ _ _ 9 0 . A - -	976	280M
457	3.25	1821	1.56	51300	3 . 2		
389	3.82	2136	1.56	53600	3 . 6		
369	4.03	2264	1.56	54400	4 . 0		
327	4.54	2546	1.56	56200	4 . 5		
278	5.33	2989	1.56	57400	5 . 0		
247	6	3361	1.56	58000	5 . 6		
227	6.55	3675	1.56	58500	6 . 3		
204	7.27	4079	1.56	59100	7 . 1		
171	8.67	4855	1.56	60100	8 . 0		
154	9.62	5388	1.56	60900	9 . 0		
148	10.06	5644	1.56	61300	1 0 .		
130	11.43	6432	1.42	62300	1 1 .		
111	13.32	7407	1.38	63200	1 2 .		
98	15.13	8462	1.23	63300	1 4 .		
90	16.43	9195	1.08	64300	1 6 .		
82	18.11	10181	1.01	63600	1 8 .		
68	21.75	12144	0.87	59500	2 0 .		
62	23.97	13424	0.8	58500	2 2 .		

NOTE

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

SERIES M

DIMENSIONS - DOUBLE REDUCTION BASE MOUNT



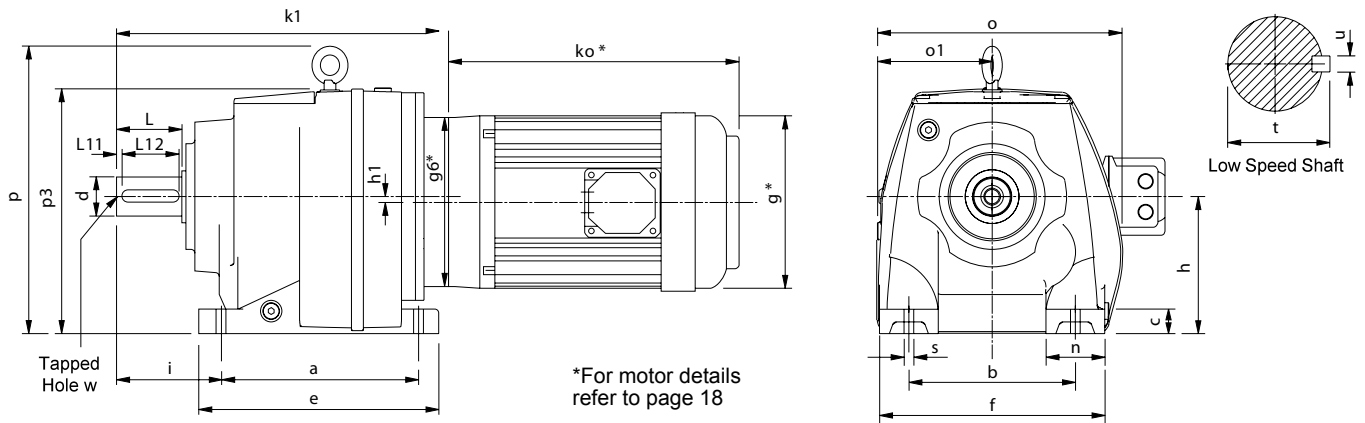
all parallel keys are to DIN 6885

Size	a	b	c	e	f	h	h1	i	n	o	o1	p	p3	s	Low Speed Shaft						
															d	L	L11	L12	t	u	w
M0122	110	110	12	131	135	75	-	58	25	152	76	-	149	10	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
M0222	130	110	16	152	145	90	-	75	35	170	84	-	180	10	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0322	130	110	16	152	145	90	-	75	35	170	84	-	180	10	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0422	165	135	20	200	190	115	-	90	55	204	97	-	208	15	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0522	165	135	20	200	190	115	-	100	55	204	97	-	208	15	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0622	195	150	24	235	210	130	14.5	100	60	220	110	246	214	15	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0722	205	170	25	245	230	140	-	115	60	252	119	295	250	19	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0822	260	215	35	310	290	180	-	140	75	320	167	360	310	19	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0921	310	250	40	365	340	225	-	160	90	372	200	433	394	23	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1021	370	290	45	440	400	250	-	185	110	428	225	505	446	27	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1321	410	340	50	490	450	265	-	220	110	470	242	563	483	34	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1421	500	380	50	590	530	300	-	260	150	546	278	630	551	41	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

MOTOR FRAME SIZE	M0122	M0222	M0322	M0422	M0522	M0622	M0722	M0822	M0921	M1021	M1321	M1421
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	209	240	240	270	280	301	-	-	-	-	-	-
71	213	244	244	276	286	307	-	-	-	-	-	-
80	226	257	257	294	304	325	362	477	523	-	-	-
90	236	267	267	304	314	335	372	477	523	-	-	-
100	244	275	275	331	341	362	384	483	529	596	717	832
112	244	275	275	331	341	362	384	483	529	596	717	832
132	-	-	-	331	341	362	406	483	564	596	717	832
160	-	-	-	-	-	-	414	513	564	631	710	825
180	-	-	-	-	-	-	-	-	564	564	710	825
200	-	-	-	-	-	-	-	-	564	564	710	825
225	-	-	-	-	-	-	-	-	591	591	737	852
250	-	-	-	-	-	-	-	-	-	-	909	1024
280	-	-	-	-	-	-	-	-	-	-	909	1024

SERIES M

DIMENSIONS - TRIPLE REDUCTION BASE MOUNT



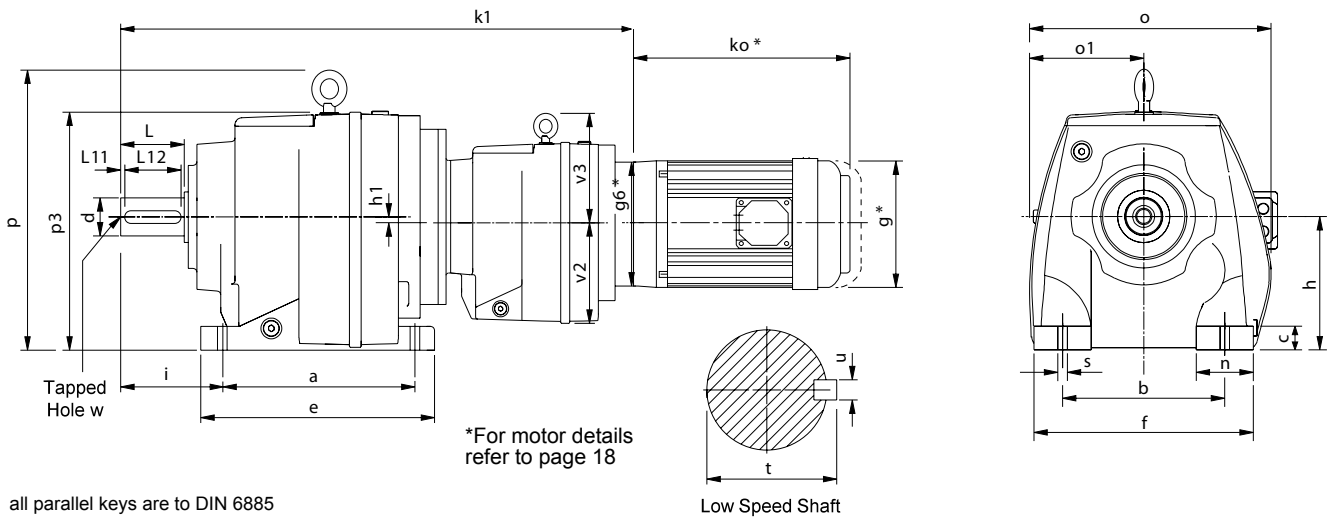
all parallel keys are to DIN 6885

Size	a	b	c	e	f	h	h1	i	n	o	o1	p	p3	s	Low Speed Shaft						
															d	L	L11	L12	t	u	w
M0132	110	110	12	131	135	75	-	58	25	152	76	-	149	10	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
M0232	130	110	16	152	145	90	-	75	35	170	84	-	180	10	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0332	130	110	16	152	145	90	-	75	35	170	84	-	180	10	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0432	165	135	20	200	190	115	-	90	55	204	97	-	208	15	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0532	165	135	20	200	190	115	-	100	55	204	97	-	208	15	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0632	195	150	24	235	210	130	14.5	100	60	220	110	246	214	15	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0732	205	170	25	245	230	140	-	115	60	252	119	295	250	19	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0832	260	215	35	310	290	180	-	140	75	320	167	360	310	19	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0931	310	250	40	365	340	225	-	160	90	372	200	433	394	23	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1031	370	290	45	440	400	250	-	185	110	428	225	505	446	27	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1331	410	340	50	490	450	265	-	220	110	470	242	563	483	34	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1431	500	380	50	590	530	300	-	260	150	546	278	630	551	41	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

MOTOR FRAME SIZE	M0132	M0232	M0332	M0432	M0532	M0632	M0732	M0832	M0931	M1031	M1331	M1431
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	224	253	253	300	310	331	353	-	-	-	-	-
71	228	257	257	304	314	335	359	-	-	-	-	-
80	241	270	270	317	327	348	377	462	549	647	-	-
90	251	280	280	327	337	358	387	472	549	647	-	-
100	259	288	288	335	345	366	414	484	555	653	779	904
112	259	288	288	335	345	366	414	484	555	653	779	904
132	-	-	-	-	-	-	414	506	-	653	779	904
160	-	-	-	-	-	-	-	-	-	688	772	897
180	-	-	-	-	-	-	-	-	-	688	772	897
200	-	-	-	-	-	-	-	-	-	688	772	897
225	-	-	-	-	-	-	-	-	-	715	799	924
250	-	-	-	-	-	-	-	-	-	-	971	1096
280	-	-	-	-	-	-	-	-	-	-	971	1096

SERIES M

DIMENSIONS - QUADRUPLE REDUCTION BASE MOUNT



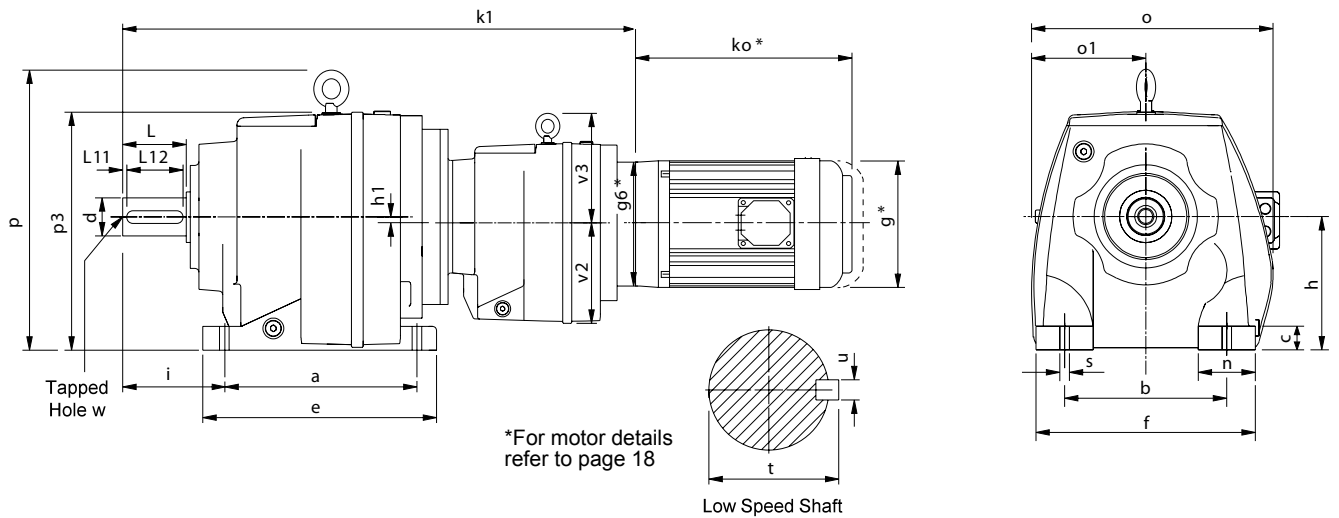
all parallel keys are to DIN 6885

Size	a	b	c	e	f	h	h1	i	n	o	o1	p	p3	s	v2	v3	Low Speed Shaft						
																	d	L	L11	L12	t	u	w
M0342	130	110	16	152	145	90	-	75	35	170	84	-	180	10	76	-	25	50	4	40	28	8	M10 x 1.5 22 deep
M0442	165	135	20	200	190	115	-	90	55	204	97	-	208	15	91	-	30	60	4	50	33	8	M10 x 1.5 22 deep
M0542	165	135	20	200	190	115	-	100	55	204	97	-	208	15	91	-	35	70	7	60	38	10	M12 x 1.75 28 deep
M0642	195	150	24	235	210	130	14.5	100	60	220	110	246	214	15	91	-	35	70	7	60	38	10	M12 x 1.75 28 deep
M0742	205	170	25	245	230	140	-	115	60	252	119	295	250	19	91	-	40	80	5	70	43	12	M16 x 2.0 36 deep
M0842	260	215	35	310	290	180	-	140	75	320	167	360	310	19	115	-	50	100	10	80	53.5	14	M16 x 2.0 36 deep
M0941	310	250	40	365	340	225	-	160	90	372	200	433	394	23	115	-	60	120	10	100	64	18	M20 x 2.5 42 deep
M1041	370	290	45	440	400	250	-	185	110	428	225	505	446	27	140	155	70	140	15	110	74.5	20	M20 x 2.5 42 deep
M1341	410	340	50	490	450	265	-	220	110	470	242	563	483	34	140	155	90	170	15	140	95	25	M24 x 3.0 50 deep
M1441	500	380	50	590	530	300	-	260	150	546	278	630	551	41	140	155	100	210	15	180	106	28	M24 x 3.0 50 deep

MOTOR FRAME SIZE	M0342	M0442	M0542	M0642	M0742	M0842	M0941	M1041	M1341	M1441
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	426	494	504	525	562	652	733	-	-	-
71	430	498	508	529	566	658	739	-	-	-
80	443	511	521	542	579	676	757	878	999	1114
90	453	521	531	552	589	686	767	888	1009	1124
100	-	-	-	-	-	713	794	900	1021	1136
112	-	-	-	-	-	713	794	900	1021	1136
132	-	-	-	-	-	713	794	922	1043	1158
160	-	-	-	-	-	-	-	930	1051	1166

SERIES M

DIMENSIONS - QUINTUPLE REDUCTION BASE MOUNT



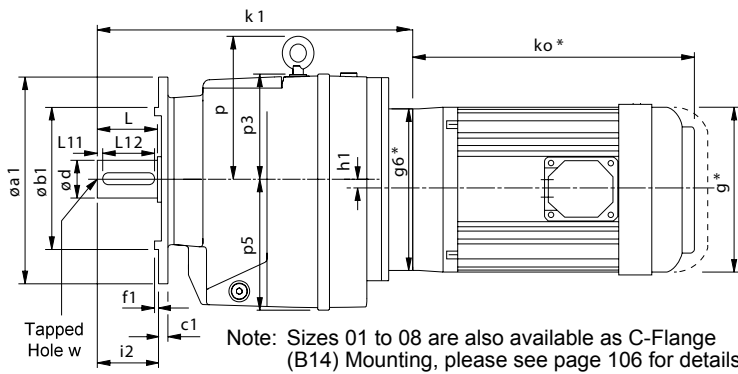
all parallel keys are to DIN 6885

Size	a	b	c	e	f	h	h1	i	n	o	o1	p	p3	s	v2	v3	Low Speed Shaft						
																	d	L	L11	L12	t	u	w
M0352	130	110	16	152	145	90	-	75	35	170	84	-	180	10	76	-	25	50	4	40	28	8	M10 x 1.5 22 deep
M0452	165	135	20	200	190	115	-	90	55	204	97	-	208	15	91	-	30	60	4	50	33	8	M10 x 1.5 22 deep
M0552	165	135	20	200	190	115	-	100	55	204	97	-	208	15	91	-	35	70	7	60	38	10	M12 x 1.75 28 deep
M0652	195	150	24	235	210	130	14.5	100	60	220	110	246	214	15	91	-	35	70	7	60	38	10	M12 x 1.75 28 deep
M0752	205	170	25	245	230	140	-	115	60	252	119	295	250	19	91	-	40	80	5	70	43	12	M16 x 2.0 36 deep
M0852	260	215	35	310	290	180	-	140	75	320	167	360	310	19	115	-	50	100	10	80	53.5	14	M16 x 2.0 36 deep
M0951	310	250	40	365	340	225	-	160	90	372	200	433	394	23	115	-	60	120	10	100	64	18	M20 x 2.5 42 deep
M1051	370	290	45	440	400	250	-	185	110	428	225	505	446	27	140	155	70	140	15	110	74.5	20	M20 x 2.5 42 deep
M1351	410	340	50	490	450	265	-	220	110	470	242	563	483	34	140	155	90	170	15	140	95	25	M24 x 3.0 50 deep
M1451	500	380	50	590	530	300	-	260	150	546	278	630	551	41	140	155	100	210	15	180	106	28	M24 x 3.0 50 deep

MOTOR FRAME SIZE	M0352	M0452	M0552	M0652	M0752	M0852	M0951	M1051	M1351	M1451
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	441	507	517	538	575	682	763	869	990	1105
71	445	511	521	542	579	686	767	875	996	1111
80	458	524	534	555	592	699	780	893	1014	1129
90	468	534	544	565	602	709	790	903	1024	1139
100	-	-	-	-	-	-	-	930	1051	1166
112	-	-	-	-	-	-	-	930	1051	1166

SERIES M

DIMENSIONS - DOUBLE REDUCTION FLANGE MOUNT



Sizes
1, 2, 3, 4, 5, 6, 7 and 8

Sizes
9, 10, 13 and 14

Low Speed Shaft

*For motor details refer to page 18

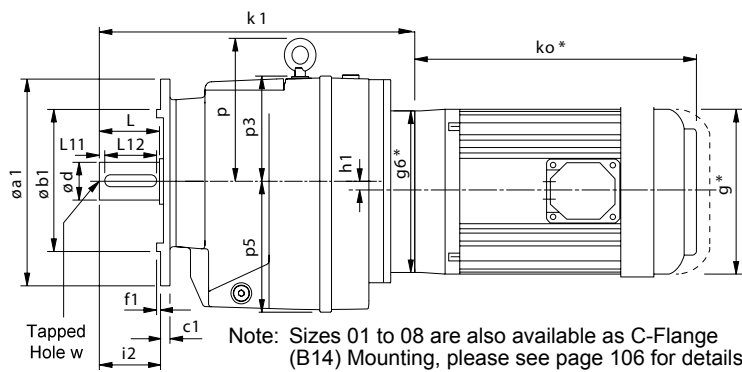
all parallel keys are to DIN 6885

Size	Øa1	Øb1	c1	Øe1	f1	h1	i2	p	p3	p5	s	Low Speed Shaft						
												d	L	L11	L12	t	u	w
M0122	120	80	9	100	3	-	40	-	74	76	9	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
	140	95	9	115	3		40				9							
	160	110	10	130	3.5		40				9							
	200	130	10	165	3.5		40				11							
M0222	120	80	10	100	3	-	50	-	90	91	6.6	25 k6	50	4	40	28	8	M10 x 1.5 16 deep
	140	95	10	115	3		50				9							
	160	110	10	130	3.5		50				9							
	200	130	10	165	3.5		50				11							
M0322	120	80	10	100	3	-	50	-	90	91	6.6	25 k6	50	4	40	28	8	M10 x 1.5 16 deep
	140	95	10	115	3		50				9							
	160	110	10	130	3.5		50				9							
	200	130	10	165	3.5		50				11							
M0422	140	95	11	115	3	-	60	-	93	115	9	30 k6	60	4	50	33	8	M10 x 1.5 16 deep
	160	110	11	130	3.5		60				9							
	200	130	11	165	3.5		60				11							
	250	180	11	215	4		60				13.5							
M0522	140	95	11	115	3	-	70	-	93	115	9	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	160	110	11	130	3.5		70				9							
	200	130	11	165	3.5		70				11							
	250	180	11	215	4		70				13.5							
M0622	200	130	11	165	4	14.5	70	116	84	130	11	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	250	180	11	215	4		70				13.5							
	300	230	11	265	4		70				13.5							
M0722	200	130	11	165	3.5	-	80	155	110	140	11	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
	250	180	11	215	4		80				13.5							
	300	230	11	265	4		80				13.5							
M0822	300	230	17	265	4	-	100	180	130	182	13.5	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
	350	250	17	300	5		100				17.5							
M0921	450	350	18	400	5	-	140	198	-	230	18	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1021	450	350	22	400	5	-	140	245	-	260	18	60 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1321	550	450	25	500	5	-	170	288	-	278	18	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1421	550	450	25	500	5	-	210	320	-	318	18	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

MOTOR FRAME SIZE	M0122	M0222	M0322	M0422	M0522	M0622	M0722	M0822	M0921	M1021	M1321	M1421
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	209	240	240	270	280	301	-	-	-	-	-	-
71	213	244	244	276	286	307	-	-	-	-	-	-
80	226	257	257	294	304	325	362	477	523	-	-	-
90	236	267	267	304	314	335	372	477	523	-	-	-
100	244	275	275	331	341	362	384	483	529	596	717	832
112	244	275	275	331	341	362	384	483	529	596	717	832
132	-	-	-	331	341	362	406	483	564	596	717	832
160	-	-	-	-	-	-	414	513	564	631	710	825
180	-	-	-	-	-	-	-	-	564	564	710	825
200	-	-	-	-	-	-	-	-	564	564	710	825
225	-	-	-	-	-	-	-	-	591	591	737	852
250	-	-	-	-	-	-	-	-	-	-	909	1024
280	-	-	-	-	-	-	-	-	-	-	909	1024

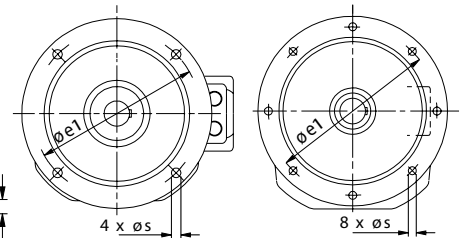
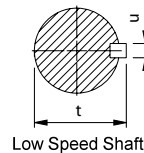
SERIES M

DIMENSIONS - TRIPLE REDUCTION FLANGE MOUNT



Sizes
1, 2, 3, 4, 5, 6, 7 and 8

Sizes
9, 10, 13 and 14



*For motor details refer to page 18

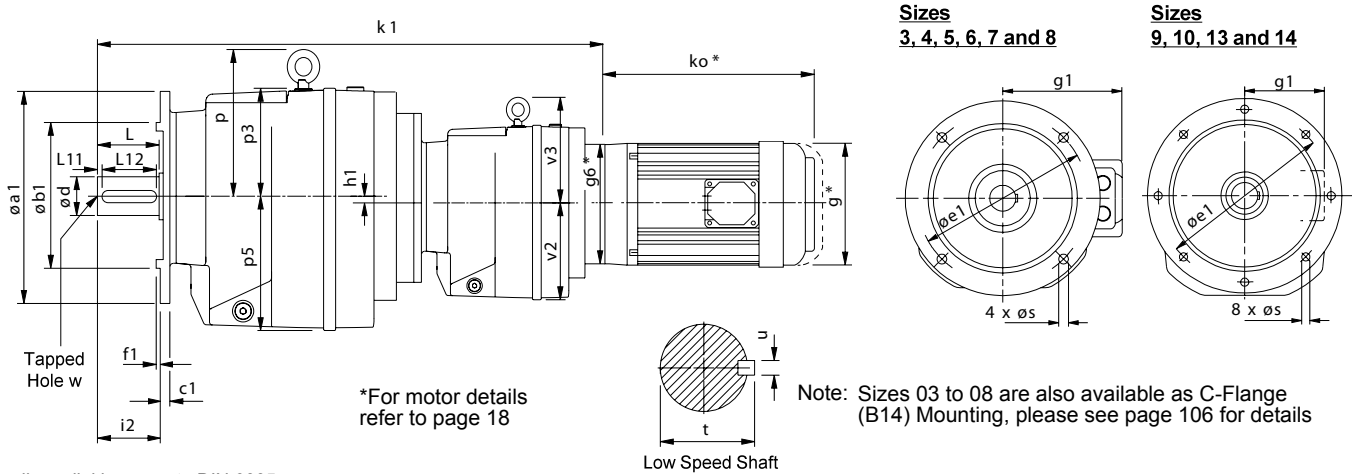
all parallel keys are to DIN 6885

Size	Øa1	Øb1	c1	Øe1	f1	h1	i2	p	p3	p5	s	Low Speed Shaft						
												d	L	L11	L12	t	u	w
M0132	120	80	9	100	3	-	40	-	74	76	9	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
	140	95	9	115	3		40				9							
	160	110	10	130	3.5		40				9							
	200	130	10	165	3.5		40				11							
M0232	120	80	10	100	3	-	50	-	90	91	6.6	25 k6	50	4	40	28	8	M10 x 1.5 16 deep
	140	95	10	115	3		50				9							
	160	110	10	130	3.5		50				9							
	200	130	10	165	3.5		50				11							
M0332	120	80	10	100	3	-	50	-	90	91	6.6	25 k6	50	4	40	28	8	M10 x 1.5 16 deep
	140	95	10	115	3		50				9							
	160	110	10	130	3.5		50				9							
	200	130	10	165	3.5		50				11							
M0432	140	95	11	115	3	-	60	-	93	115	9	30 k6	60	4	50	33	8	M10 x 1.5 16 deep
	160	110	11	130	3.5		60				9							
	200	130	11	165	3.5		60				11							
	250	180	11	215	4		60				13.5							
M0532	140	95	11	115	3	-	70	-	93	115	9	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	160	110	11	130	3.5		70				9							
	200	130	11	165	3.5		70				11							
	250	180	11	215	4		70				13.5							
M0632	200	130	11	165	4	14.5	70	116	84	130	11	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	250	180	11	215	4		70				13.5							
	300	230	11	265	4		70				13.5							
M0732	200	130	11	165	3.5	-	80	155	110	140	11	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
	250	180	11	215	4		80				13.5							
	300	230	11	265	4		80				13.5							
M0832	300	230	17	265	4	-	100	180	130	182	13.5	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
	350	250	17	300	5		100				17.5							
M0931	450	350	18	400	5	-	140	198	-	230	18	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1031	450	350	22	400	5	-	140	245	-	260	18	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1331	550	450	25	500	5	-	170	288	-	278	18	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1431	550	450	25	500	5	-	210	320	-	318	18	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

MOTOR FRAME SIZE	M0132	M0232	M0332	M0432	M0532	M0632	M0732	M0832	M0931	M1031	M1331	M1431
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	224	253	253	300	310	331	353	-	-	-	-	-
71	228	257	257	304	314	335	359	-	-	-	-	-
80	241	270	270	317	327	348	377	462	549	647	-	-
90	251	280	280	327	337	358	387	472	549	647	-	-
100	259	288	288	335	345	366	414	484	555	653	779	904
112	259	288	288	335	345	366	414	484	555	653	779	904
132	-	-	-	-	-	-	414	506	-	653	779	904
160	-	-	-	-	-	-	-	-	-	688	772	897
180	-	-	-	-	-	-	-	-	-	688	772	897
200	-	-	-	-	-	-	-	-	-	688	772	897
225	-	-	-	-	-	-	-	-	-	715	799	924
250	-	-	-	-	-	-	-	-	-	-	971	1096
280	-	-	-	-	-	-	-	-	-	-	971	1096

SERIES M

DIMENSIONS - QUADRUPLE REDUCTION FLANGE MOUNT



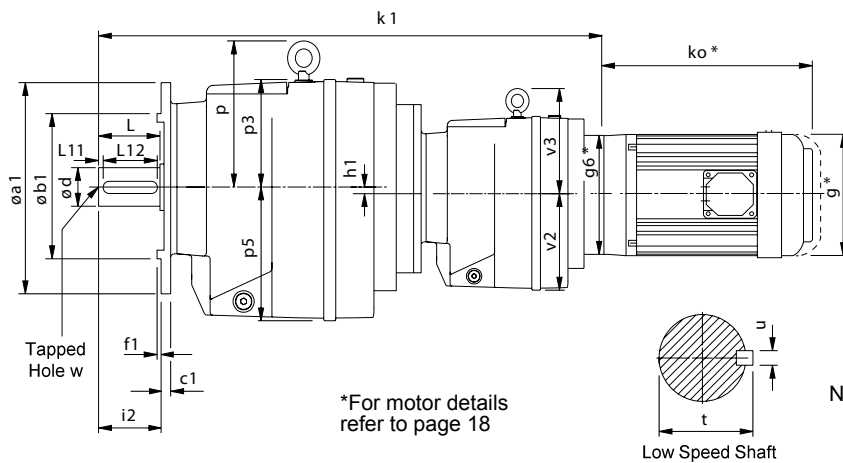
all parallel keys are to DIN 6885

Size	$\phi a1$	$\phi b1$	c1	$\phi e1$	f1	h1	i2	p	p3	p5	s	v2	v3	Low Speed Shaft						
														d	L	L11	L12	t	u	w
M0342	120	80	10	100	3	-	50	-	89	91	6.6	76	-	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
	140	95	10	115	3		50				9									
	160	110	10	130	3.5		50				9									
	200	130	10	165	3.5		50				11									
M0442	140	95	11	115	3	-	60	-	91	115	9	91	-	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
	160	110	11	130	3.5		60				9									
	200	130	11	165	3.5		60				11									
	250	180	11	215	4		60				13.5									
M0542	140	95	11	115	3	-	70	-	91	115	9	91	-	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	160	110	11	130	3.5		70				9									
	200	130	11	165	3.5		70				11									
	250	180	11	215	4		70				13.5									
M0642	200	130	11	165	4	14.5	70	113	81	130	11	91	-	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	250	180	11	215	4		70				13.5									
	300	230	11	265	4		70				13.5									
M0742	200	130	11	165	3.5	-	80	152	107	140	11	91	-	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
	250	180	11	215	4		80				13.5									
	300	230	11	265	4		80				13.5									
M0842	300	230	17	265	4	-	100	175	125	182	13.5	115	-	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
	350	250	17	300	5		100				17.5									
M0941	450	350	18	400	5	-	140	198	-	230	18	140	-	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1041	450	350	22	400	5	-	140	245	-	260	18	140	155	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1341	550	450	25	500	5	-	170	288	-	278	18	140	155	90 m6	170	15	140	95	25	M20 x 3.0 50 deep
M1441	550	450	25	500	5	-	210	320	-	318	18	140	155	100 m6	210	15	180	106	28	M20 x 3.0 50 deep

MOTOR FRAME SIZE	M0342	M0442	M0542	M0642	M0742	M0842	M0941	M1041	M1341	M1441
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	426	494	504	525	562	652	733	-	-	-
71	430	498	508	529	566	658	739	-	-	-
80	443	511	521	542	579	676	757	878	999	1114
90	453	521	531	552	589	686	767	888	1009	1124
100	-	-	-	-	-	713	794	900	1021	1136
112	-	-	-	-	-	713	794	900	1021	1136
132	-	-	-	-	-	713	794	922	1043	1158
160	-	-	-	-	-	-	-	930	1051	1166

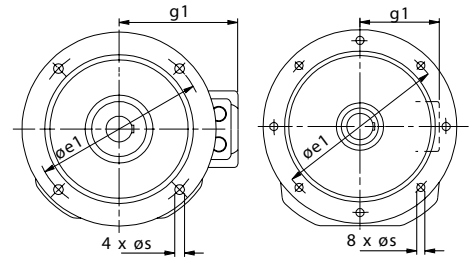
SERIES M

DIMENSIONS - QUINTUPLE REDUCTION FLANGE MOUNT



Sizes
3, 4, 5, 6, 7 and 8

Sizes
9, 10, 13 and 14



Note: Sizes 03 to 08 are also available as C-Flange (B14) Mounting, please see page 106 for details

all parallel keys are to DIN 6885

Size	$\phi a1$	$\phi b1$	$c1$	$\phi e1$	$f1$	$h1$	$i2$	p	$p3$	$p5$	s	$v2$	$v3$	Low Speed Shaft						
														d	L	$L11$	$L12$	t	u	w
M0352	120	80	10	100	3	-	50	-	89	91	6.6	76	-	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
	140	95	10	115	3		50				9									
	160	110	10	130	3.5		50				9									
	200	130	10	165	3.5		50				11									
M0452	140	95	11	115	3	-	60	-	91	115	9	91	-	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
	160	110	11	130	3.5		60				9									
	200	130	11	165	3.5		60				11									
	250	180	11	215	4		60				13.5									
M0552	140	95	11	115	3	-	70	-	91	115	9	91	-	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	160	110	11	130	3.5		70				9									
	200	130	11	165	3.5		70				11									
	250	180	11	215	4		70				13.5									
M0652	200	130	11	165	4	14.5	70	113	81	130	11	91	-	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
	250	180	11	215	4		70				13.5									
	300	230	11	265	4		70				13.5									
M0752	200	130	11	165	3.5	-	80	152	107	140	11	91	-	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
	250	180	11	215	4		80				13.5									
	300	230	11	265	4		80				13.5									
M0852	300	230	17	265	4	-	100	175	125	182	13.5	115	-	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
	350	250	17	300	5		100				17.5									
M0951	450	350	18	400	5	-	140	198	-	230	18	115	-	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1051	450	350	22	400	5	-	140	245	-	260	18	140	155	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1351	550	450	25	500	5	-	170	288	-	278	18	140	155	90 m6	170	15	140	95	25	M20 x 3.0 50 deep
M1451	550	450	25	500	5	-	210	320	-	318	18	140	155	100 m6	210	15	180	106	28	M20 x 3.0 50 deep

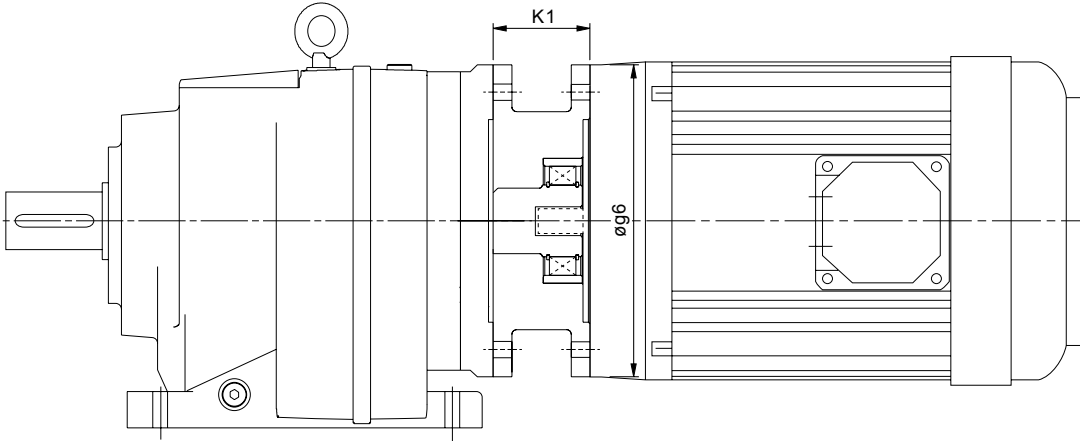
MOTOR FRAME SIZE	M0352	M0452	M0552	M0652	M0752	M0852	M0951	M1051	M1351	M1451
	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1
63	441	507	517	538	575	682	763	869	990	1105
71	445	511	521	542	579	686	767	875	996	1111
80	458	524	534	555	592	699	780	893	1014	1129
90	468	534	544	565	602	709	790	903	1024	1139
100	-	-	-	-	-	-	-	930	1051	1166
112	-	-	-	-	-	-	-	930	1051	1166

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



Warning

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

IEC B5 FLANGE

Motor Frame Size	Lift off Speed ('n' min) (rev/min)	Rated Locking Torque ('T max') (at motor) (Nm)	øg6	K1
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

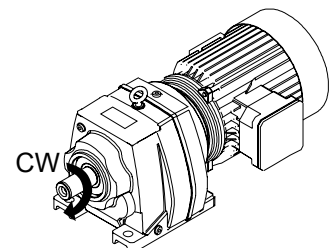
NEMA C FLANGE

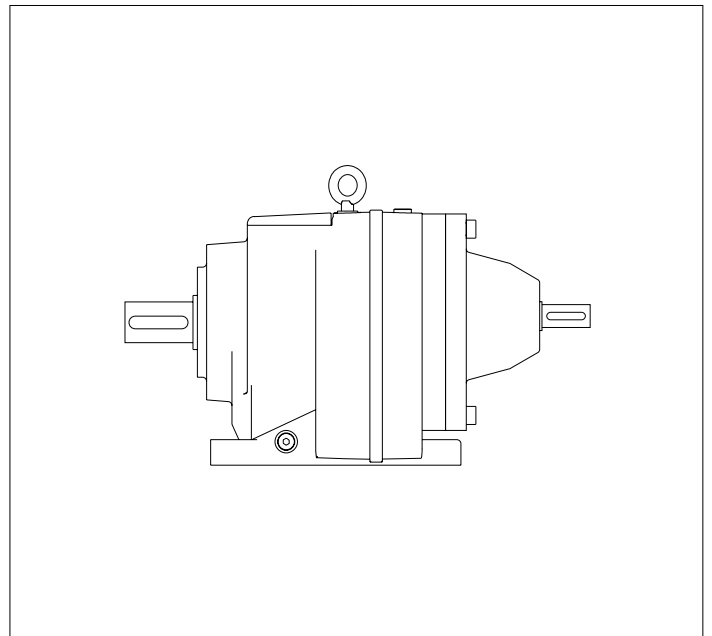
Motor Frame Size	Lift off Speed ('n' min) (rev/min)	Rated Locking Torque ('T max') (at motor) (Nm)	øg6	K1
182TC / 184TC	670	300	228	95.25
213TC / 215 TC	670	300	228	95.25
254TC / 256TC	620	940	228	120.65
284TC / 286TC	620	940	280	136.5
324TC / 326TC	550	1260	330	152.4

When a backstop module is fitted dimension K1 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) see page 20 for column 20 entry

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





REDUCER
SERIES M

SERIES M

OVERHUNG & AXIAL LOADS (NEWTONS) 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 our Application Engineers 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

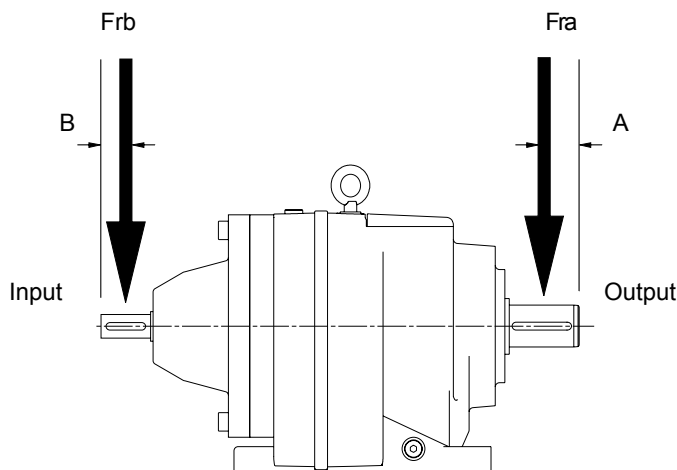
Overhung member

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 Fra output or Frb input, refer to our Application Engineers.

Note: 1 Newton = 0.101972 kp = 0.227809 lbf.



Distance midway along the shaft extension

Size of unit	No. of Reductions	Dimension A (mm)	Dimension B (mm)
M01	2 - 3	20	20
M02	2 - 3	25	20
M03	2 - 5	25	20
M04	2 - 5	30	20
M05	2 - 5	35	20
M06	2 - 5	35	20
M07	2	40	25
	3	40	20
	4 - 5	40	20
M08	2	50	30
	3	50	25
	4 - 5	50	20
M09	2	60	40
	3	60	30
	4 - 5	60	20
M10	2	70	55
	3	70	40
	4 - 5	70	25
M13	2 - 3	85	55
	4	85	25
	5	85	20
M14	2 - 3	105	55
	4	105	25
	5	105	20

SERIES M

OVERHUNG & AXIAL LOADS (NEWTONS) ON SHAFTS

Inputshaft Overhung Loads, Frb (Kn) 1450 rpm

Two, Three, Four and Five Stage Units

	M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M13	M14
2 Stage	1.5	1.65	1.56	1.2	1.1	0.9	1.65	1.5	1.5	2.55	6.9	7.1
3 stage	1.65	1.75	1.75	1.5	1.5	1.5	1.8	2.25	3.5	4.2	12	12
4 Stage	-	-	1.5	1.5	1.5	1.5	1.5	1.75	1.75	2.25	2.25	2.25
5 Stage	-	-	1.5	1.5	1.5	1.5	1.5	1.75	1.75	2.25	2.25	2.25

For output overhung load Fra consult ratings tables

Axial Thrust Capacities (Newtons)

No check or calculation is required for axial loads (F_A) towards or away from the unit up to 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.

SERIES M

DOUBLE REDUCTION RATINGS

SIZES M01 - M04

P_m - Input Power (kW) *N₂* - Output Speed (rpm)
M₂ - Output Torque (Nm) *fra* - Overhung Load (kN)
i - Exact Ratio (:1)

DOUBLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0122					M0222					M0322					M0422				
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6	7	8																					
3	.	6	2900	773	3.75	47	3.97	0.98	808	3.589	79	7	3.00	808	3.589	96	8.45	2.05	809	3.585	161	14.2	2.05
			1450	387		59	2.49	0.98	404		100	4.39	3.10	404		118	5.18	2.30	404		203	8.87	2.30
			960	256		68	1.89	0.98	268		115	3.33	3.10	268		134	3.88	2.30	268		233	6.72	2.60
			725	193		73	1.53	0.98	202		126	2.74	3.10	202		146	3.18	2.30	202		256	5.57	3.45
5	.	0	2900	572	5.066	54	3.34	0.98	576	5.034	92	5.76	3.00	576	5.034	110	6.87	2.05	575	5.04	188	11.8	2.05
			1450	286		68	2.09	0.98	288		116	3.61	3.10	288		135	4.22	2.30	288		237	7.37	2.45
			960	190		76	1.55	0.98	191		131	2.7	3.10	191		153	3.16	2.30	190		272	5.59	3.20
			725	143		79	1.22	1.00	144		137	2.13	3.15	144		167	2.59	2.30	144		290	4.49	4.60
5	.	6	2900	503	5.762	57	3.1	0.98	523	5.547	96	5.44	3.05	523	5.547	114	6.47	2.05	513	5.649	198	11	2.05
			1450	252		71	1.95	0.98	261		121	3.41	3.10	261		140	3.97	2.30	257		249	6.91	2.60
			960	167		78	1.41	1.00	173		134	2.5	3.10	173		159	2.97	2.30	170		286	5.23	3.40
			725	126		82	1.11	1.02	131		140	1.97	3.15	131		173	2.44	2.30	128		298	4.12	4.70
6	.	3	2900	444	6.528	60	2.87	0.98	460	6.299	101	5.04	3.05	460	6.299	120	5.98	2.10	457	6.341	208	10.3	2.10
			1450	222		75	1.8	0.98	230		127	3.16	3.10	230		147	3.67	2.30	229		262	6.46	2.90
			960	147		80	1.27	1.00	152		138	2.27	3.10	152		167	2.74	2.32	151		294	4.79	4.60
			725	111		84	1.01	1.04	115		145	1.8	3.20	115		182	2.25	2.35	114		307	3.78	4.75
8	.	0	2900	347	8.348	66	2.48	0.98	362	8	111	4.36	3.10	362	8	130	5.13	2.10	360	8.053	229	8.94	2.30
			1450	174		79	1.49	0.98	181		136	2.67	3.10	181		161	3.15	2.30	180		289	5.61	3.45
			960	115		85	1.06	1.04	120		145	1.88	3.25	120		182	2.36	2.35	119		310	3.99	4.70
			725	87		90	0.84	1.18	91		154	1.51	3.50	91		198	1.93	2.40	90		326	3.16	5.10
9	.	0	2900	322	8.997	67	2.36	0.98	319	9.088	116	4.02	3.10	319	9.088	136	4.71	2.10	318	9.129	241	8.29	2.40
			1450	161		80	1.4	1.00	160		140	2.41	3.10	160		168	2.89	2.30	159		299	5.13	4.60
			960	107		87	1	1.09	106		150	1.71	3.40	106		190	2.17	2.35	105		319	3.61	4.85
			725	81		90	0.78	1.30	80		159	1.37	3.90	80		207	1.78	2.50	79		338	2.89	6.00
1	1	.	2900	255	11.359	74	2.04	0.98	260	11.154	125	3.53	3.10	260	11.154	146	4.11	2.10	266	10.887	258	7.44	2.60
			1450	128		84	1.16	1.02	130		145	2.04	3.15	130		179	2.52	2.30	133		311	4.46	4.70
			960	85		90	0.82	1.30	86		158	1.46	3.55	86		203	1.89	2.40	88		333	3.17	5.55
			725	64		90	0.62	1.45	65		160	1.12	4.00	65		209	1.47	2.75	67		338	2.42	6.40
1	2	.	2900	225	12.877	77	1.89	0.98	234	12.371	130	3.31	3.10	234	12.371	151	3.84	2.15	231	12.536	272	6.82	2.90
			1450	113		87	1.06	1.04	117		148	1.88	3.20	117		186	2.36	2.35	116		320	3.99	4.75
			960	75		90	0.72	1.40	78		160	1.34	3.70	78		209	1.75	2.55	77		338	2.79	6.00
			725	56		90	0.55	1.50	59		160	1.01	4.00	59		209	1.32	2.80	58		338	2.11	6.40
1	4	.	2900	197	14.715	80	1.7	0.98	206	14.054	136	3.05	3.10	206	14.054	158	3.52	2.15	199	14.58	288	6.2	3.10
			1450	99		90	0.96	1.09	103		153	1.71	3.30	103		194	2.16	2.35	99		329	3.53	4.85
			960	65		90	0.63	1.40	68		160	1.18	3.85	68		209	1.54	2.75	66		338	2.4	6.40
			725	49		90	0.48	1.50	52		160	0.89	4.00	52		209	1.16	2.85	50		338	1.81	6.70
1	6	.	2900	177	16.369	81	1.56	0.98	182	15.968	141	2.79	3.10	182	15.968	166	3.28	2.15	178	16.312	304	5.86	3.50
			1450	89		90	0.86	1.18	91		160	1.57	3.50	91		205	2.02	2.40	89		338	3.25	5.10
			960	59		90	0.57	1.45	60		160	1.04	4.00	60		209	1.36	2.80	59		338	2.15	6.50
			725	44		90	0.43	1.50	45		160	0.79	4.00	45		209	1.03	2.90	44		338	1.62	7.10
1	8	.	2900	161	18.047	83	1.44	1.00	165	17.584	142	2.54	3.10	165	17.584	169	3.03	2.30	167	17.386	306	5.52	4.50
			1450	80		90	0.78	1.35	82		160	1.43	3.90	82		208	1.86	2.45	83		338	3.04	5.55
			960	53		90	0.52	1.48	55		160	0.94	4.00	55		209	1.23	2.80	55		338	2.01	6.70
			725	40		90	0.39	1.60	41		160	0.71	4.00	41		209	0.93	3.05	42		338	1.52	7.20
2	0	.	2900	146	19.861	84	1.33	1.00	143	20.226	145	2.26	3.15	143	20.226	177	2.76	2.30	141	20.605	315	4.81	4.60
			1450	73		90	0.71	1.40	72		160	1.24	3.95	72		209	1.62	2.60	70		338	2.57	6.00
			960	48		90	0.47	1.50	47		160	0.82	4.00	47		209	1.07	2.90	47		338	1.7	7.10
			725	37		90	0.35	1.60	36		160	0.62	4.00	36		209	0.81	3.10	35		338	1.28	7.20
2	2	.	2900	125	23.269	86	1.17	1.02	132	21.989	147	2.11	3.15	132	21.989	182	2.61	2.30	132	22	319	4.56	4.70
			1450	62		90	0.61	1.45	66		160	1.14	4.00	66		209	1.49	2.75	66		338	2.41	6.40
			960	41		90	0.4	1.55	44		160	0.76	4.00	44		209	0.99	3.05	44		338	1.59	7.10
			725	31		90	0.3	1.90	33		160	0.57	4.00	33		209	0.75	3.10	33		338	1.2	7.20
2	8	.	2900	104	27.917	90	1.01	1.05	110	26.397	153	1.83	3.20	110	26.397	193	2.3	2.35	106	27.3	331	3.82	4.80
			1450	52		90	0.51	1.48	55		160	0.95	4.00	55		209	1.25	2.80	53		338	1.94	6.70
			960	34		90	0.34	1.60	36		160	0.63	4.00	36		209	0.82	3.10	35		338	1.29	7.20
			725	26		90	0.25	1.90	27		160	0.48	4.00	27		209	0.62	3.15	27		338	0.97	7.20
3	2	.	2900	89	32.542	90	0.87	1.18	92	31.677	160	1.59	3.50	92	31.677	205	2.04	2.40	90	32.192	338	3.31	5.10
			1450	45		90	0.44	1.50	46		160	0.8	4.00	46		209	1.04	2.90	45		338	1.65	7.10
			960	30		90	0.29	1.90	30		160	0.53	4.00	30		209	0.69	3.10	30		338	1.09	7.20
			725	22		90	0.22	1.90	23		160	0.4	4.00	23		209	0.52	3.15	23		338	0.82	7.20
3	6	.	2900	80	36.157	90	0.79	1.35	81	35.692	160	1.42	3.90	81	35.692	209	1.85	2.45	82	35.25	338	3.02	8.55
			1450	40		90	0.39	1.60	41		160	0.71	4.00	41		209	0.92	3.05	41		338	1.51	7.20
			960	27		90	0.26	1.90	27		160	0.47	4.00	27		209	0.61	3.15	27		338	1	7.20
			725	20		90	0.2	1.90	20		160	0.35	4.00	20		209	0.46	3.15	21		338	0.75	7.20
4	5	.	2900	67	43.542	84	0.61	1.45	70	41.492	160	1.22	4.00	70	41.492	188	1.43	2.60	67	43.2	338	2.47	6.40
			1450	33		84	0.3	1.90	35		160	0.61	4.00	35		209	0.75	3.10	34		338	1.23	7.20
			960	22		84	0.2	1.90	23		160	0.4	4.00	23		206	0.52	3.15	22		338	0.82	7.20
			725	17		84	0.15	1.90	17		160	0.3	4.00	17		209	0.4	3.15	17		338	0.62	7.20
5	0	.	2900	58	49.907	72	0.46	1.48	62	47.094	160	1.07	4.00	62	47.094	192	1.29	2.75	60	48.15	338	2.22	6.50
			1450	29		72	0.23	1.90	31		160	0.54	4.00	31		203	0.68	3.10	30		338	1.11	7.20
			960	19		72	0.15	1.90	20		160	0.35	4.00	20		208	0.46	3.15	20		338	0.73	7.20
			725	15		72	0.11	1.90	15		160	0.27	4.00	15		208	0.35	3.15	15		338	0.55	7.20
5	6	.	2900	51	56.719	71	0.4	1.50	54	53.538	160	0.95	4.00										

SERIES M

DOUBLE REDUCTION RATINGS

SIZES M05 - M08

Pm - Input Power (kW)
M2 - Output Torque (Nm)
i - Exact Ratio (:1)
N2 - Output Speed (rpm)
fra - Overhung Load (kN)

DOUBLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0522					M0622					M0722					M0822				
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6	7	8																					
3	.	6	2900	809	3.585	263	23.1	2.80					789	3.678	304	26.1	3.50	788	3.678	479	41.3	5.50	
			1450	404		292	12.8	2.80		394	306	13.1	3.50		394	483	20.7	6.20					
			960	268		293	8.44	2.80		261	307	8.65	3.50		261	484	13.7	6.25					
			725	202		293	6.38	2.80		197	307	6.53	3.50		197	485	10.3	6.36					
5	.	0	2900	575	5.04	317	19.7	2.80	653	4.438	326	23.1	4.00	569	5.094	423	26.1	3.50	556	5.214	683	41.3	5.60
			1450	288		382	11.8	2.80	327		362	12.8	4.35	285		425	13.1	3.50	278		686	20.7	6.20
			960	190		383	7.84	2.80	216		363	8.44	4.45	188		425	8.65	3.50	184		688	13.7	6.35
			725	144		383	5.92	2.85	163		363	6.38	4.50	142		426	6.53	3.50	139		688	10.3	6.50
5	.	6	2900	513	5.649	336	18.6	2.80	465	6.24	393	19.7	4.10	507	5.722	447	24.5	3.50	501	5.792	760	41.3	5.80
			1450	257		409	11.3	2.80	232		473	11.8	4.45	253		477	13.1	3.50	250		763	20.7	6.25
			960	170		412	7.54	2.80	154		474	7.84	4.50	168		478	8.65	3.50	166		764	13.7	6.40
			725	128		413	5.69	2.85	116		474	5.92	5.00	127		478	6.53	3.50	125		765	10.3	6.60
6	.	3	2900	457	6.341	354	17.5	2.80	415	6.994	416	18.6	4.20	461	6.292	464	23.2	3.50	450	6.442	832	40.6	6.00
			1450	229		413	10.2	2.85	207		510	11.4	4.45	230		525	13.1	3.50	225		849	20.7	6.30
			960	151		413	6.74	2.90	137		511	7.54	4.60	153		526	8.65	3.50	149		851	13.7	6.50
			725	114		414	5.09	2.90	104		511	5.69	5.20	115		526	6.53	3.50	113		851	10.3	6.70
8	.	0	2900	360	8.053	381	14.8	2.80	369	7.851	438	17.5	4.30	353	8.218	519	19.9	3.50	348	8.33	926	34.9	6.20
			1450	180		441	8.55	2.85	185		512	10.2	4.45	176		655	12.5	3.50	174		1100	20.7	6.35
			960	119		450	5.77	2.90	122		512	6.74	4.70	117		687	8.65	3.50	115		1100	13.7	6.70
			725	90		450	4.36	2.95	92		512	5.09	5.20	88		687	6.53	3.60	87		1100	10.3	7.25
9	.	0	2900	318	9.129	391	13.4	2.80	291	9.97	484	15.2	4.35	310	9.344	547	18.4	3.50	310	9.352	967	32.5	6.20
			1450	159		450	7.69	2.90	145		594	9.3	4.50	155		689	11.5	3.50	155		1220	20.5	6.50
			960	105		450	5.09	2.95	96		594	6.15	5.20	103		743	8.24	3.50	103		1240	13.7	7.10
			725	79		450	3.84	3.00	73		594	4.64	6.50	78		780	6.52	3.70	78		1240	10.3	8.00
1	1	.	2900	266	10.887	406	11.7	2.80	257	11.302	507	14	4.45	256	11.346	589	16.3	3.50	253	11.469	1040	28.4	6.20
			1450	133		450	6.45	2.90	128		604	8.34	4.70	128		726	10	3.50	126		1310	17.9	6.60
			960	88		450	4.27	2.95	85		607	5.55	5.85	85		773	7.06	3.60	84		1500	13.6	7.50
			725	67		450	3.22	4.00	64		607	4.19	7.20	64		811	5.59	4.25	63		1520	10.3	9.00
1	2	.	2900	231	12.536	418	10.5	2.85	215	13.479	538	12.5	4.45	232	12.481	611	15.4	3.50	224	12.923	1060	25.8	6.30
			1450	116		426	5.31	2.90	108		613	7.11	5.20	116		740	9.28	3.60	112		1340	16.3	6.90
			960	77		427	3.52	3.25	71		625	4.79	6.50	77		793	6.58	3.70	74		1540	12.4	8.50
			725	58		427	2.66	4.20	54		625	3.62	7.20	58		819	5.13	4.20	56		1690	10.2	9.00
1	4	.	2900	199	14.58	432	9.28	2.85	187	15.52	527	10.6	4.45	202	14.342	644	14.1	3.50	193	15.043	1120	23.3	6.30
			1450	99		450	4.82	2.95	93		528	5.31	5.20	101		761	8.31	3.60	96		1410	14.7	6.90
			960	66		450	3.19	4.00	62		528	3.52	7.20	67		808	5.84	4.00	64		1620	11.2	9.00
			725	50		450	2.41	4.25	47		528	2.66	7.20	51		830	4.53	4.50	48		1700	8.82	9.50
1	6	.	2900	178	16.312	442	8.5	2.85	161	18.051	584	10.1	4.50	178	16.263	684	13.2	3.50	174	16.686	1150	21.7	6.38
			1450	89		450	4.32	2.95	80		596	5.16	5.85	89		786	7.58	3.50	87		1420	13.4	7.25
			960	59		450	2.86	4.10	53		597	3.42	7.20	59		818	5.22	4.20	58		1420	8.85	9.00
			725	44		450	2.16	4.50	40		597	2.58	7.20	45		841	4.05	4.65	43		1420	6.68	9.50
1	8	.	2900	167	17.386	448	8.08	2.90	144	20.196	598	9.28	4.50	162	17.938	700	12.3	3.50	159	18.261	1160	19.9	6.50
			1450	83		450	4.05	3.00	72		626	4.85	6.50	81		794	6.93	3.60	79		1360	11.7	8.00
			960	55		450	2.68	4.20	48		626	3.21	7.20	54		826	4.77	4.50	53		1360	7.74	9.25
			725	42		450	2.02	4.50	36		626	2.42	7.20	40		849	3.71	5.10	40		1360	5.85	10.00
2	0	.	2900	141	20.605	450	6.85	2.90	135	21.526	601	8.75	4.60	141	20.543	731	11.2	3.50	140	20.659	1200	18.3	6.50
			1450	70		450	3.42	3.50	67		626	4.55	7.20	71		804	6.14	3.90	70		1460	11.1	8.50
			960	47		450	2.26	4.50	45		626	3.01	7.20	47		837	4.23	4.60	46		1460	7.34	9.50
			725	35		450	1.71	5.60	34		626	2.27	7.20	35		861	3.28	6.25	35		1460	5.54	12.30
2	2	.	2900	132	22	450	6.41	2.90	114	25.511	610	7.5	4.90	125	23.226	748	10.1	3.50	124	23.32	1230	16.6	6.60
			1450	66		450	3.2	4.00	57		626	3.84	7.20	62		813	5.5	4.20	62		1540	10.3	9.00
			960	44		450	2.12	4.50	38		626	2.54	7.20	41		847	3.79	5.10	41		1540	6.84	10.00
			725	33		450	1.6	6.30	28		626	1.92	7.20	31		867	2.93	7.40	31		1540	5.16	12.30
2	8	.	2900	106	27.3	450	5.17	2.90	106	27.238	614	7.07	5.20	108	26.928	768	8.97	3.50	103	28.269	1260	14	6.90
			1450	53		450	2.58	4.25	53		626	3.6	7.20	54		825	4.81	4.50	51		1580	8.8	9.25
			960	35		450	1.71	5.60	35		626	2.38	7.20	36		860	3.32	6.25	34		1670	6.13	12.30
			725	27		450	1.29	7.20	27		626	1.8	7.20	27		867	2.53	8.00	26		1670	4.63	14.00
3	2	.	2900	90	32.192	450	4.39	2.95	86	33.8	626	5.81	5.80	90	32.118	786	7.7	3.50	88	32.967	1280	12.2	7.25
			1450	45		450	2.19	4.50	43		626	2.9	7.20	45		840	4.11	4.65	44		1620	7.72	9.50
			960	30		450	1.45	6.30	28		626	1.92	7.20	30		867	2.81	7.40	29		1700	5.36	13.50
			725	23		450	1.1	7.20	21		626	1.45	7.20	23		868	2.12	9.20	22		1700	4.04	16.20
3	6	.	2900	82	35.25	450	4.02	3.00	73	39.857	626	4.93	6.50	82	35.173	792	7.1	3.60	80	36.213	1310	11.4	8.00
			1450	41		450	2.01	5.00	36		626	2.47	7.20	41		847	3.79	5.10	40		1650	7.18	10.00
			960	27		450	1.33	7.20	24		626	1.63	7.20	27		867	2.57	8.00	27		1700	4.88	14.00
			725	21		450	1	7.20	18		626	1.23	7.20	21		868	1.94	9.20	20		1700	3.69	16.20
4	5	.	2900	67	43.2	415	3.03	4.00	66	43.643	626	4.51	7.20	69	42.208	806	6.03	3.90	65	44.379	1340	9.51	9.00
			1450	34		424	1.55	5.60	33		626	2.25	7.20	34		863	3.23	6.25	33		1690	5.99	12.30
			960	22		439	1.06	7.20	22		626	1.49	7.20	23		868	2.15	9.20	22		1700	3.98	16.20
			725	17		450	0.82	7.20	17		626	1.13	7.20	17		868	1.62	9.20	16		1700	3.01	16.20
5	0	.	2900	60	48.15	379	2.48	4.00	54	53.486	514	3.03	7.20	60	48.562	700	4.56	4.20	60	48.462	1350	8.79	9.20
			1450	30		379	1.24	6.30	27		526	1.55	7.20	30		700	2.28	7.40	30		1690	5.48	13.50
			960	20		379	0.82	7.20	18		544	1.06	7.20	20		701	1.51	9.20	20		1700	3.65	16.20
			725	15		379	0.62	7.20	14		557	0.82	7.20	15		701	1.14	9.20	15		1700	2.76	16.20
5	6	.	2900																				

SERIES M

DOUBLE REDUCTION RATINGS

SIZES M09 - M14

Note: Input Power, Pm may exceed thermal limit,
Check thermal power page 107

Pm - Input Power (kW)
M2 - Output Torque (Nm)
i - Exact Ratio (:1)

N2 - Output Speed (rpm)
fra - Overhung Load (kN)

DOUBLE REDUCTION

Column Entry	Input Speed N1 (rpm)	M0921					M1021					M1321					M1421				
		N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
1 . 4	2900	1961	1.479	452	96.1	10.0	2011	1.442	719	156	12.0										
	1450	980		574	60.6	10.0	1005		722	78.2	12.0										
	960	649		661	46	10.1	666		722	51.8	12.2										
	725	490		727	38.2	10.1	503		723	39.1	12.2										
1 . 8	2900	1424	2.036	534	82.2	10.0	1439	2.015	1010	156	12.0										
	1450	712		677	51.8	10.1	720		1010	78.2	12.2										
	960	471		779	39.3	10.1	476		1010	51.8	12.2										
	725	356		856	32.6	10.2	360		1010	39.1	12.3										
2 . 2	2900	1271	2.282	565	77.5	10.0	1323	2.191	1100	156	12.0										
	1450	635		716	48.8	10.1	662		1100	78.2	12.2										
	960	421		824	37.1	10.2	438		1100	51.8	12.3										
	725	318		906	30.8	10.2	331		1100	39.1	12.3										
2 . 5	2900	1132	2.562	596	72.9	10.0	1165	2.489	1170	147	12.0										
	1450	566		756	45.9	10.1	583		1250	78.2	12.2										
	960	375		869	34.9	10.2	386		1250	51.8	12.3										
	725	283		956	28.9	10.4	291		1250	39.1	12.4										
2 . 8	2900	977	2.969	909	96.1	10.0	969	2.992	1490	156	12.0	999	2.904	1810	195	28.0	1004	2.888	2520	274	35.0
	1450	488		1150	60.6	10.1	485		1490	78.2	12.2	499		1810	97.4	28.7	502		2520	137	36.0
	960	323		1320	46	10.2	321		1500	51.8	12.3	331		1810	64.5	29.5	332		2520	90.6	37.5
	725	244		1460	38.2	10.4	242		1500	39.1	12.4	250		1810	48.7	30.0	251		2520	68.5	38.0
3 . 2	2900	878	3.301	671	63.6	10.1	895	3.242	1310	126	12.2	909	3.189	1980	195	28.3	893	3.247	2840	274	35.5
	1450	439		850	40	10.2	447		1570	75.2	12.3	455		1990	97.4	29.2	447		2840	137	37.0
	960	291		978	30.4	10.4	296		1570	49.8	12.4	301		1990	64.5	30.0	296		2840	90.6	38.0
	725	220		1070	25.2	10.6	224		1570	37.6	12.4	227		1990	48.7	31.0	223		2840	68.5	39.0
3 . 6	2900	786	3.688	692	58.6	10.1	829	3.5	1330	118	12.2	797	3.638	2250	195	28.3	759	3.822	3320	274	35.5
	1450	393		876	36.9	10.2	414		1570	69.7	12.3	399		2260	97.4	29.2	379		3330	137	37.0
	960	260		1010	28.1	10.4	274		1570	46.1	12.4	264		2260	64.5	30.0	251		3330	90.6	38.0
	725	197		1090	22.8	10.6	207		1570	34.8	12.4	199		2260	48.7	31.0	190		3330	68.5	39.0
4 . 0	2900	709	4.088	1070	82.2	10.1	694	4.179	2090	156	12.2	720	4.025	2510	195	28.3	720	4.029	3520	274	35.5
	1450	355		1360	51.8	10.2	347		2090	78.2	12.3	360		2510	97.4	29.5	360		3530	137	37.5
	960	235		1560	39.3	10.6	230		2090	51.8	12.4	239		2510	64.5	31.0	238		3530	90.6	39.0
	725	177		1710	32.6	10.8	173		2100	39.1	12.5	180		2510	48.7	32.5	180		3530	68.5	40.0
4 . 5	2900	633	4.582	1130	77.5	10.1	638	4.545	2200	152	12.2	656	4.421	2760	195	28.3	639	4.537	3970	274	35.5
	1450	316		1440	48.8	10.2	319		2280	78.2	12.3	328		2760	97.4	29.5	320		3970	137	37.5
	960	210		1650	37.1	10.6	211		2280	51.8	12.4	217		2760	64.5	31.0	212		3970	90.6	39.0
	725	158		1810	30.8	10.8	160		2280	39.1	12.5	164		2760	48.7	32.5	160		3970	68.5	40.0
5 . 0	2900	572	5.073	1330	82.2	10.1	587	4.938	2260	144	12.2	575	5.042	3130	195	28.7	544	5.333	4650	274	36.0
	1450	286		1680	51.8	10.4	294		2470	78.2	12.4	288		3140	97.4	30.0	272		4660	137	38.0
	960	189		1930	39.3	10.8	194		2470	51.8	12.5	190		3140	64.5	32.5	180		4660	90.6	40.0
	725	143		2120	32.6	11.0	147		2470	39.1	12.5	144		3140	48.7	35.0	136		4660	68.5	41.0
5 . 6	2900	510	5.686	1410	77.5	10.1	540	5.37	2340	137	12.2	524	5.538	3440	195	28.7	483	6.005	5240	274	36.0
	1450	255		1780	48.8	10.4	270		2690	78.2	12.4	262		3450	97.4	30.0	241		5240	137	38.0
	960	169		2040	37.1	10.8	179		2690	51.8	12.5	173		3450	64.5	32.5	160		5240	90.6	40.0
	725	128		2250	30.7	11.0	135		2690	39.1	12.5	131		3450	48.7	35.0	121		5240	68.5	41.0
6 . 3	2900	438	6.628	1350	63.6	10.2	431	6.724	2550	119	12.3	467	6.21	3880	195	29.2	443	6.548	5730	274	37.0
	1450	219		1700	40	10.6	216		3140	72.9	12.4	234		3880	97.4	31.0	221		5730	137	39.0
	960	145		1960	30.4	11.0	143		3370	51.8	12.5	155		3880	64.5	35.0	147		5730	90.6	41.0
	725	109		2150	25.2	11.4	108		3370	39.1	13.0	117		3880	48.7	38.0	111		5730	68.5	43.0
7 . 1	2900	392	7.404	1390	58.6	10.2	399	7.26	2620	113	12.3	422	6.879	4300	195	29.2	399	7.27	6370	274	37.0
	1450	196		1760	36.9	10.6	200		3230	69.5	12.4	211		4300	97.4	31.0	199		6360	137	39.0
	960	130		2020	28.1	11.0	132		3640	51.8	12.5	140		4300	64.5	35.0	132		6360	90.6	41.0
	725	98		2220	23.3	11.4	100		3640	39.1	13.0	105		4300	48.7	38.0	100		6370	68.5	43.0
8 . 0	2900	353	8.224	1670	63.6	10.2	365	7.945	2700	107	12.3	373	7.779	4840	195	29.5	335	8.667	7570	274	37.5
	1450	176		2080	39.5	10.8	182		3330	65.5	12.5	186		4840	97.4	32.5	167		7570	137	40.0
	960	117		2360	29.6	11.4	121		3760	49	13.0	123		4840	64.5	38.0	111		7570	90.6	43.0
	725	88		2560	24.3	13.0	91		3980	39.1	15.0	93		4850	48.7	42.0	84		7570	68.5	46.0
9 . 0	2900	316	9.188	1720	58.6	10.2	338	8.578	2780	102	12.3	337	8.618	5110	186	29.5	301	9.623	8410	274	37.5
	1450	158		2170	36.8	10.8	169		3420	62.4	12.5	168		5360	97.4	32.5	151		8400	137	40.0
	960	104		2450	27.5	11.4	112		3870	46.7	13.0	111		5370	64.5	38.0	100		8400	90.6	4

SERIES M

DOUBLE REDUCTION RATINGS

SIZES M09 - M14

Pm - Input Power (kW)
M2 - Output Torque (Nm)
i - Exact Ratio (:1)

N2 - Output Speed (rpm)
fra - Overhung Load (kN)

DOUBLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0921					M1021					M1321					M1421				
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6	7	8																					
1	2		2900	228	12.739	1930	47.4	10.6	232	12.509	3160	79.1	12.4	234	12.391	5370	136	31.0	218	13.322	10200	241	39.0
			1450	114		2420	29.6	11.4	116		3890	48.6	13.0	117		6350	80.3	38.0	109		10200	121	43.0
			960	75		2740	22.2	13.0	77		4400	36.4	15.0	77		6350	53.2	42.0	72		10200	79.8	46.0
			725	57		2860	17.5	17.0	58		4410	27.5	23.0	59		6350	40.1	51.0	54		10200	60.2	60.0
1	4		2900	200	14.525	2000	43.1	10.6	205	14.161	3290	72.9	12.4	207	14.031	5880	131	31.0	192	15.127	10400	215	39.0
			1450	100		2530	27.1	11.4	102		4050	44.8	13.0	103		6290	70.3	38.0	96		10400	108	43.0
			960	66		2860	20.3	15.7	68		4410	32.2	15.9	68		6290	46.5	45.0	63		10400	71.3	52.0
			725	50		2860	15.3	17.0	51		4410	24.3	23.0	52		6290	35.1	51.0	48		10400	53.8	60.0
1	6		2900	175	16.591	1750	32.9	10.8	177	16.426	3460	65.9	12.5	182	15.969	6070	119	32.5	177	16.429	8970	172	40.0
			1450	87		2210	20.7	13.0	88		3770	35.9	15.0	91		6200	60.8	42.0	88		11100	106	46.0
			960	58		2530	15.7	17.0	58		3770	23.7	23.0	60		6200	40.2	51.0	58		11100	70.2	60.0
			725	44		2640	12.4	22.4	44		3770	17.9	28.0	45		6200	30.4	56.0	44		11100	53	70.0
1	8		2900	157	18.433	1760	29.9	10.8	159	18.253	3520	60.4	12.5	161	18	6200	108	32.5	160	18.112	9260	161	40.0
			1450	79		2230	18.9	13.0	79		3770	32.3	15.0	81		6200	53.9	42.0	80		11100	96.2	46.0
			960	52		2560	14.3	17.0	53		3770	21.4	23.0	53		6200	35.7	51.0	53		11100	63.7	60.0
			725	39		2640	11.2	22.4	40		3770	16.1	28.0	40		6200	26.9	56.0	40		11100	48.1	70.0
2	0		2900	141	20.588	2160	32.9	11.0	149	19.409	3650	58.9	12.5	145	20.005	5980	94.1	35.0	133	21.745	10600	153	41.0
			1450	70		2730	20.7	15.7	75		4410	35.6	15.9	72		6350	49.9	45.0	67		10600	76.7	52.0
			960	47		2860	14.3	22.4	49		4410	23.5	28.0	48		6350	33	56.0	44		10600	50.7	70.0
			725	35		2860	10.8	26.2	37		4410	17.8	34.0	36		6350	24.9	60.0	33		10600	38.3	79.0
2	2		2900	127	22.874	2190	29.9	11.0	134	21.568	3770	54.9	12.5	129	22.549	6350	88.6	35.0	121	23.974	10800	142	41.0
			1450	63		2760	18.9	15.7	67		4410	32	15.9	64		6350	44.3	45.0	60		10800	70.7	52.0
			960	42		2860	12.9	22.4	45		4410	21.2	28.0	43		6350	29.3	56.0	40		10800	46.8	70.0
			725	32		2860	9.75	26.2	34		4410	16	34.0	32		6350	22.1	60.0	30		10800	35.4	79.0
2	5		2900	111	26.037	1880	22.6	11.4	111	26.029	3760	45.2	13.0	114	25.455	6200	76.7	38.0	111	26.071	9530	115	43.0
			1450	56		2370	14.2	17.0	56		3770	22.7	23.0	57		6200	38.3	51.0	56		10600	63.8	60.0
			960	37		2640	10.5	26.2	37		3770	15	34.0	38		6200	25.4	60.0	37		10600	42.2	79.0
			725	28		2640	7.93	28.0	28		3770	11.3	40.0	28		6200	19.1	64.0	28		10600	31.9	79.0
2	8		2900	101	28.744	1900	20.7	11.4	97	29.992	3770	39.5	13.0	102	28.35	6200	68.9	38.0	103	28.247	9770	109	43.0
			1450	50		2400	13	17.0	48		3770	19.7	23.0	51		6200	34.4	51.0	51		9970	55.6	60.0
			960	33		2640	9.51	26.2	32		3770	13	34.0	34		6200	22.8	60.0	34		9980	36.8	79.0
			725	25		2640	7.18	28.0	24		3770	9.85	40.0	26		6200	17.2	64.0	26		9980	27.8	79.0
3	2		2900	90	32.31	2330	22.6	13.0	94	30.756	4220	43.1	15.0	91	31.888	6350	62.9	42.0	84	34.509	10700	97.6	46.0
			1450	45		2860	13.8	22.4	47		4410	22.5	28.0	45		6350	31.4	56.0	42		10700	48.8	70.0
			960	30		2860	9.16	28.0	31		4410	14.9	40.0	30		6350	20.8	64.0	28		10700	32.3	79.0
			725	22		2860	6.92	28.0	24		4410	11.2	40.0	23		6350	15.7	64.0	21		10700	24.4	79.0
3	6		2900	81	35.669	2350	20.7	13.0	82	35.438	4410	39.1	15.0	82	35.515	6350	56.6	42.0	78	37.388	10800	91.3	46.0
			1450	41		2860	12.5	22.4	41		4410	19.5	28.0	41		6350	28.3	56.0	39		10800	45.6	70.0
			960	27		2860	8.3	28.0	27		4410	12.9	40.0	27		6350	18.7	64.0	26		10800	30.2	79.0
			725	20		2860	6.26	28.0	20		4410	9.76	40.0	20		6350	14.1	64.0	19		10800	22.8	79.0
4	0		2900	72	40.252	2460	19.3	15.7	78	37.059	4160	35.3	15.9	74	39.008	6090	49.4	45.0	74	39.42	9400	75.7	52.0
			1450	36		2470	9.62	26.2	39		4160	17.6	34.0	37		6460	26.2	60.0	37		9940	39.9	79.0
			960	24		2470	6.37	28.0	26		4160	11.7	40.0	25		6460	17.4	64.0	24		10100	26.9	79.0
			725	18		2470	4.81	28.0	20		4160	8.82	40.0	19		6460	13.1	64.0	18		10100	20.3	79.0
4	5		2900	65	44.438	2470	17.4	15.7	68	42.7	4160	30.7	15.9	67	43.445	6160	45	45.0	68	42.709	9460	70.2	52.0
			1450	33		2470	8.71	26.2	34		4160	15.3	34.0	33		6460	23.6	60.0	34		10000	37.1	79.0
			960	22		2470	5.77	28.0	22		4160	10.1	40.0	22		6460	15.6	64.0	22		10100	24.8	79.0
			725	16		2470	4.35	28.0	17		4160	7.66	40.0	17		6460	11.8	64.0	17		10100	18.7	79.0
5	0		2900	59	49.069	2430	15.6	17.0	61	47.929	4250	27.9	23.0	60	48.629	5660	36.7	51.0	57	51.273	8130	50.1	60.0
			1450	30		2860	9.14	28.0	30		4260	14	40.0	30		5660	18.4	64.0	28		8140	25.1	79.0
			960	20		2860	6.05	28.0	20		4260	9.25	40.0	20		5660	12.2	64.0	19		8140	16.6	79.0
			725	15		2860	4.57	28.0	15		4260	6.98	40.0	15		5660	9.19	64.0	14		8140	12.5	79.0
5	6		2900	53	55.176	2120	12.1	17.0	56	51.494	3870	23.7	23.0	56	51.738	6020	36.7	51.0	50	57.515	8440	46.5	60.0
			1450	26		2000	5.71	28.0	28		3870	11.8	40.0	28		6030	18.4	64.0	25		8450	23.2	79.0
			960	17		1940	3.67	28.0	19		3870	7.84	40.0	19		6030	12.2	64.0	17		8450	15.4	79.0
			725	13		1910	2.72	28.0	14		3870	5.92	40.0	14		6030	9.19	64.0	13		8450	11.6	79.0
6	3		2900	47	61.131	2470	12.7	22.4	50	57.75	4160	22.7	28.0	49	59.488	6360	33.8	56.0	50	58.569	9270	50.1	70.0
			1450	24		2470	6.35	28.0	25		4160	11.4	40.0	24		6460	17.2	64.0	25		9270	25.1	79.0
			960	16		2470	4.21	28.0	17		4160	7.52	40.0	16		6460	11.4	64.0	16		9280	16.6	79.0
			725	12		2470	3.18	28.0	13		4160	5.68	40.0	12		6460	8.59	64.0	12		9280	12.5	79.0
7	1		2900	42	68.74	2470	11.3	22.4	47	62.045	4160	21.2	28.0	46	63.291	6400	32	56.0	44	65.7	9620	46.5	70.0
			1450	21		2470	5.66	28.0	23		4160	10.6	40.0	23		6460	16.1	64.0	22		9630	23.2	79.0
			960	14		2420	3.67	28.0	15		4160	7.02	40.0	15		6460	10.7	64.0	15		9630	15.4	79.0
			725	11		2380	2.72	28.0	12		4160	5.3	40.0	11		6460	8.07	64.0	11		9630	11.6	79.0

SERIES M

TRIPLE REDUCTION RATINGS

SIZES M01 - M04

Pm - Input Power (kW) *N2* - Output Speed (rpm)
M2 - Output Torque (Nm) *fra* - Overhung Load (kN)
i - Exact Ratio (:1)

TRIPLE REDUCTION

Column Entry	Input Speed N1 (rpm)	M0132					M0232					M0332					M0432				
		N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
5 6 .	2900	50	58.461	90	0.5	1.50	51	57.027	159	0.89	4.00	51	57.027	209	1.17	2.80	50	58.382	287	1.57	6.70
	1450	25		90	0.25	1.90	25		160	0.45	4.00	25		209	0.58	3.15	25		338	0.92	7.20
	960	16		90	0.16	1.90	17		160	0.3	4.00	17		209	0.39	3.15	16		338	0.61	7.20
	725	12		90	0.12	1.90	13		160	0.22	4.00	13		209	0.29	3.15	12		338	0.46	7.20
6 3 .	2900	45	64.453	90	0.45	1.50	46	62.872	160	0.81	4.00	46	62.872	209	1.06	2.90	45	64.290	293	1.46	7.10
	1450	22		90	0.22	1.90	23		160	0.41	4.00	23		209	0.53	3.15	23		338	0.84	7.20
	960	15		90	0.15	1.90	15		160	0.27	4.00	15		209	0.35	3.15	15		338	0.55	7.20
	725	11		90	0.11	1.90	12		160	0.2	4.00	12		209	0.26	3.15	11		338	0.42	7.20
7 1 .	2900	41	70.933	90	0.41	1.60	42	69.193	160	0.74	4.00	42	69.193	209	0.97	3.00	39	73.950	302	1.31	7.20
	1450	20		90	0.2	1.90	21		160	0.37	4.00	21		209	0.48	3.15	20		338	0.73	7.20
	960	14		90	0.13	1.90	14		160	0.24	4.00	14		209	0.32	3.15	13		338	0.48	7.20
	725	10		90	0.1	1.90	10		160	0.18	4.00	10		209	0.24	3.15	9.8		338	0.36	7.20
8 0 .	2900	35	83.104	90	0.35	1.70	36	81.066	160	0.63	4.00	36	81.066	209	0.82	3.10	36	80.397	307	1.22	7.20
	1450	17		90	0.17	1.90	18		160	0.31	4.00	18		209	0.41	3.15	18		338	0.67	7.20
	960	12		90	0.12	1.90	12		160	0.21	4.00	12		209	0.27	3.15	12		338	0.44	7.20
	725	8.7		90	0.09	1.90	8.9		160	0.16	4.00	8.9		209	0.2	3.15	9.0		338	0.33	7.20
1 0 0	2900	29	99.702	90	0.29	1.90	30	97.257	160	0.53	4.00	30	97.257	209	0.69	3.15	30	96.516	324	1.07	7.20
	1450	15		90	0.14	1.90	15		160	0.26	4.00	15		209	0.34	3.15	15		338	0.56	7.20
	960	9.6		90	0.1	1.90	9.9		160	0.17	4.00	9.9		209	0.23	3.15	9.9		338	0.37	7.20
	725	7.3		90	0.07	1.90	7.5		160	0.13	4.00	7.5		209	0.17	3.15	7.5		338	0.28	7.20
1 1 2	2900	25	116.22	90	0.25	1.90	26	113.37	160	0.45	4.00	26	113.37	209	0.59	3.15	25	115.819	338	0.93	7.20
	1450	12		90	0.12	1.90	13		160	0.23	4.00	13		209	0.29	3.15	13		338	0.47	7.20
	960	8.3		90	0.08	1.90	8.5		160	0.15	4.00	8.5		209	0.19	3.15	8.3		338	0.31	7.20
	725	6.2		90	0.06	1.90	6.4		160	0.11	4.00	6.4		209	0.15	3.15	6.3		338	0.23	7.20
1 2 5	2900	22	129.134	90	0.22	1.90	23	125.967	160	0.41	4.00	23	125.967	209	0.53	3.15	22	130.500	338	0.83	7.20
	1450	11		90	0.11	1.90	12		160	0.2	4.00	12		209	0.27	3.15	11		338	0.41	7.20
	960	7.4		90	0.07	1.90	7.6		160	0.14	4.00	7.6		209	0.18	3.15	7.4		338	0.27	7.20
	725	5.6		90	0.06	1.90	5.6		160	0.1	4.00	5.6		209	0.13	3.15	5.6		338	0.21	7.20
1 6 0	2900	19	155.506	90	0.19	1.90	19	151.692	160	0.34	4.00	19	151.692	209	0.44	3.15	19	151.706	338	0.71	7.20
	1450	9.3		90	0.09	1.90	9.6		160	0.17	4.00	10		209	0.22	3.15	9.6		338	0.36	7.20
	960	6.2		90	0.06	1.90	6.3		160	0.11	4.00	6.3		209	0.15	3.15	6.3		338	0.23	7.20
	725	4.7		90	0.05	1.90	4.8		160	0.08	4.00	4.8		209	0.11	3.15	4.8		338	0.18	7.20
1 8 0	2900	16	178.241	90	0.16	1.90	17	173.87	160	0.29	4.00	17	173.87	209	0.39	3.15	17	172.188	338	0.63	7.20
	1450	8.1		90	0.08	1.90	8.3		160	0.15	4.00	8.3		209	0.19	3.15	8.4		338	0.31	7.20
	960	5.4		90	0.05	1.90	5.5		160	0.1	4.00	5.5		209	0.13	3.15	5.6		338	0.21	7.20
	725	4.1		90	0.04	1.90	4.2		160	0.07	4.00	4.2		209	0.1	3.15	4.2		338	0.16	7.20
2 0 0	2900	14	202.567	90	0.14	1.90	15	197.599	160	0.26	4.00	15	197.599	209	0.34	3.15	15	195.75	338	0.55	7.20
	1450	7.2		90	0.07	1.90	7.3		160	0.13	4.00	7.3		209	0.17	3.15	7.7		338	0.28	7.20
	960	4.7		90	0.05	1.90	4.9		160	0.09	4.00	4.9		209	0.11	3.15	4.9		338	0.18	7.20
	725	3.6		90	0.04	1.90	3.7		160	0.06	4.00	3.7		209	0.09	3.15	3.7		338	0.14	7.20

SERIES M

TRIPLE REDUCTION RATINGS

SIZES M05 - M08

P_m - Input Power (kW)
M₂ - Output Torque (Nm)
i - Exact Ratio (:1)

N₂ - Output Speed (rpm)
fra - Overhung Load (kN)

TRIPLE REDUCTION

Column Entry	Input Speed N1 (rpm)	M0532					M0632					M0732					M0832				
		N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6 7 8	2900	50	58.382	443	2.42	4.20						49	58.950	640	3.47	4.50	48	60.330	1300	6.94	9.25
	1450	25		450	1.22	7.20						25		754	2.03	8.10	24		1600	4.23	16.20
	960	16		450	0.81	7.20						16		865	1.54	9.20	16		1700	2.96	16.20
	725	12		450	0.61	7.20						12		868	1.17	9.20	12		1700	2.23	16.20
6 3 .	2900	45	64.290	431	2.14	4.50	40	72.282	549	2.42	7.20	46	62.834	649	3.3	4.65	44	66.02	1340	6.5	9.50
	1450	23		450	1.11	7.20	20		626	1.38	7.20	23		770	1.95	9.20	22		1650	3.97	16.20
	960	15		450	0.74	7.20	13		626	0.91	7.20	15		868	1.45	9.20	15		1700	2.71	16.20
	725	11		450	0.56	7.20	10		626	0.69	7.20	12		868	1.09	9.20	11		1700	2.04	16.20
7 1 .	2900	39	73.950	443	1.91	5.00	36	79.598	534	2.14	7.20	39	74.467	673	2.88	5.10	39	74.691	1390	5.96	10.00
	1450	20		450	0.97	7.20	18		623	1.24	7.20	19		815	1.74	9.20	19		1700	3.62	16.20
	960	13		450	0.64	7.20	12		626	0.82	7.20	13		868	1.22	9.20	13		1700	2.39	16.20
	725	10		450	0.48	7.20	9.1		626	0.62	7.20	10		868	0.92	9.20	10		1700	1.8	16.20
8 0 .	2900	36	80.397	450	1.78	5.60	32	91.557	549	1.91	7.20	36	79.507	682	2.74	6.30	34	84.31	1440	5.47	12.30
	1450	18		450	0.89	7.20	16		626	1.09	7.20	18		833	1.67	9.20	17		1700	3.21	16.20
	960	12		450	0.59	7.20	10.4		626	0.72	7.20	12		868	1.15	9.20	11		1700	2.12	16.20
	725	9.0		450	0.44	7.20	7.8		626	0.54	7.20	9		868	0.87	9.20	9		1700	1.6	16.20
1 0 0	2900	30	96.516	450	1.49	6.30	29	99.54	558	1.79	7.20	29	98.661	714	2.31	7.40	28	102.204	1520	4.78	14.00
	1450	15		450	0.74	7.20	15		626	1	7.20	15		868	1.4	9.20	14		1700	2.65	16.20
	960	9.9		450	0.49	7.20	9.6		626	0.66	7.20	10		868	0.93	9.20	9		1700	1.75	16.20
	725	7.5		450	0.37	7.20	7.3		626	0.5	7.20	7		868	0.7	9.20	7		1700	1.32	16.20
1 1 2	2900	25	115.819	450	1.24	7.20	24	119.496	585	1.56	7.20	25	116.342	751	2.06	9.20	24	119.188	1600	4.29	16.20
	1450	13		450	0.62	7.20	12		626	0.83	7.20	12		868	1.19	9.20	12		1700	2.27	16.20
	960	8.3		450	0.41	7.20	8.0		626	0.55	7.20	8		868	0.79	9.20	8		1700	1.5	16.20
	725	6.3		450	0.31	7.20	6.1		626	0.42	7.20	6		874	0.6	9.20	6		1700	1.13	16.20
1 2 5	2900	22	130.500	450	1.1	7.20	20	143.395	613	1.37	7.20	23	127.392	774	1.94	9.20	22	130.924	1640	4.02	16.20
	1450	11		450	0.55	7.20	10.1		626	0.7	7.20	11		868	1.09	9.20	11		1700	2.07	16.20
	960	7.4		450	0.36	7.20	6.7		626	0.46	7.20	8		868	0.72	9.20	7		1700	1.37	16.20
	725	5.6		450	0.28	7.20	5.1		626	0.35	7.20	6		883	0.55	9.20	6		1700	1.03	16.20
1 6 0	2900	19	151.706	450	0.95	7.20	18	161.571	626	1.24	7.20	19	156.123	828	1.7	9.20	18	160.446	1700	3.39	16.20
	1450	9.9		450	0.47	7.20	9.0		626	0.62	7.20	9		868	0.89	9.20	9		1700	1.69	16.20
	960	6.3		450	0.31	7.20	5.9		626	0.41	7.20	6		875	0.59	9.20	6		1700	1.12	16.20
	725	4.8		450	0.24	7.20	4.5		626	0.31	7.20	5		888	0.45	9.20	5		1720	0.85	16.20
1 8 0	2900	17	172.188	450	0.83	7.20	15	187.827	626	1.06	7.20	17	174.012	858	1.58	9.20	17	175.207	1700	3.1	16.20
	1450	8.4		450	0.42	7.20	7.7		626	0.53	7.20	8		868	0.8	9.20	8		1700	1.55	16.20
	960	5.6		450	0.28	7.20	5.1		626	0.35	7.20	6		886	0.54	9.20	5		1700	1.02	16.20
	725	4.2		450	0.21	7.20	3.9		626	0.26	7.20	4		888	0.41	9.20	4		1730	0.79	16.20
2 0 0	2900	15	195.75	450	0.74	7.20	14	213.185	626	0.94	7.20	15	195.154	868	1.43	9.20	14	201.754	1700	2.7	16.20
	1450	7.4		450	0.37	7.20	6.8		626	0.47	7.20	7		868	0.71	9.20	7		1700	1.35	16.20
	960	4.9		450	0.24	7.20	4.5		626	0.31	7.20	5		888	0.48	9.20	5		1710	0.9	16.20
	725	3.7		450	0.18	7.20	3.4		626	0.23	7.20	4		888	0.36	9.20	4		1750	0.69	16.20
2 2 5	2900						12	242.36	626	0.83	7.20										
	1450						6.0		626	0.41	7.20										
	960						4.0		626	0.27	7.20										
	725						3.0		626	0.21	7.20										

SERIES M

TRIPLE REDUCTION RATINGS

SIZES M09 - M14

P_m - Input Power (kW) *N₂* - Output Speed (rpm)
M₂ - Output Torque (Nm) *fra* - Overhung Load (kN)
i - Exact Ratio (:1)

TRIPLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0931					M1031					M1331					M1431				
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6	7	8	2900										73		4380	35	45.0	70		7520	58.1	52.0	
4	0	.	1450										36	39.93	5530	21.9	60.0	35	41.36	9740	37.5	79.0	
			960								24	5940	15.6		64.0	23	10500	26.6		79.0			
			725								18	6200	12.3		64.0	18	11100	21.3		79.0			
4	5	.	2900										66	44.18	5360	38.9	45.0	60	48.21	9430	62.7	52.0	
			1450										33		6170	22.2	60.0	30		11000	36.4	79.0	
			960									22	6350		15.1	64.0	20	11000		24.1	79.0		
			725									16	6350		11.4	64.0	15	11000		18.2	79.0		
5	0	.	2900										58	50.02	5460	35	51.0	53	54.75	9930	58.1	60.0	
			1450										29		6310	20.1	64.0	26		11000	32.1	79.0	
			960									19	6350		13.4	64.0	18	11000		21.2	79.0		
			725									14	6350		10.1	64.0	13	11000		16	79.0		
5	6	.	2900	48	59.846	2100	11.2	17.0	48	60.229	3380	17.9	23.0	51	56.932	5270	29.6	51.0	49	59.456	8680	46.7	60.0
			1450	24		2590	6.84	28.0	24		3770	9.94	40.0	25		6190	17.3	64.0	24		10500	28.1	79.0
			960	16		2640	4.62	28.0	16		3770	6.57	40.0	17		6200	11.4	64.0	16		11100	19.7	79.0
			725	12		2640	3.49	28.0	12		3770	4.95	40.0	13		6200	8.63	64.0	12		11100	14.8	79.0
6	3	.	2900	44	66.489	2170	10.4	22.4	43	66.928	3490	16.6	28.0	45	64.174	5380	26.8	56.0	44	65.549	9020	44	70.0
			1450	22		2640	6.29	28.0	22		3770	8.95	40.0	23		6200	15.3	64.0	22		10700	26	79.0
			960	14		2640	4.16	28.0	14		3770	5.91	40.0	15		6200	10.1	64.0	15		11100	17.8	79.0
			725	11		2640	3.14	28.0	11		3770	4.46	40.0	11		6200	7.66	64.0	11		11100	13.5	79.0
7	1	.	2900	39	74.265	2350	10.1	22.4	41	71.167	3640	16.4	28.0	41	71.321	5920	26.6	56.0	37	78.698	11000	44.8	70.0
			1450	20		2860	6.1	28.0	20		4410	9.85	40.0	20		6350	14.2	64.0	18		11000	22.3	79.0
			960	13		2860	4.03	28.0	13		4410	6.51	40.0	13		6350	9.39	64.0	12		11000	14.8	79.0
			725	10		2860	3.04	28.0	10		4410	4.91	40.0	10		6350	7.09	64.0	9		11000	11.1	79.0
8	0	.	2900	35	82.508	2420	9.38	26.2	37	79.082	3760	15.2	34.0	36	80.394	6060	24.1	60.0	33	86.763	11000	40.7	79.0
			1450	18		2860	5.49	28.0	18		4410	8.87	40.0	18		6350	12.6	64.0	17		11000	20.3	79.0
			960	12		2860	3.63	28.0	12		4410	5.86	40.0	12		6350	8.33	64.0	11		11000	13.4	79.0
			725	9		2860	2.74	28.0	9		4410	4.42	40.0	9		6350	6.29	64.0	8		11000	10.1	79.0
9	0	.	2900	31	93.918	2400	8.15	26.2	30	95.441	3770	12.6	34.0	32	90.751	5930	20.9	60.0	31	94.354	10100	34.4	79.0
			1450	15		2640	4.46	28.0	15		3770	6.27	40.0	16		6200	10.9	64.0	15		11100	18.8	79.0
			960	10		2640	2.95	28.0	10		3770	4.15	40.0	11		6200	7.21	64.0	10		11100	12.4	79.0
			725	8		2640	2.23	28.0	8		3770	3.13	40.0	8		6200	5.44	64.0	8		11100	9.39	79.0
1	0	0	2900	28	103.683	2480	7.6	28.0	26	109.969	3770	10.9	40.0	29	101.074	6050	19.2	64.0	28	102.226	10300	32.2	79.0
			1450	14		2640	4.04	28.0	13		3770	5.45	40.0	14		6200	9.79	64.0	14		11100	17.3	79.0
			960	9		2640	2.67	28.0	9		3770	3.6	40.0	9		6200	6.48	64.0	9		11100	11.5	79.0
			725	7		2640	2.02	28.0	7		3770	2.72	40.0	7		6200	4.89	64.0	7		11100	8.66	79.0
1	1	2	2900	25	116.546	2690	7.36	28.0	26	112.773	4180	11.8	40.0	26	113.688	6350	18	64.0	23	124.89	11000	28.3	79.0
			1450	12		2860	3.89	28.0	13		4410	6.22	40.0	13		6350	8.95	64.0	12		11000	14.1	79.0
			960	8		2860	2.57	28.0	9		4410	4.11	40.0	8		6350	5.92	64.0	8		11000	9.34	79.0
			725	6		2860	1.94	28.0	6		4410	3.1	40.0	6		6350	4.47	64.0	6		11000	7.05	79.0
1	2	5	2900	23	128.664	2770	6.86	28.0	22	129.94	4360	10.7	40.0	23	126.62	6350	16.1	64.0	21	135.311	11000	26.1	79.0
			1450	11		2860	3.52	28.0	11		4410	5.4	40.0	11		6350	8.04	64.0	11		11000	13	79.0
			960	7		2860	2.33	28.0	7		4410	3.57	40.0	8		6350	5.32	64.0	7		11000	8.61	79.0
			725	6		2860	1.76	28.0	6		4410	2.7	40.0	6		6350	4.02	64.0	5		11000	6.5	79.0
1	4	0	2900	20	145.196	2470	5.46	28.0	21	135.882	4160	9.82	40.0	21	139.073	6460	15	64.0	20	142.663	10100	22.9	79.0
			1450	10		2470	2.71	28.0	11		4160	4.89	40.0	10		6460	7.47	64.0	10		10100	11.4	79.0
			960	7		2470	1.79	28.0	7		4170	3.23	40.0	7		6460	4.94	64.0	7		10100	7.54	79.0
			725	5		2470	1.35	28.0	5		4170	2.44	40.0	5		6460	3.73	64.0	5		10100	5.69	79.0
1	6	0	2900	18	160.292	2470	4.94	28.0	19	156.567	4160	8.53	40.0	19	154.892	6460	13.5	64.0	19	154.566	10100	21.1	79.0
			1450	9		2470	2.46	28.0	9		4170	4.25	40.0	9		6460	6.71	64.0	9		10100	10.5	79.0
			960	6		2470	1.62	28.0	6		4170	2.81	40.0	6		6460	4.44	64.0	6		10100	6.95	79.0
			725	5		2480	1.23	28.0	5		4200	2.13	40.0	5		6460	3.35	64.0	5		10100	5.25	79.0
1	8	0	2900	16	176.998	2860	5.15	28.0	17	175.738	4410	8.03	40.0	17	173.374	6350	11.7	64.0	16	185.558	11000	19	79.0
			1450	8		2860	2.57	28.0	8		4410	4	40.0	8		6350	5.86	64.0	8		11000	9.49	79.0
			960	5		2860	1.7	28.0	5		4410	2.65	40.0	6		6350	3.88	64.0	5		11000	6.28	79.0
			725	4		2860	1.28	28.0	4		4410	2	40.0	4		6350	2.93	64.0	4		11000	4.74	79.0
2	0	0	2900	15	199.029	2860	4.59	28.0	15	188.81	4410	7.48	40.0	16	184.459	6350	11	64.0	14	208.15	11000	17	79.0
			1450	7		2860	2.29	28.0	8		4410	3.73	40.0	8		6350	5.5	64.0	7		11000	8.48	79.0
			960	5		2860	1.51	28.0	5		4410	2.47	40.0	5		6350	3.64	64.0	5		11000	5.61	79.0
			725	4		2860	1.14	28.0	4		4410	1.86	40.0	4		6350	2.75	64.0	3		11000	4.23	79.0
2	2	5	2900	13	220.508	2470	3.59	28.0	14	211.75	4160	6.31	40.0	14	212.086	6460	9.8	64.0	14	211.965	10100	15.4	79.0
			1450	7		2470	1.79	28.0	7		4170	3.15	40.0	7		6460	4.89	64.0	7		10100	7.66	79.0
			960	4		2480	1.19	28.0	5		4210	2.1	40.0	5		6460	3.23	64.0	5		10100	5.07	79.0
			725	3		2480	0.89	28.0	3		4270	1.61	40.0	3		6460	2.44	64.0	3		10100	3.83	79.0
2	5	0	2900	12	247.956	2470	3.2	28															

SERIES M

QUADRUPLE REDUCTION RATINGS

SIZES M03 - M07

P_m - Input Power (kW)
 M_2 - Output Torque (Nm)
 i - Exact Ratio (:1)
 N_2 - Output Speed (rpm)
 f_{ra} - Overhung Load (kN)

QUADRUPLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0342					M0442					M0542					M0642					M0742																																										
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)																																						
2	2	5	2900	12.34	235	210	0.29	3.15	12.46	232.8	340	0.467	7.2	12.46	232.8	450	0.62	7.2				7.2			12.66	865	1.21	9.2																																						
																													210	0.143	3.15	6.228	340	0.233	7.2	6.228	450	0.309	7.2		7.2	6.332	229	865	0.604	9.2																				
																																															210	0.095	3.15	4.124	340	0.155	7.2	4.124	450	0.205	7.2		7.2	4.192	865	0.4	9.2			
																																																																210	0.071	3.15
2	5	0	2900	11.10	261.4	210	0.26	3.15	11.13	260.5	340	0.417	7.2	11.13	260.5	450	0.55	7.2				7.2	11.17		259.7	865	0.53	9.2																																						
																													210	0.128	3.15	5.567	340	0.209	7.2	5.567	450	0.276	7.2		7.2	5.584	865	0.532	9.2																					
																																														210	0.085	3.15	3.686	340	0.138	7.2	3.686	450	0.183	7.2		7.2	3.697	865	0.532	9.2				
																																																															210	0.064	3.15	2.764
2	8	0	2900	10.08	287.8	210	0.23	3.15	10.45	277.6	340	0.391	7.2	10.45	277.6	450	0.52	7.2	10.63	272.9	620	0.73	7.2	10.12	286.4	865	0.97	9.2																																						
																													210	0.117	3.15	5.223	340	0.196	7.2	5.223	450	0.259	7.2	5.313	620	0.363	7.2	5.062	865	0.483	9.2																			
																																																210	0.077	3.15	3.458	340	0.13	7.2	3.458	450	0.172	7.2	3.518	620	0.24	7.2	3.352	865	0.32	9.2
3	0	0	2900	9.14	317.3	210	0.212	3.15	9.486	305.7	340	0.355	7.2	9.486	305.7	450	0.47	7.2	9.238	313.9	620	0.63	7.2	9.194	315.4	865	0.88	9.2																																						
																													210	0.106	3.15	4.743	340	0.178	7.2	4.743	450	0.235	7.2	4.619	620	0.316	7.2	4.597	865	0.438	9.2																			
																																																210	0.07	3.15	3.14	340	0.118	7.2	3.140	450	0.156	7.2	3.058	620	0.209	7.2	3.044	865	0.29	9.2
3	6	0	2900	7.94	365	210	0.184	3.15	8.004	362.3	340	0.3	7.2	8.004	362.3	450	0.40	7.2	7.943	365.1	620	0.54	7.2	8.028	361.2	865	0.77	9.2																																						
																													210	0.092	3.15	4.002	340	0.15	7.2	4.002	450	0.199	7.2	3.971	620	0.271	7.2	4.014	865	0.383	9.2																			
																																																210	0.061	3.15	2.65	340	0.099	7.2	2.650	450	0.131	7.2	2.629	620	0.18	7.2	2.658	865	0.253	9.2
4	0	0	2900	7.22	401.7	210	0.167	3.15	6.959	416.8	340	0.261	7.2	6.959	416.8	450	0.35	7.2	7.306	396.9	620	0.50	7.2	6.980	415.5	865	0.67	9.2																																						
																													210	0.084	3.15	3.479	340	0.13	7.2	3.479	450	0.173	7.2	3.653	620	0.25	7.2	3.490	865	0.333	9.2																			
																																																210	0.055	3.15	2.304	340	0.086	7.2	2.304	450	0.114	7.2	2.419	620	0.165	7.2	2.311	865	0.22	9.2
4	5	0	2900	6.64	436.7	210	0.154	3.15	6.517	445	340	0.244	7.2	6.517	445	450	0.32	7.2	6.530	444.1	625	0.45	7.2	6.173	469.8	865	0.59	9.2																																						
																													210	0.077	3.15	3.259	340	0.122	7.2	3.259	450	0.162	7.2	3.265	625	0.225	7.2	3.087	865	0.294	9.2																			
																																																210	0.051	3.15	2.157	340	0.081	7.2	2.157	450	0.107	7.2	2.162	625	0.149	7.2	2.044	865	0.195	9.2
5	0	0	2900	5.67	511.7	210	0.131	3.15	5.995	483.8	340	0.225	7.2	5.995	483.8	450	0.297	7.2	5.440	533.1	625	0.375	7.2	5.678	510.7	865	0.541	9.2																																						
																													210	0.066	3.15	2.997	340	0.112	7.2	2.997	450	0.149	7.2	2.820	625	0.187	7.2	2.839	865	0.271	9.2																			
																																																210	0.043	3.15	1.984	340	0.074	7.2	1.984	450	0.098	7.2	1.871	625	0.124	7.2	1.880	865	0.179	9.2
6	5	0	2900	4.72	614.2	210	0.109	3.15	4.831	600.3	340	0.181	7.2	4.831	600.3	450	0.240	7.2	5.104	568.2	625	0.35	7.2	4.898	592.1	865	0.47	9.2																																						
																													210	0.055	3.15	2.415	340	0.091	7.2	2.415	450	0.12	7.2	2.552	625	0.176	7.2	2.449	865	0.233	9.2																			
																																																210	0.036	3.15	1.599	340	0.06	7.2	1.599	450	0.079	7.2	1.689	625	0.116	7.2	1.621	865	0.155	9.2
7	3	0	2900	3.94	736.9	210	0.091	3.15	4.024	720.7	340	0.151	7.2	4.024	720.7	450	0.200	7.2	4.253	681.9	625	0.29	7.2	4.080	710.8	865	0.39	9.2																																						
																													210	0.046	3.15	2.012	340	0.075	7.2	2.012	450	0.1	7.2	2.126	625	0.146	7.2	2.040	865	0.194	9.2																			
																																																210	0.03	3.15	1.332	340	0.05	7.2	1.332	450	0.066	7.2	1.408	625	0.097	7.2	1.351	865	0.129	9.2
8	6	0	2900	3.28	884.3	210	0.076	3.15	3.413	849.8	340	0.128	7.2	3.413	849.8	450	0.169	7.2	3.589	808.1	625	0.247	7.2	3.420	847.8	865	0.33	9.2																																						
																													210	0.038	3.15	1.706	340	0.064	7.2	1.706	450	0.085	7.2	1.794	625	0.124	7.2	1.710	865	0.163	9.2																			
																																																210	0.025	3.15	1.13	340	0.042	7.2	1.130	450	0.056	7.2	1.188	625	0.082	7.2	1.132	865	0.108	9.2
1	0	C	2900	2.81	1031	210	0.065	3.15	2.844	1020	340	0.107	7.2	2.844	1020	450	0.141	7.2	2.983	972.2	625	0.205	7.2	2.850	1017	865	0.27	9.2																																						
																													210	0.033	3.15	1.422	340	0.053	7.2	1.422	450	0.071	7.2	1.491	625	0.103	7.2	1.425	865	0.136	9.2																			
																																																210	0.022	3.15	0.941	340	0.035	7.2	0.941	450	0.047	7.2	0.987	625	0.068	7.2	0.944	865	0.09	9.2
1	1	C	2900	2.50	1161	210	0.058	3.15	2.597	1117	340	0.097	7.2	2.597	1117	450	0.129	7.2	2.566	1130	625	0.177	7.2	2.603	1114	865	0.248	9.2																																						
																													210	0.029	3.15	1.299	340	0.049	7.2	1.299	450	0.064																												

SERIES M

QUADRUPLE REDUCTION RATINGS

SIZES M08 - M14

P_m - Input Power (kW)
 M_2 - Output Torque (Nm)
 i - Exact Ratio (:1)

N_2 - Output Speed (rpm)
 f_{ra} - Overhung Load (kN)

QUADRUPLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0842				M0941				M1041				M1341				M1441			
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6	7	8																					
2	2	5																					
2	5	0																					
2	8	0																					
3	0	0																					
3	6	0																					
4	0	0																					
4	5	0																					
5	0	0																					
6	5	0																					
7	3	0																					
8	6	0																					
1	0	C																					
1	1	C																					
1	3	C																					
1	5	C																					
1	8	C																					
2	0	C																					
2	4	C																					
2	7	C																					

SERIES M

QUINTUPLE REDUCTION RATINGS

SIZES M03 - M07

Pm - Input Power (kW)
M2 - Output Torque (Nm)
i - Exact Ratio (:1)
N2 - Output Speed (rpm)
fra - Overhung Load (kN)

QUINTUPLE REDUCTION

Column Entry			Input Speed N1 (rpm)	M0352				M0452				M0552				M0652				M0752								
				N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
6	7	8																										
2	7	C	2900	1.102	2632	210	0.026	3.15	1.092	2655	340	0.041	7.20	1.092	2655	450	0.054	7.20	1.095	2649	625	0.075	7.20	1.107	2619	865	0.106	9.20
			1450	0.551		210	0.013	3.15	0.546		340	0.021	7.20	0.546		450	0.027	7.20	0.547		625	0.038	7.20	0.554		865	0.053	9.20
			960	0.365		210	0.009	3.15	0.362		340	0.014	7.20	0.362		450	0.018	7.20	0.362		625	0.025	7.20	0.367		865	0.035	9.20
			725	0.274		210	0.006	3.15	0.271		340	0.010	7.20	0.271		450	0.014	7.20	0.272		625	0.019	7.20	0.275		865	0.026	9.20
3	2	C	2900	0.945	3068	210	0.022	3.15	0.937	3095	340	0.035	7.20	0.937	3095	450	0.046	7.20	0.939	3088	625	0.065	7.20	0.95	3053	865	0.046	9.20
			1450	0.473		210	0.011	3.15	0.468		340	0.018	7.20	0.468		450	0.023	7.20	0.47		625	0.033	7.20	0.475		865	0.046	9.20
			960	0.313		210	0.007	3.15	0.310		340	0.012	7.20	0.31		450	0.016	7.20	0.311		625	0.022	7.20	0.314		865	0.046	9.20
			725	0.235		210	0.005	3.15	0.233		340	0.009	7.20	0.233		450	0.012	7.20	0.233		625	0.016	7.20	0.236		865	0.046	9.20
3	6	C	2900	0.788	3681	210	0.018	3.15	0.795	3650	340	0.030	7.20	0.795	3650	450	0.039	7.20	0.757	3832	625	0.052	7.20	0.796	3641	865	0.076	9.20
			1450	0.394		210	0.009	3.15	0.397		340	0.015	7.20	0.397		450	0.02	7.20	0.378		625	0.026	7.20	0.398		865	0.038	9.20
			960	0.261		210	0.006	3.15	0.263		340	0.010	7.20	0.263		450	0.013	7.20	0.251		625	0.017	7.20	0.264		865	0.025	9.20
			725	0.196		210	0.005	3.15	0.197		340	0.007	7.20	0.197		450	0.01	7.20	0.188		625	0.013	7.20	0.198		865	0.019	9.20
4	0	C	2900	0.709	4091	210	0.016	3.15	0.715	4055	340	0.027	7.20	0.715	4055	450	0.035	7.20	0.681	4258	625	0.047	7.20	0.717	4046	865	0.068	9.20
			1450	0.354		210	0.008	3.15	0.358		340	0.014	7.20	0.358		450	0.018	7.20	0.341		625	0.024	7.20	0.358		865	0.035	9.20
			960	0.235		210	0.005	3.15	0.237		340	0.009	7.20	0.237		450	0.012	7.20	0.225		625	0.016	7.20	0.237		865	0.023	9.20
			725	0.176		210	0.004	3.15	0.178		340	0.007	7.20	0.178		450	0.009	7.20	0.169		625	0.012	7.20	0.178		865	0.017	9.20
4	6	C	2900	0.629	4609	210	0.015	3.15	0.653	4440	340	0.024	7.20	0.653	4440	450	0.032	7.20	0.578	5021	625	0.04	7.20	0.655	4431	865	0.062	9.20
			1450	0.315		210	0.007	3.15	0.327		340	0.012	7.20	0.327		450	0.016	7.20	0.289		625	0.02	7.20	0.327		865	0.032	9.20
			960	0.208		210	0.005	3.15	0.216		340	0.008	7.20	0.216		450	0.011	7.20	0.191		625	0.013	7.20	0.217		865	0.021	9.20
			725	0.156		210	0.004	3.15	0.162		340	0.006	7.20	0.162		450	0.008	7.20	0.143		625	0.01	7.20	0.163		865	0.016	9.20
5	5	C	2900	0.522	5550	210	0.012	3.15	0.542	5347	340	0.020	7.20	0.542	5347	450	0.027	7.20	0.48	6046	625	0.033	7.20	0.544	5335	865	0.052	9.20
			1450	0.261		210	0.006	3.15	0.271		340	0.010	7.20	0.271		450	0.014	7.20	0.24		625	0.017	7.20	0.272		865	0.026	9.20
			960	0.173		210	0.004	3.15	0.180		340	0.007	7.20	0.18		450	0.009	7.20	0.159		625	0.011	7.20	0.18		865	0.017	9.20
			725	0.13		210	0.003	3.15	0.135		340	0.005	7.20	0.135		450	0.007	7.20	0.119		625	0.008	7.20	0.135		865	0.013	9.20
6	5	C	2900	0.449	6452	203	0.01	3.15	0.443	6553	340	0.017	7.20	0.443	6553	450	0.022	7.20	0.438	6620	625	0.03	7.20	0.453	6403	865	0.043	9.20
			1450	0.225		203	0.005	3.15	0.221		340	0.008	7.20	0.221		450	0.011	7.20	0.219		625	0.015	7.20	0.226		865	0.022	9.20
			960	0.149		203	0.003	3.15	0.146		340	0.006	7.20	0.146		450	0.007	7.20	0.145		625	0.01	7.20	0.15		865	0.014	9.20
			725	0.112		203	0.003	3.15	0.110		340	0.004	7.20	0.11		450	0.006	7.20	0.109		625	0.008	7.20	0.112		865	0.011	9.20
7	4	C	2900	0.392	7396	203	0.009	3.15	0.386	7511	340	0.014	7.20	0.386	7511	450	0.019	7.20	0.382	7588	625	0.026	7.20	0.395	7339	865	0.038	9.20
			1450	0.196		203	0.004	3.15	0.193		340	0.007	7.20	0.193		450	0.01	7.20	0.191		625	0.013	7.20	0.198		865	0.019	9.20
			960	0.13		203	0.003	3.15	0.128		340	0.005	7.20	0.128		450	0.006	7.20	0.127		625	0.009	7.20	0.131		865	0.013	9.20
			725	0.097		203	0.002	3.15	0.096		340	0.004	7.20	0.096		450	0.005	7.20	0.095		625	0.007	7.20	0.098		865	0.009	9.20
8	4	C	2900	0.345	8394	203	0.008	3.15	0.346	8372	340	0.013	7.20	0.346	8372	380	0.015	7.20	0.336	8624	625	0.023	7.20	0.343	8443	725	0.027	9.20
			1450	0.173		203	0.004	3.15	0.173		340	0.007	7.20	0.173		380	0.007	7.20	0.168		625	0.012	7.20	0.172		725	0.014	9.20
			960	0.114		203	0.003	3.15	0.115		340	0.004	7.20	0.115		380	0.005	7.20	0.111		625	0.008	7.20	0.114		725	0.009	9.20
			725	0.086		203	0.002	3.15	0.086		340	0.003	7.20	0.086		380	0.004	7.20	0.083		625	0.006	7.20	0.085		725	0.007	9.20
9	5	C	2900	0.304	9540	203	0.007	3.15	0.305	9514	340	0.011	7.20	0.305	9514	380	0.013	7.20	0.312	9300	620	0.021	7.20	0.302	9596	725	0.024	9.20
			1450	0.152		203	0.003	3.15	0.152		340	0.006	7.20	0.152		380	0.006	7.20	0.156		620	0.011	7.20	0.151		725	0.012	9.20
			960	0.101		203	0.002	3.15	0.101		340	0.004	7.20	0.101		380	0.004	7.20	0.103		620	0.007	7.20	0.1		725	0.008	9.20
			725	0.075		203	0.002	3.15	0.076		340	0.003	7.20	0.076		380	0.003	7.20	0.077		620	0.005	7.20	0.075		725	0.006	9.20
1	0	K	2900	0.267	10845	203	0.006	3.15	0.272	10670	270	0.008	7.20	0.272	10670	270	0.008	7.20	0.274	10569	620	0.019	7.20	0.272	10662	725	0.022	9.20
			1450	0.134		203	0.003	3.15	0.136		270	0.004	7.20	0.136		270	0.004	7.20	0.137		620	0.009	7.20	0.136		725	0.011	9.20
			960	0.089		203	0.002	3.15	0.090		270	0.003	7.20	0.09		270	0.003	7.20	0.091		620	0.006	7.20	0.09		725	0.007	9.20
			725	0.066		203	0.002	3.15	0.067		270	0.002	7.20	0.067		270	0.002	7.20	0.068		620	0.005	7.20	0.068		725	0.005	9.20

SERIES M

QUINTUPLE REDUCTION RATINGS

SIZES M08 - M14

Pm - Input Power (kW)
M2 - Output Torque (Nm)
i - Exact Ratio (:1)

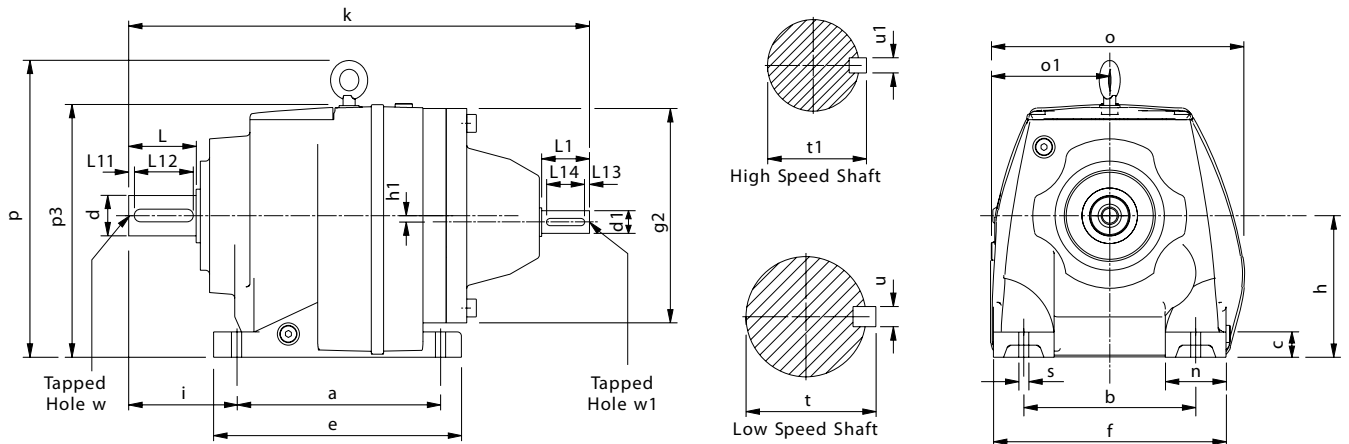
N2 - Output Speed (rpm)
fra - Overhung Load (kN)

QUINTUPLE REDUCTION

Column Entry	Input Speed N1 (rpm)	M0852					M0951					M1051					M1351					M1451				
		N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)	N2 (rpm)	i (:1)	M2 (Nm)	Pm (kW)	fra (kN)
2 7 C	2900	1.063		1700	0.199	16.20	1.116		2860	0.352	28.0	1.186		4410	0.576	40.0	1.144		6350	0.801	64.0	1.057		10700	1.246	79.0
	1450	0.531	2728	1700	0.101	16.20	0.558	2598	2860	0.178	28.0	0.593	2446	4410	0.291	40.0	0.572	2536	6350	0.405	64.0	0.528	2744	10700	0.63	79.0
	960	0.352		1700	0.07	16.20	0.370		2860	0.12	28.0	0.393		4410	0.19	40.0	0.379		6350	0.27	64.0	0.350		10700	0.42	79.0
	725	0.264		1700	0.05	16.20	0.277		2860	0.088	28.0	0.294		4410	0.145	40.0	0.284		6350	0.201	64.0	0.262		10700	0.313	79.0
3 2 C	2900	0.886		1700	0.166	16.20	0.93		2860	0.293	28.0	0.956		4410	0.464	40.0	0.922		6350	0.645	64.0	0.852		10700	1.005	79.0
	1450	0.443	3274	1700	0.084	16.20	0.465	3119	2860	0.148	28.0	0.478	3035	4410	0.235	40.0	0.461	3146	6350	0.326	64.0	0.426	3405	10700	0.508	79.0
	960	0.293		1700	0.056	16.20	0.308		2860	0.10	28.0	0.316		4410	0.16	40.0	0.305		6350	0.22	64.0	0.282		10700	0.34	79.0
	725	0.22		1700	0.042	16.20	0.231		2860	0.074	28.0	0.237		4410	0.117	40.0	0.229		6350	0.162	64.0	0.211		10700	0.252	79.0
3 6 C	2900	0.76		1700	0.142	16.20	0.775		2860	0.244	28.0	0.81		4410	0.394	40.0	0.782		6350	0.547	64.0	0.722		10700	0.852	79.0
	1450	0.38	3818	1700	0.072	16.20	0.387	3742	2860	0.123	28.0	0.405	3579	4410	0.199	40.0	0.391	3710	6350	0.276	64.0	0.361	4015	10700	0.43	79.0
	960	0.251		1700	0.048	16.20	0.257		2860	0.082	28.0	0.268		4410	0.13	40.0	0.259		6350	0.18	64.0	0.239		10700	0.29	79.0
	725	0.189		1700	0.036	16.20	0.192		2860	0.061	28.0	0.201		4410	0.099	40.0	0.194		6350	0.137	64.0	0.179		10700	0.214	79.0
4 0 C	2900	0.674		1700	0.126	16.20	0.688		2860	0.217	28.0	0.74		4410	0.36	40.0	0.714		6350	0.5	64.0	0.66		10700	0.778	79.0
	1450	0.337	4302	1700	0.064	16.20	0.344	4216	2860	0.11	28.0	0.37	3919	4410	0.182	40.0	0.357	4062	6350	0.252	64.0	0.33	4396	10700	0.393	79.0
	960	0.223		1700	0.042	16.20	0.228		2860	0.073	28.0	0.245		4410	0.12	40.0	0.236		6350	0.17	64.0	0.218		10700	0.26	79.0
	725	0.167		1700	0.032	16.20	0.171		2860	0.054	28.0	0.184		4410	0.09	40.0	0.177		6350	0.125	64.0	0.164		10700	0.195	79.0
4 6 C	2900	0.614		1700	0.115	16.20	0.623		2860	0.196	28.0	0.642		4410	0.312	40.0	0.641		6350	0.449	64.0	0.584		10100	0.65	79.0
	1450	0.307	4726	1700	0.058	16.20	0.311	4655	2860	0.099	28.0	0.321	4515	4410	0.158	40.0	0.32	4525	6350	0.227	64.0	0.292	4969	10100	0.328	79.0
	960	0.203		1700	0.038	16.20	0.206		2860	0.066	28.0	0.213		4410	0.10	40.0	0.212		6350	0.15	64.0	0.193		10100	0.22	79.0
	725	0.152		1700	0.029	16.20	0.155		2860	0.049	28.0	0.159		4410	0.078	40.0	0.159		6350	0.113	64.0	0.145		10100	0.163	79.0
5 5 C	2900	0.528		1700	0.099	16.20	0.536		2860	0.169	28.0	0.524		4410	0.255	40.0	0.523		6350	0.366	64.0	0.533		10100	0.593	79.0
	1450	0.264	5494	1700	0.05	16.20	0.268	5411	2860	0.085	28.0	0.262	5533	4410	0.129	40.0	0.261	5545	6350	0.185	64.0	0.267	5441	10100	0.3	79.0
	960	0.175		1700	0.033	16.20	0.177		2860	0.057	28.0	0.174		4410	0.085	40.0	0.173		6350	0.12	64.0	0.176		10100	0.20	79.0
	725	0.131		1700	0.025	16.20	0.133		2860	0.042	28.0	0.13		4410	0.064	40.0	0.13		6350	0.092	64.0	0.132		10100	0.149	79.0
6 5 C	2900	0.431		1700	0.081	16.20	0.43		2480	0.118	28.0	0.475		4260	0.223	40.0	0.428		6350	0.299	64.0	0.435		10100	0.484	79.0
	1450	0.215	6733	1700	0.041	16.20	0.215	6742	2480	0.059	28.0	0.237	6106	4260	0.113	40.0	0.214	6783	6350	0.151	64.0	0.217	6668	10100	0.245	79.0
	960	0.143		1700	0.027	16.20	0.142		2480	0.039	28.0	0.157		4260	0.075	40.0	0.142		6350	0.10	64.0	0.144		10100	0.16	79.0
	725	0.107		1700	0.02	16.20	0.107		2480	0.03	28.0	0.118		4260	0.056	40.0	0.106		6350	0.075	64.0	0.108		10100	0.121	79.0
7 4 C	2900	0.38		1700	0.071	16.20	0.379		2480	0.104	28.0	0.388		4260	0.182	40.0	0.384		6350	0.268	64.0	0.39		10100	0.434	79.0
	1450	0.19	7641	1700	0.036	16.20	0.189	7652	2480	0.052	28.0	0.194	7483	4260	0.092	40.0	0.192	7561	6350	0.136	64.0	0.195	7432	10100	0.22	79.0
	960	0.126		1700	0.024	16.20	0.125		2480	0.035	28.0	0.128		4260	0.061	40.0	0.127		6350	0.090	64.0	0.129		10100	0.15	79.0
	725	0.094		1700	0.018	16.20	0.094		2480	0.026	28.0	0.096		4260	0.046	40.0	0.095		6350	0.067	64.0	0.097		10100	0.109	79.0
8 4 C	2900	0.348		1700	0.065	16.20	0.343		2860	0.108	28.0	0.348		4260	0.163	40.0	0.342		6350	0.239	64.0	0.348		10100	0.387	79.0
	1450	0.174	8344	1700	0.033	16.20	0.172	8449	2860	0.055	28.0	0.174	8340	4260	0.083	40.0	0.171	8479	6350	0.121	64.0	0.174	8335	10100	0.196	79.0
	960	0.115		1700	0.022	16.20	0.114		2860	0.036	28.0	0.115		4260	0.055	40.0	0.113		6350	0.080	64.0	0.115		10100	0.13	79.0
	725	0.086		1700	0.016	16.20	0.085		2860	0.027	28.0	0.086		4260	0.041	40.0	0.085		6350	0.06	64.0	0.086		10100	0.097	79.0
9 5 C	2900	0.306		1700	0.057	16.20	0.302		2860	0.095	28.0	0.31		4260	0.146	40.0	0.306		5700	0.192	64.0	0.285		9280	0.291	79.0
	1450	0.153	9486	1700	0.029	16.20	0.151	9605	2860	0.048	28.0	0.155	9354	4260	0.074	40.0	0.153	9490	5700	0.097	64.0	0.142	10192	9280	0.147	79.0
	960	0.101		1700	0.019	16.20	0.100		2860	0.032	28.0	0.103		4260	0.049	40.0	0.101		5700	0.064	64.0	0.094		9280	0.10	79.0
	725	0.076		1700	0.014	16.20	0.075		2860	0.024	28.0	0.077		4260	0.037	40.0	0.076		5700	0.048	64.0	0.071		9280	0.073	79.0
1 0 K	2900	0.265		1550	0.045	16.20	0.242		2480	0.066	28.0	0.289		4230	0.135	40.0	0.287		6030	0.191	64.0	0.254		9280	0.26	79.0
	1450	0.133	10924	1550	0.023	16.20	0.121	11966	2480	0.033	28.0	0.144	10048	4230	0.068	40.0	0.144	10097	6030	0.096	64.0	0.127	11430	9280	0.131	79.0
	960	0.088		1550	0.015	16.20	0.080		2480	0.022	28.0	0.096		4230	0.045	40.0	0.095		6030	0.064	64.0	0.084		9280	0.087	79.0
	725	0.066		1550	0.011	16.20	0.06		2480	0.017	28.0	0.072		4230	0.034	40.0	0.071		6030	0.048	64.0	0.063		9280	0.065	79.0

SERIES M

DIMENSIONS - DOUBLE REDUCTION BASE MOUNT



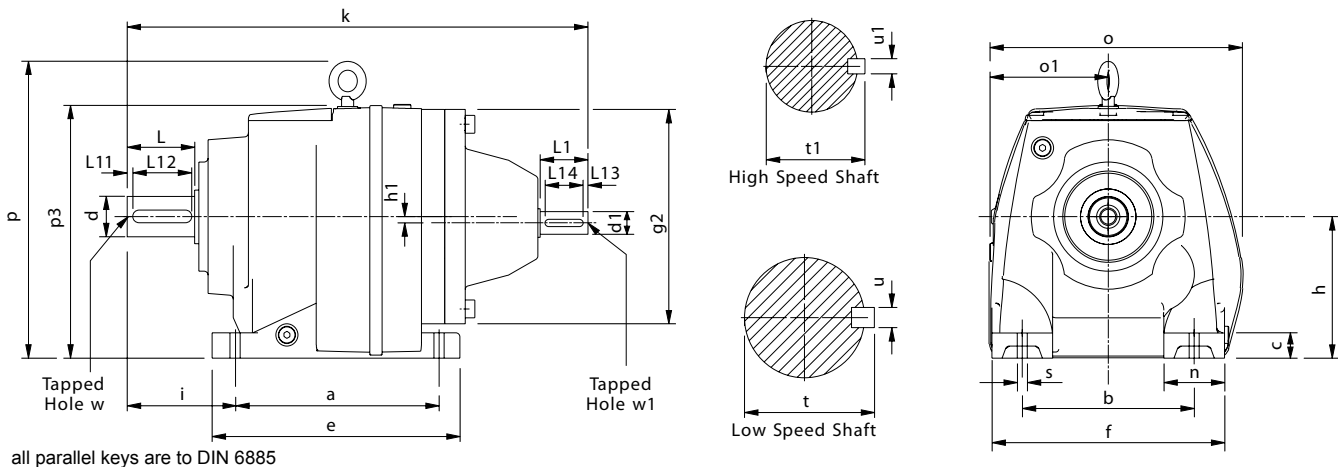
all parallel keys are to DIN 6885

size	a	b	c	e	f	g2	h	h1	i	k	n	o	o1	p	p3	s
M0122	110	110	12	131	135	140	75	-	58	286	25	152	76	-	149	10
M0222	130	110	16	152	145	140	90	-	75	317	35	170	84	-	180	10
M0322	130	110	16	152	145	140	90	-	75	317	35	170	84	-	180	10
M0422	165	135	20	200	190	180	115	-	90	369	55	204	97	-	208	15
M0522	165	135	20	200	190	180	115	-	100	379	55	204	97	-	208	15
M0622	195	150	24	235	210	180	130	14.5	100	400	60	220	110	246	214	15
M0722	205	170	25	245	230	212	140	-	115	440	60	252	119	295	250	19
M0822	260	215	35	310	290	250	180	-	140	555	75	320	167	360	310	19
M0921	310	250	40	365	340	300	225	-	160	660	90	372	200	433	394	23
M1021	370	290	45	440	400	360	250	-	185	782	110	428	225	505	446	27
M1321	410	340	50	490	450	400	265	-	220	907	110	470	242	563	483	34
M1421	500	380	50	590	530	460	300	-	260	1022	150	546	278	630	551	41

SIZE	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w
M0122	16	40	4	32	18	5	M5 x 0.8 12 deep	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
M0222	16	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0322	16	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0422	19	40	4	32	21.5	6	M6 x 1.0 16 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0522	19	40	4	32	21.5	6	M6 x 1.0 16 deep	35 k6	70	7	60	38	10	M12 x .75 28 deep
M0622	19	40	4	32	21.5	6	M6 x 1.0 16 deep	35 k6	70	7	60	38	10	M12 x1.75 28 deep
M0722	24	50	5	40	27	8	M8 x 1.25 19 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0822	28	60	5	50	31	8	M10 x 1.5 22 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0921	38	80	5	70	41	10	M12 x 1.75 28 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1021	42	110	10	70	45	12	M16 x 2.0 36 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1321	55	110	10	90	59	16	M20 x 2.5 42 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1421	55	110	10	90	59	16	M20 x 2.5 42 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

DIMENSIONS - TRIPLE REDUCTION BASE MOUNT

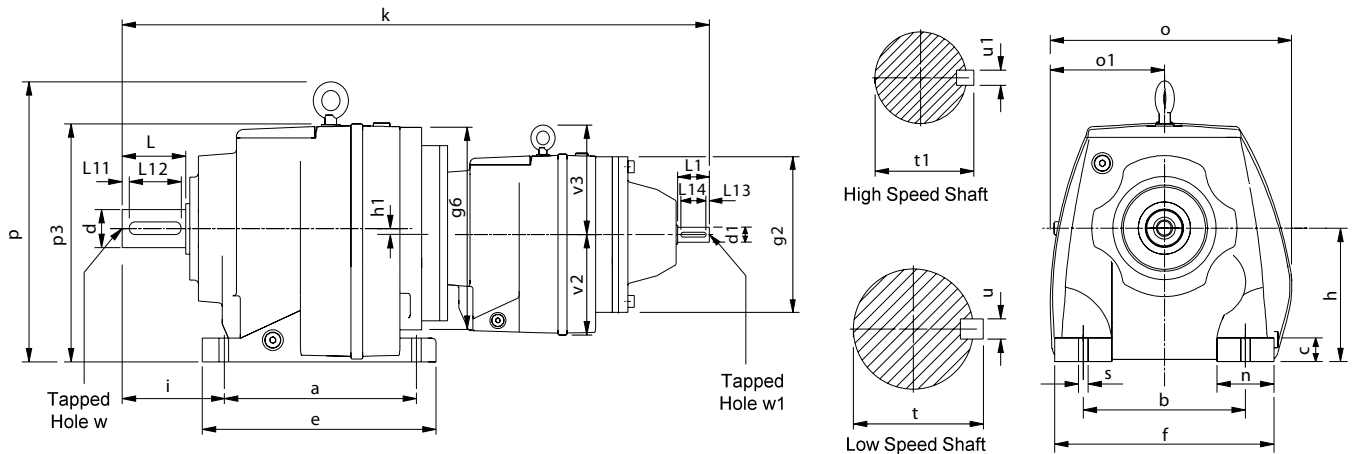


size	a	b	c	e	f	g2	h	h1	i	k	n	o	o1	p	p3	s
M0132	110	110	12	131	135	140	75	-	58	301	25	152	76	-	149	10
M0232	130	110	16	152	145	140	90	-	75	330	35	170	84	-	180	10
M0332	130	110	16	152	145	140	90	-	75	330	35	170	84	-	180	10
M0432	165	135	20	200	190	180	115	-	90	377	55	204	97	-	208	15
M0532	165	135	20	200	190	180	115	-	100	387	55	204	97	-	208	15
M0632	195	150	24	235	210	180	130	14.5	100	408	60	220	110	246	214	15
M0732	205	170	25	245	230	212	140	-	115	452	60	252	119	295	250	19
M0832	260	215	35	310	290	250	180	-	140	540	75	320	167	360	310	19
M0931	310	250	40	365	340	250	225	-	160	662	90	372	200	433	394	23
M1031	370	290	45	440	400	300	250	-	185	784	110	428	225	505	446	27
M1331	410	340	50	490	450	400	265	-	220	969	110	470	242	563	483	34
M1431	500	380	50	590	530	460	300	-	260	1094	150	546	278	630	551	41

SIZE	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w
M0132	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	20	40	4	32	22.5	6	M6 x 1 16 deep
M0232	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25	50	4	40	28	8	M10 x 1.5 22 deep
M0332	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25	50	4	40	28	8	M10 x 1.5 22 deep
M0432	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	30	60	4	50	33	8	M10 x 1.5 22 deep
M0532	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35	70	7	60	38	10	M12 x 1.75 28 deep
M0632	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35	70	7	60	38	10	M12 x 1.75 28 deep
M0732	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	40	80	5	70	43	12	M16 x 2.0 36 deep
M0832	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	50	100	10	80	53.5	14	M16 x 2.0 36 deep
M0931	28 k6	60	5	50	31	8	M10 x 1.5 22 deep	60	120	10	100	64	18	M20 x 2.5 42 deep
M1031	38 k6	80	5	70	41	10	M12 x 1.75 28 deep	70	140	15	110	74.5	20	M20 x 2.5 42 deep
M1331	55 m6	110	10	90	59	16	M20 x 2.5 42 deep	90	170	15	140	95	25	M24 x 3.0 50 deep
M1431	55 m6	110	10	90	59	16	M20 x 2.5 42 deep	100	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

DIMENSIONS - QUADRUPLE REDUCTION BASE MOUNT



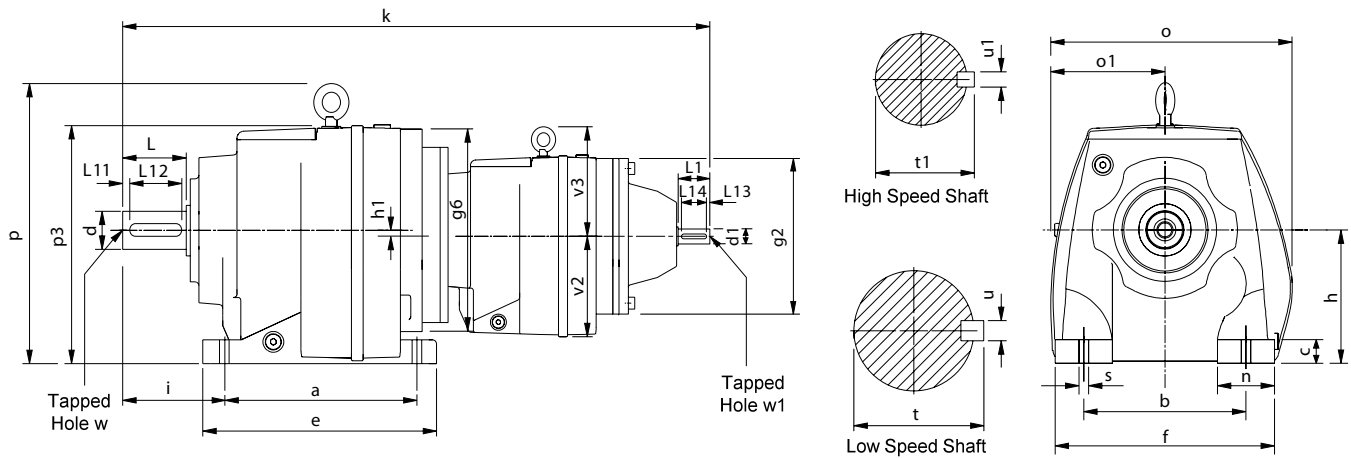
all parallel keys are to DIN 6885

size	a	b	c	e	f	g2	g6	h	h1	i	k	n	o	o1	p	p3	s	v2	v3
M0342	130	110	16	152	145	140	140	90	-	75	503	35	170	84	-	180	10	76	-
M0442	165	135	20	200	190	140	180	115	-	90	571	55	204	97	-	208	15	91	-
M0542	165	135	20	200	190	140	180	115	-	100	581	55	204	97	-	208	15	91	-
M0642	195	150	24	235	210	140	180	130	14.5	100	602	60	220	110	246	214	15	91	-
M0742	205	170	25	245	230	140	212	140	-	115	639	60	252	119	295	250	19	91	-
M0842	260	215	35	310	290	180	250	180	-	140	751	75	320	167	360	310	19	115	-
M0941	310	250	40	365	340	180	250	225	-	160	832	90	372	200	433	394	23	113	-
M1041	370	290	45	440	400	180	300	250	-	185	956	110	428	225	505	446	27	138	155
M1341	410	340	50	490	450	212	350	265	-	220	1077	110	470	242	563	483	34	187	155
M1441	500	380	50	590	530	212	350	300	-	260	1192	150	546	278	630	551	41	187	155

SIZE	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w
M0342	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0442	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0542	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0642	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0742	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0842	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0941	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1041	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1341	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1441	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

DIMENSIONS - QUINTUPLE REDUCTION BASE MOUNT



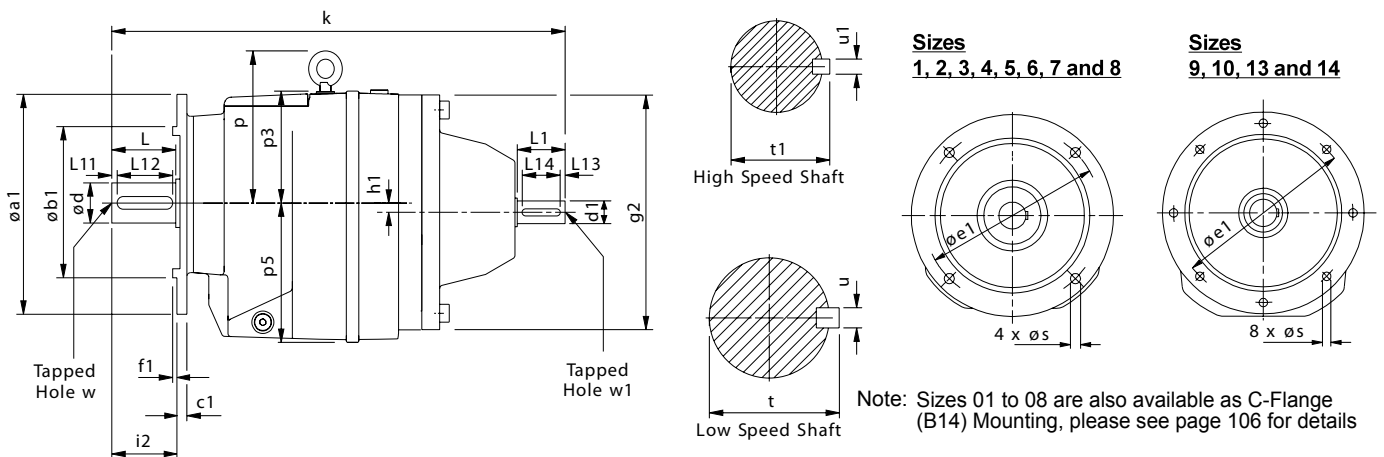
all parallel keys are to DIN 6885

size	a	b	c	e	f	g2	g6	h	h1	i	k	n	o	o1	p	p3	s	v2	v3
M0352	130	110	16	152	145	140	140	90	-	75	518	35	170	84	-	180	10	76	-
M0452	165	135	20	200	190	140	180	115	-	90	584	55	204	97	-	208	15	91	-
M0552	165	135	20	200	190	140	180	115	-	100	594	55	204	97	-	208	15	91	-
M0652	195	150	24	235	210	140	180	130	14.5	100	615	60	220	110	246	214	15	91	-
M0752	205	170	25	245	230	140	212	140	-	115	651	60	252	119	295	250	19	91	-
M0852	260	215	35	310	290	180	250	180	-	140	759	75	320	167	360	310	19	115	-
M0951	310	250	40	365	340	180	250	225	-	160	840	90	372	200	433	394	23	113	-
M1051	370	290	45	440	400	180	300	250	-	185	968	110	428	225	505	446	27	138	155
M1351	410	340	50	490	450	212	350	265	-	220	1089	110	470	242	563	483	34	187	155
M1451	500	380	50	590	530	212	350	300	-	260	1204	150	546	278	630	551	41	187	155

SIZE	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w
M0352	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0452	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0552	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0652	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0752	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0852	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0951	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1051	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1351	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1451	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

DIMENSIONS - DOUBLE REDUCTION FLANGE MOUNT



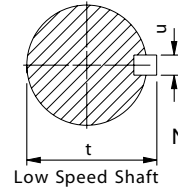
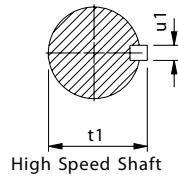
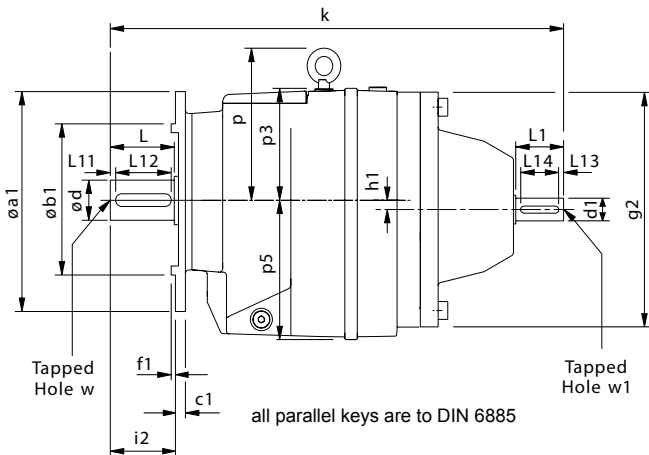
all parallel keys are to DIN 6885

Size	Øa1	Øb1	c1	Øe1	f1	Øg2	h1	i2	k	p	p3	p5	s
M0122	120	80	9	100	3	140	-	40	286	-	74	76	7
	140	95	9	115	3			40					9
	160	110	10	130	3.5			40					9
	200	130	10	165	3.5			40					11
M0222	120	80	10	100	3	140	-	50	317	-	90	91	6.6
	140	95	10	115	3			50					9
	160	110	10	130	3.5			50					9
	200	130	10	165	3.5			50					11
M0322	120	80	10	100	3	140	-	50	317	-	90	91	6.6
	140	95	10	115	3			50					9
	160	110	10	130	3.5			50					9
	200	130	10	165	3.5			50					11
M0422	140	95	11	115	3	180	-	60	369	-	93	115	9
	160	110	11	130	3.5			60					9
	200	130	11	165	3.5			60					11
	250	180	11	215	4			60					13.5
M0522	140	95	11	115	3	180	-	70	379	-	93	115	9
	160	110	11	130	3.5			70					9
	200	130	11	165	3.5			70					11
	250	180	11	215	4			70					13.5
M0622	200	130	11	165	4	180	14.5	70	400	116	84	130	11
	250	180	11	215	4			70					13.5
	300	230	11	265	4			70					13.5
M0722	200	130	11	165	3.5	212	-	80	440	155	110	140	11
	250	180	11	215	4			80					13.5
	300	230	11	265	4			80					13.5
M0822	300	230	17	265	4	250	-	100	55	180	130	182	13.5
	350	250	17	300	5			100					17.5
M0921	450	350	18	400	5	300	-	140	660	198	-	230	18
M1021	450	350	22	400	5	360	-	140	782	245	-	260	18
M1321	550	450	25	500	5	400	-	170	907	288	-	278	18
M1421	550	450	25	500	5	460	-	210	1022	320	-	318	18

SIZE	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w1
M0122	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
M0222	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0322	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0422	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0522	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0622	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0722	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0822	28 k6	60	5	50	31	8	M10 x 1.5 22 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0921	38 k6	80	5	70	41	10	M12 x 1.75 28 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1021	42 k6	110	10	70	45	12	M16 x 2.0 36 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1321	55 m6	110	10	90	59	16	M20 x 2.5 42 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1421	55 m6	110	10	90	59	16	M20 x 2.5 42 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

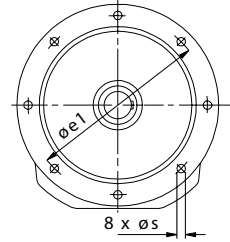
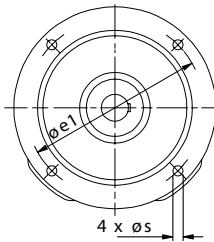
SERIES M

DIMENSIONS - TRIPLE REDUCTION FLANGE MOUNT



Sizes
1, 2, 3, 4, 5, 6, 7 and 8

Sizes
9, 10, 13 and 14



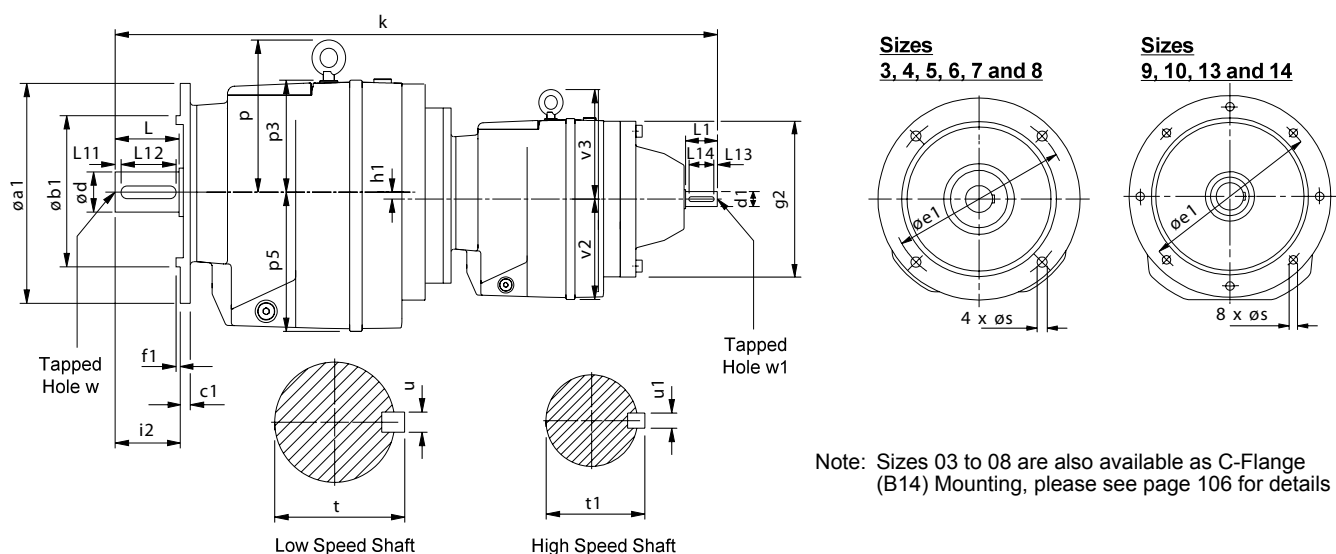
Note: Sizes 01 to 08 are also available as C-Flange (B14) Mounting, please see page 106 for details

Size	$\phi a1$	$\phi b1$	$c1$	$\phi e1$	$f1$	$\phi g2$	$h1$	$i2$	k	p	$p3$	$p5$	s
M0132	120	80	9	100	3	140	-	40	301	-	74	76	7
	140	95	9	115	3			40					9
	160	110	10	130	3.5			40					9
	200	130	10	165	3.5			40					11
M0232	120	80	10	100	3	140	-	50	330	-	90	91	6.6
	140	95	10	115	3			50					9
	160	110	10	130	3.5			50					9
	200	130	10	165	3.5			50					11
M0332	120	80	10	100	3	140	-	50	330	-	90	91	6.6
	140	95	10	115	3			50					9
	160	110	10	130	3.5			50					9
	200	130	10	165	3.5			50					11
M0432	140	95	11	115	3	180	-	60	377	-	93	115	9
	160	110	11	130	3.5			60					9
	200	130	11	165	3.5			60					11
	250	180	11	215	4			60					13.5
M0532	140	95	11	115	3	180	-	70	387	-	93	115	9
	160	110	11	130	3.5			70					9
	200	130	11	165	3.5			70					11
	250	180	11	215	4			70					13.5
M0632	200	130	11	165	4	180	14.5	70	408	116	84	130	11
	250	180	11	215	4			70					13.5
	300	230	11	265	4			70					13.5
M0732	200	130	11	165	3.5	212	-	80	452	155	110	140	11
	250	180	11	215	4			80					13.5
	300	230	11	265	4			80					13.5
M0832	300	230	17	265	4	250	-	100	540	180	130	182	13.5
	350	250	17	300	5			100					17.5
M0931	450	350	18	400	5	300	-	140	662	198	-	230	18
M1031	450	350	22	400	5	360	-	140	784	245	-	260	18
M1331	550	450	25	500	5	400	-	170	969	288	-	278	18
M1431	550	450	25	500	5	460	-	210	1094	320	-	318	18

Size	High Speed shaft							Low Speed shaft						
	$d1$	$L1$	$L13$	$L14$	$t1$	$u1$	$w1$	d	L	$L11$	$L12$	t	u	$w1$
M0132	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	20 k6	40	4	32	22.5	6	M6 x 1 16 deep
M0232	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0332	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0432	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0532	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0632	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0732	19 k6	40	4	32	21.5	6	M6 x 1.0 19 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0832	24 k6	50	5	40	27	6	M8 x 1.25 22 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0931	28 k6	60	5	50	31	8	M10 x 1.5 28 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1031	38 k6	80	5	70	41	10	M12 x 1.75 36 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1331	55 m6	110	10	90	59	16	M20 x 2.5 42 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1431	55 m6	110	10	90	59	16	M20 x 2.5 42 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

DIMENSIONS - QUADRUPLE REDUCTION FLANGE MOUNT



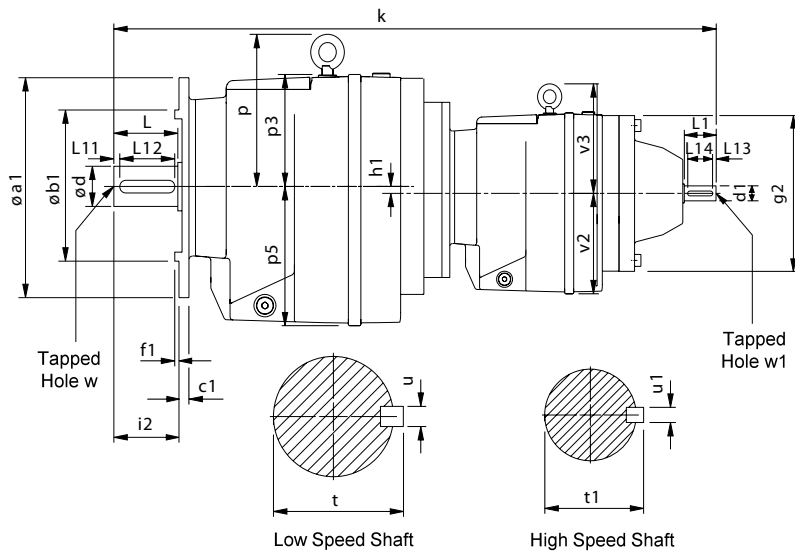
all parallel keys are to DIN 6885

Size	Øa1	Øb1	c1	Øe1	f1	Øg2	h1	i2	k	p	p3	p5	s	v2	v3
M0342	120	80	10	100	3	140	-	50	503	-	90	91	6.6	76	-
	140	95	10	115	3			50					9		
	160	110	10	130	3.5			50					9		
	200	130	10	165	3.5			50					11		
M0442	140	95	11	115	3	140	-	60	571	-	93	115	9	91	-
	160	110	11	130	3.5			60					9		
	200	130	11	165	3.5			60					11		
	250	180	11	215	4			60					13.5		
M0542	140	95	11	115	3	140	-	70	581	-	93	115	9	91	-
	160	110	11	130	3.5			70					9		
	200	130	11	165	3.5			70					11		
	250	180	11	215	4			70					13.5		
M0642	200	130	11	165	4	140	14.5	70	602	116	84	130	11	91	-
	250	180	11	215	4			70					13.5		
	300	230	11	265	4			70					13.5		
M0742	200	130	11	165	3.5	140	-	80	639	155	110	140	11	91	-
	250	180	11	215	4			80					13.5		
	300	230	11	265	4			80					13.5		
M0842	300	230	17	265	4	180	-	100	751	180	130	182	13.5	115	-
	350	250	17	300	5			100					17.5		
M0941	450	350	18	400	5	180	-	140	832	198	-	230	18	115	-
M1041	450	350	22	400	5	212	-	140	956	245	-	260	18	140	155
M1341	550	450	25	500	5	212	-	170	1077	288	-	278	18	140	155
M1441	550	450	25	500	5	212	-	210	1192	320	-	318	18	140	155

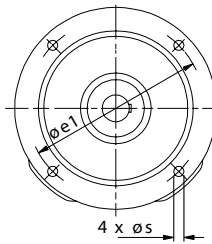
Size	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w1
M0342	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0442	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0542	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0642	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0742	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0842	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0941	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1041	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1341	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1441	24 k6	50	5	40	27	8	M8 x 1.25 19 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

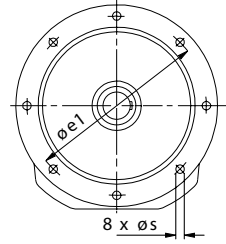
DIMENSIONS - QUINTUPLE REDUCTION FLANGE MOUNT



Sizes
3, 4, 5, 6, 7 and 8



Sizes
9, 10, 13 and 14



Note: Sizes 03 to 08 are also available as C-Flange (B14) Mounting, please see page 106 for details

all parallel keys are to DIN 6885

Size	Øa1	Øb1	c1	Øe1	f1	Øg2	h1	i2	k	p	p3	p5	s	v2	v3
M0352	120	80	10	100	3	140	-	50	518	-	90	91	6.6	76	-
	140	95	10	115	3			50					9		
	160	110	10	130	3.5			50					9		
	200	130	10	165	3.5			50					11		
M0452	140	95	11	115	3	140	-	60	584	-	93	115	9	91	-
	160	110	11	130	3.5			60					9		
	200	130	11	165	3.5			60					11		
	250	180	11	215	4			60					13.5		
M0552	140	95	11	115	3	140	-	70	594	-	93	115	9	91	-
	160	110	11	130	3.5			70					9		
	200	130	11	165	3.5			70					11		
	250	180	11	215	4			70					13.5		
M0652	200	130	11	165	4	140	14.5	70	615	116	84	130	11	91	-
	250	180	11	215	4			70					13.5		
	300	230	11	265	4			70					13.5		
	200	130	11	165	3.5			80					11		
M0752	250	180	11	215	4	140	-	80	651	155	110	140	13.5	91	-
	300	230	11	265	4			80					13.5		
	300	230	17	265	4			100					13.5		
M0852	350	250	17	300	5	180	-	100	759	180	130	182	17.5	115	-
	450	350	18	400	5			140					18		
M0951	450	350	22	400	5	212	-	140	968	245	-	260	18	140	155
M1051	550	450	25	500	5	212	-	170	1089	288	-	278	18	140	155
M1451	550	450	25	500	5	212	-	210	1204	320	-	318	18	140	155

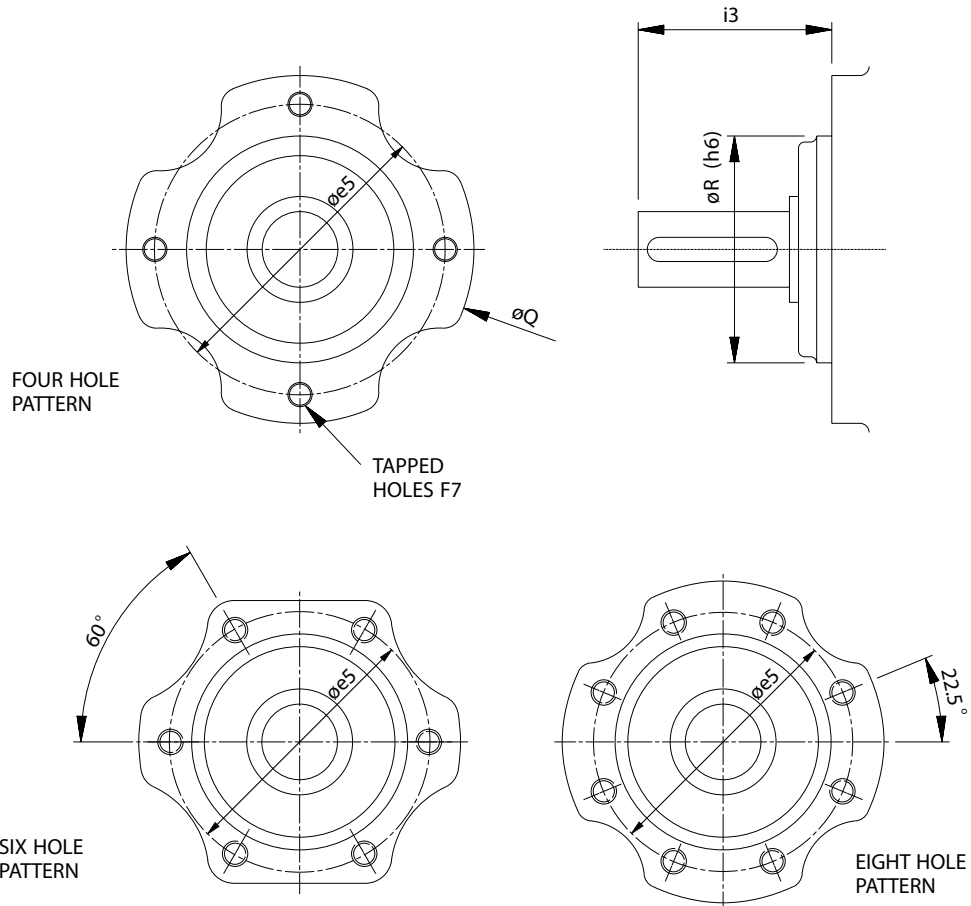
Size	High Speed shaft							Low Speed shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w1
M0352	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	25 k6	50	4	40	28	8	M10 x 1.5 22 deep
M0452	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	30 k6	60	4	50	33	8	M10 x 1.5 22 deep
M0552	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0652	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	35 k6	70	7	60	38	10	M12 x 1.75 28 deep
M0752	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	40 k6	80	5	70	43	12	M16 x 2.0 36 deep
M0852	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 36 deep
M0951	16 k6	40	4	32	18	5	M5 x 0.8 12 deep	60 m6	120	10	100	64	18	M20 x 2.5 42 deep
M1051	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 42 deep
M1351	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	90 m6	170	15	140	95	25	M24 x 3.0 50 deep
M1451	19 k6	40	4	32	21.5	6	M6 x 1.0 16 deep	100 m6	210	15	180	106	28	M24 x 3.0 50 deep

SERIES M

DIMENSIONS - C-FLANGE (B14) MOUNTING

Column 9 Entry

- E C-Flange (B14) Mounting (For sizes M01 to M08 only)
- V Base and C-Flange (B14) Mounting (non standard - special orders only)



2, 3, 4 & 5 Stage Units

SIZE	$\phi e5$	F7	i3	ϕQ	ϕR
M01	75 pcd	4 Holes M8 x 1.25 12 Deep	54	98	52
M02 / M03	96 pcd	4 Holes M8 x 1.25 15 Deep	62 / 62	115	75
M04 / M05	105 pcd	4 Holes M12 x 1.75 21 Deep	74 / 84	130	85
M06 / M07	124 pcd	6 Holes M12 x 1.75 21 Deep	84 / 94	152	102
M08	170 pcd	8 Holes M12 x 1.75 21 Deep	120	195	145

THERMAL POWER RATINGS

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 20°C, where units are to operate in other ambient temperatures thermal ratings must be adjusted by the following factors

Unit Size								
	-20	-10	0	10	20	30	40	50
All Units	1.57	1.43	1.29	1.14	1.00	0.86	0.71	0.5

Thermal Power (kW) - Two Stage Units

Overall Ratios	Type Of Cooling	Input rev/min	Unit Size											
			M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M13	M14
1.4 to 5.6	Units with no additional cooling	2900	Consult Application Engineering											
		1450	4.1	6	6	9.9	9.9	11.5	14.5	22	31	42	54	73
		960	4	5.7	5.7	9.5	9.5	11	13.8	21	30	40	51	70
		725	3.9	5.6	5.6	9.2	9.2	10.6	13.4	20	29	39	50	68
6.3 & over	Units with no additional cooling	2900	3	4.4	4.4	7.2	7.2	8.3	10.5	16	23	31	39	53
		1450	4.1	5.8	5.8	9.8	9.8	11.3	14.2	22	31	42	53	72
		960	3.9	5.5	5.5	9.4	9.4	10.8	13.6	21	29	40	50	69
		725	3.8	5.4	5.4	9.1	9.1	10.5	13.1	20	28	38	49	67
1.4 to 5.6	Units with Fan cooling	2900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		1450	-	-	-	-	-	-	29	44	63	85	107	146
		960	-	-	-	-	-	-	25	39	55	74	94	128
		725	-	-	-	-	-	-	22	33	47	63	81	110
6.3 & over	Units with Fan cooling	2900	-	-	-	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
		1450	-	-	-	-	-	-	28	43	62	83	105	144
		960	-	-	-	-	-	-	25	38	54	73	92	126
		725	-	-	-	-	-	-	21	33	46	62	79	108

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

FAN COOLED UNITS

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

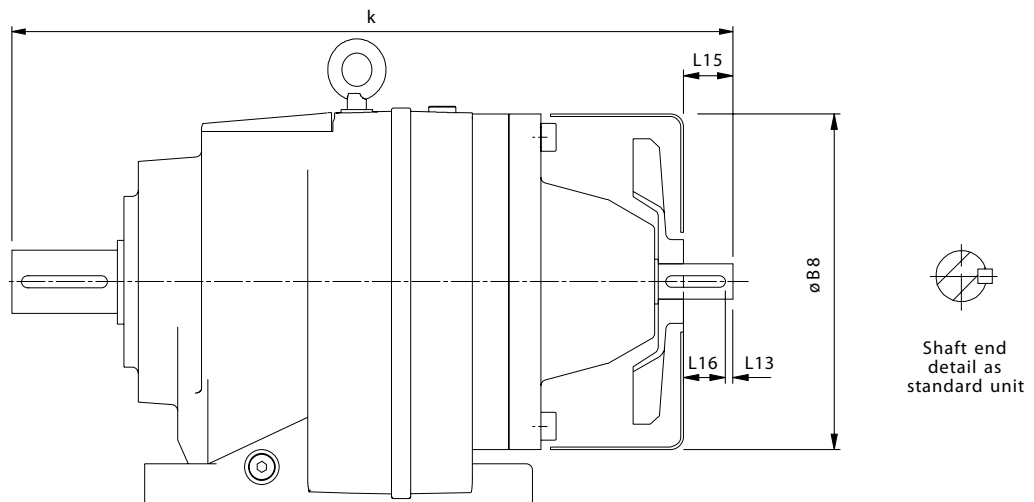
CW rotation

Z

CCW rotation

Dimensions of Fan Cooled Units

Double Reduction Units



Unit Size	ØB8	k	L13	L15	L16
M0722	225	440	5	35	30
M0822	265	555	5	45	40
M0921	320	660	5	65	60
M1021	380	782	10	95	85
M1321	420	907	10	85	75
M1421	480	1022	10	85	75

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)

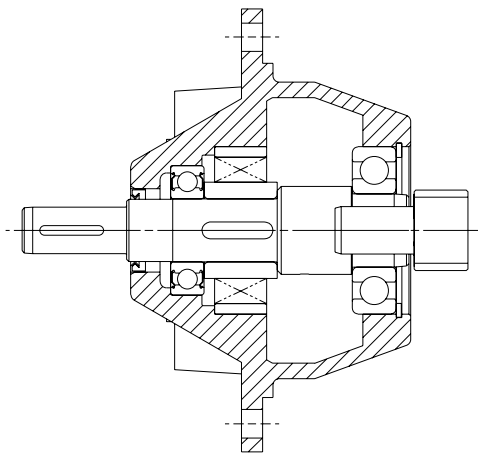
X

 for CW rotation (or

Y

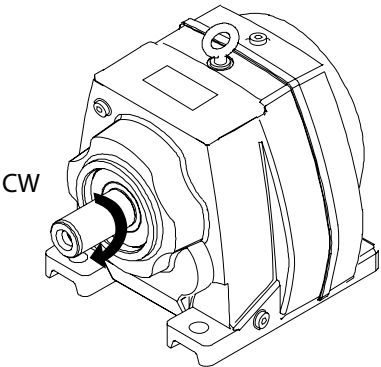
 if used in conjunction with a fan kit)

Unit Size	Lift off Speed ('n' min) (at inputshaft) (rev/min)	Rated Locking Torque ('T max') (at inputshaft) (Nm)
M0422	800	100
M0522	800	100
M0622	800	100
M0712	670	170
M0722	670	170
M0732	800	100
M0822	670	300
M0832	670	170
M0921	620	940
M0931	670	300
M1021	550	1260
M1031	670	300
M1321	550	2400
M1331	550	2400
M1421	550	2400
M1431	550	2400



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



SHIPPING SPECIFICATION

BASE MOUNT UNITS

UNIT SIZE & No OF REDUCTIONS			M0122	M0132	M0222	M0232	M0322	M0332	M0342	M0352	M0422	M0432	M0442	M0452	M0522	M0532	M0542	M0552	M0622	M0632	M0642	M0652	M0722
REDUCER VERSION			8.2	8.8	12	13	12	13	21.1	21.7	22	22	33	34	22	22	35	36	27	27	40	41	38
MOTORISED	63	Without Motor	8.9	11	12	14	12	14	22	23		24	36	37		24	36	37		29	41	43	
		With Motor	13	15	17	18	17	18	26	28		28	40	42		28	40	42		33	45	47	
	71	Without Motor	8.5	10	12	14	12	14	21	23		23	35	37		23	35	37		29	41	42	
		With Motor	15	17	19	20	19	20	28	29		30	42	43		30	42	44		35	47	49	
	80A	Without Motor	9.0	12	13	14	13	14	22	23	21	24	36	37	22	24	36	38	27	29	41	43	34
		With Motor	19	21	22	24	22	24	31	33	31	33	45	47	31	33	45	47	36	39	51	52	44
	80B	Without Motor	9.0	12	13	14	13	14	22	23	21	24	36	37	22	24	36	38	27	29	41	43	34
		With Motor	20	23	24	25	24	25	33	34	32	35	47	48	33	35	47	49	38	40	52	54	45
	90S	Without Motor	10	12	13	16	13	15	23	24	22	24	37	38	23	25	37	38	28	30	42	44	35
		With Motor	23	25	27	30	27	28	36	38	36	38	50	52	36	38	50	52	41	43	55	57	48
	90L	Without Motor	10	12	13	16	13	15	23	24	22	24	37	38	23	25	37	38	28	30	42	44	35
		With Motor	24	26	28	31	28	29	37	39	37	39	51	53	37	39	51	53	42	44	56	58	49
	100L	Without Motor	12		15		15				25				25				31				38
		With Motor	36		39		39				49				51				54				62
	112M	Without Motor	12		15		15				25				25				31				38
		With Motor	43		46		46				56				56				62				69
	132S	Without Motor																					40
		With Motor																					88
	132M	Without Motor																					40
		With Motor																					92
	160M	Without Motor																					
		With Motor																					
	160L	Without Motor																					
		With Motor																					

SERIES M

SHIPPING SPECIFICATION

BASE MOUNT UNITS

UNIT SIZE & No OF REDUCTIONS			M0732	M0742	M0752	M0822	M0832	M0842	M0852	M0921	M0931	M0941	M0951	M1021	M1031	M1041	M1051	M1321	M1331	M1341	M1351	M1421	M1431	M1441	M1451
REDUCER VERSION			39	48	49	67	74	96	96	114	123	140	140	170	179	204	206	248	270	279	280	360	405	395	396
MOTORISED	80A	Without Motor	39	48	52	73	71	96	99	117	127	145	148		182	194	199			336	342			446	452
		With Motor	49	57	61	82	81	106	108	127	137	154	157		192	203	209			346	351			456	461
	80B	Without Motor	39	48	52	73	71	96	99	117	127	145	148		182	194	199			336	342			446	452
		With Motor	50	59	63	84	82	107	110	128	138	156	159		193	205	210			347	353			457	463
	90S	Without Motor	40	48	52	73	72	97	100	117	127	145	149		182	194	200			337	342			445	450
		With Motor	53	62	66	86	85	110	113	131	141	159	162		196	208	213			350	356			458	464
	90L	Without Motor	40	48	52	73	72	97	100	117	127	145	149		182	194	200			337	342			445	450
		With Motor	54	63	67	87	86	111	114	132	142	160	163		197	209	214			351	357			459	465
	100L	Without Motor	39			73	75	97		117	127	145		163	182	197	203	239	271	340	345	344	394	450	455
		With Motor	63			97	99	121		141	151	169		187	206	221	227	263	295	364	369	368	418	474	479
	112M	Without Motor	43			73	75			117	127			163	182	197	203	239	271	340	345	344	394	450	455
		With Motor	74			104	106			148	158			194	213	228	234	270	302	371	376	375	425	481	486
	132S	Without Motor				72				117				163	182	199		239	271	342	347	344	394	452	
		With Motor				120				165				211	230	247		287	319	390	395	392	442	500	
	132M	Without Motor				72				117				163	182	199		239	271	342	347	344	394	452	
		With Motor				124				169				215	234	251		291	323	394	399	396	446	504	
	160M	Without Motor				72				124				172	189			247	279			357	402		
		With Motor				153				205				253	270			328	360			438	483		
	160L	Without Motor				72				124				172	189			247	279			357	402		
		With Motor				167				219				267	284			342	374			452	497		
	180M	Without Motor								124				172	189			247	279			357	402		
		With Motor								291				339	356			414	446			524	569		
	180L	Without Motor								124				172	189			247	279			357	402		
		With Motor								305				353	370			428	460			538	583		
	200L	Without Motor								124				172				247	279			357	402		
		With Motor								356				404				479	511			589	634		
	225S	Without Motor								138				186				261	293			371	416		
		With Motor								425				473				548	580			658	703		
	225M	Without Motor								138				186				261	293			371	416		
		With Motor								460				508				583	615			693	738		
	250M	Without Motor																310				420			
		With Motor																695				805			
	280S	Without Motor																310				420			
		With Motor																820				930			
	280M	Without Motor																310				420			
		With Motor																910				1020			

ALL WEIGHTS IN KG

ALL WEIGHTS EXCLUDE LUBRICANT

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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