

ELECTRIC MOTORS

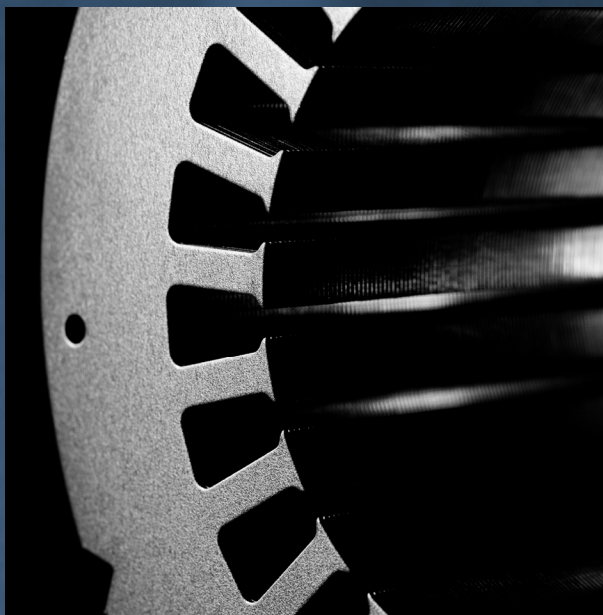
North America

"The Metric Motor Specialists"



Electric Motors Europe





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CERTIFICATIONS

USA standards (UL mark)



Underwriters Laboratories Inc. is an independent organization that for more than 100 years has been controlling and certifying product safety. Today, the organization is still the major body for compliance assessment, both for the United States market and the rest of the world. Every year over 14 billion products are granted the UL mark, which works with five test laboratories in the United States and an international network of branches and representatives.

The procedures required to obtain the right to apply the UL mark to products is complex and highly selective.

Electric motors, considered as components of equipments or manufacturing systems, are recognized with the UR Recognized Component mark, applied to the product identification plate. Production samples, once safety tests made on them have given positive results, are given a UL file number that identifies the manufacturer and the product or products approved.

The file containing CEG products with UL approval is E176350. The certifying agency also makes periodic checks without prior warning on production facilities, to guarantee constant compliance with the requirements.

NB: UL product certification is demonstrated, in addition to the mark applied on the product itself, solely by the Yellow Card issued to the manufacturer, copies of which are available on request.

Canadian standards (CSA mark)



The Canadian Standard Association is also an independent organization that since 1919 has been committed in particular to the development of standards and their application to production, with specific reference to the protection of persons and of domestic and manufacturing systems in general. The CSA also has a comprehensive network of branches and representatives, and is able to test and certify products in accordance with its own standards, with those of the USA and with other international standard agencies.

The approval procedures for the application of the CSA mark involve rigorous duration trials, often under extreme conditions.

Electric motors are recognized with the CSA Recognized Component mark, applied to the product identification plate. Production samples, once safety tests made on them have given positive results, are given a CSA file number that identifies the manufacturer and the product or products approved.

The file containing CEG products with CSA approval is LR109925-1. The certifying agency also makes periodic checks without prior warning on production facilities, to guarantee constant compliance with the requirements.

NB: CSA product certification is demonstrated, in addition to the mark applied on the product itself, solely by the Certificate of Compliance issued to the manufacturer, copies of which are available on request.

High efficiency Energy Policy Act (EP Act): Public Law 102-486

This law, published in 1992 in the USA, gives guideline to be followed for the improvement of electric motor efficiency, with the same aims as the program being implemented by the European Union (energy saving, less pollution, etc.). Since 1992 the American Department of Energy (DOE) has developed the reference standards to be applied (classification, checking procedures, product marking), and these came into effect in October 1997. The DOE has also accredited the follow agencies and their relatives reference standards:

- NEMA (National Electrical Manufacturers Association) – Standard IEEE 112 – 1991
- CSA (Canadian Standard Association) – Standard C390 – 33

Meeting already CSA Safety standard requirements, CEG has decided to enlarge its products range, working on the improvement of electrical efficiency too. Particular attention was focused on the three phase single speed motors, with power from 1 to 200HP, 2 - 4 - 6 poles, whose mandatory efficiency levels have been achieved.

European Standards (CE mark)

The CE mark, standing for *Conformite Europeenne*, indicates that the product complies with all applicable EU Directives. This is affixed by the manufacturer at the end of the manufacturing process having complied with all applicable standards. Three different directives apply to electric motor design and production. 89/392/EEC – Machine Directive, 89/336/EEC – EMC Directive, 73/23/EEC – Low Voltage Directive. The CE mark applied to the motor certifies CEG's declaration of compliance with the above directives.



GENERAL CONSTRUCTION

Frames

All CEG frames are constructed in pressure die-cast aluminium alloy from 56 to 180L frames; from 200L to 315 in cast iron.

Feet

Frame sizes from 63 frame to 180 frame have removeable multimount feet. The motor features pre tapped holes to relocate the feet and change the terminal box position.

Endshields

CEG motors up to 180L frame have endshields pressure-cast aluminium, from 200 to 315 made in cast iron. All aluminium endshields from 100L frame and up have reinforced bearing journals (with steel inserts) giving them greater mechanical strength.

Fan Covers

Made from pressed sheet metal and fitted to ensure proper airflow and cooling.

Cooling Fans

Motors are fitted with a bi-directional fan, manufactured with high thermal resistance PVC plastic in 56 to 160L frames and in aluminium from 180M to 315 frames. Alternative fans for applications with extremely high ambient temperatures are available.

Shafts and Rotors

Shafts are made with C45 steel, alloy steel can be used on request. The cage type rotors are made in die-cast aluminium (AL) or aluminium alloy (GD ALSI 13-UN14514) and are dynamically balanced.

Terminal Boxes

The standard position for the terminal box is on the top of the motor (F0 position). On 63 to 180 frames, the box position can easily be converted by relocating the feet into the pre tapped holes making a F1 or F2 position. They are aluminium on three phase and plastic on single phase.

Paint

CEG motors are finished with ecological water-soluble paints free of chrome and lead; the standard color is BLUE RAL 5010; other colors are available upon request.



ENCLOSURE and BEARINGS

Bearings

CEG motors are fitted with rigid radial bearings with one ring of "CM" or "C3" ball bearings with IP44 protection (ZZ), or radial bearings with a ring of "C3" cylindrical roller bearings, depending on dimensions and/or requests (see chart below). These bearings are supplied by leading manufacturers, and are specifically designed for use on electric motors. The bearings are pre-lubricated for lifetime operation by the manufacturers with lithium grease (resistant from -40 to +130°C), and are axially pre-loaded with compensation rings in tempered steel. From M225 to M315 they are lubricated with a grease nipple located at the top of the motor at each end (D and N). These motor sizes should be lubricated at intervals that depend on speed (RPM) and running hours.

Chart: Bearings fitted on CEG motors

Motor size	Drive end bearing - D -	Non drive end bearing - N -	Motor size	Drive end bearing - D -	Non drive end bearing - N -
M56	6201 CM ZZ	6201 CM ZZ	M200Lb	6313 C3	6313 C3
M63	6202 CM ZZ	6202 CM ZZ	M225SM	6313 C3 - (313W C3)*	6213 C3
M71	6203 CM ZZ	6203 CM ZZ	M250M	6314 C3 - (314W C3)*	6214 C3
M80	6204 CM ZZ	6204 CM ZZ	M280SM	6317 C3 - (317W C3)*	6317 C3
M90S-L	6205 CM ZZ	6205 CM ZZ	M315SM	6317 C3 - (317W C3)*	6317 C3
M100L	6206 C3 ZZ	6206 C3 ZZ	M315L	6319 C3 - (319W C3)*	6319 C3
M112M	6306 C3 ZZ	6306 C3 ZZ	Nema 56	6204 CM ZZ	6204 CM ZZ
M132S-M	6208 C3 ZZ	6208 C3 ZZ	Nema 56H	6205 CM ZZ	6205 CM ZZ
M160M-L	6309 C3 ZZ	6309 C3 ZZ	Nema 143/145	6205 CM ZZ	6205 CM ZZ
M180M-L	6310 C3 ZZ	6310 C3 ZZ	Nema 182/184	6306 C3 ZZ	6306 C3 ZZ
M200La	6312 C3 ZZ	6312 C3 ZZ	Nema 213/115	6208 C3 ZZ	6208 C3 ZZ

* Optional for drive end

External or mechanical protection rating

The level of protection against accidental contacts and the entry of solid bodies and water is expressed by an international system of symbols composed of two letters and two numbers:

IP = reference letters for type of protection

1st number = level of protection against solid bodies

2nd number = level of protection against water

Chart: Protection ratings of electrical machines (IEC 34 - 5)

1 st number	Protection against solid	2 nd number	Protection against water
0	Machine not protected	0	Machine not protected
1	Protected against solid bodies with dimensions over 50 mm	1	Protection against vertical fall of water drops
2	Protected against solid bodies with dimensions over 12 mm	2	Protection against water drops with maximum angle of 15°
3	Protected against solid bodies with dimensions over 2.5 mm	3	Protection against rain
4	Protected against solid bodies with dimensions over 1 mm	4	Protection against water sprays
5	Protection against dust	5	Protection against water jets
		6	Protection against water waves
		7	Protection against effects of immersion
		8	Protection against effects of submersion

Standard CEG motor protection is IP 55: By request protection rating IP 56 can be supplied (with surcharge).





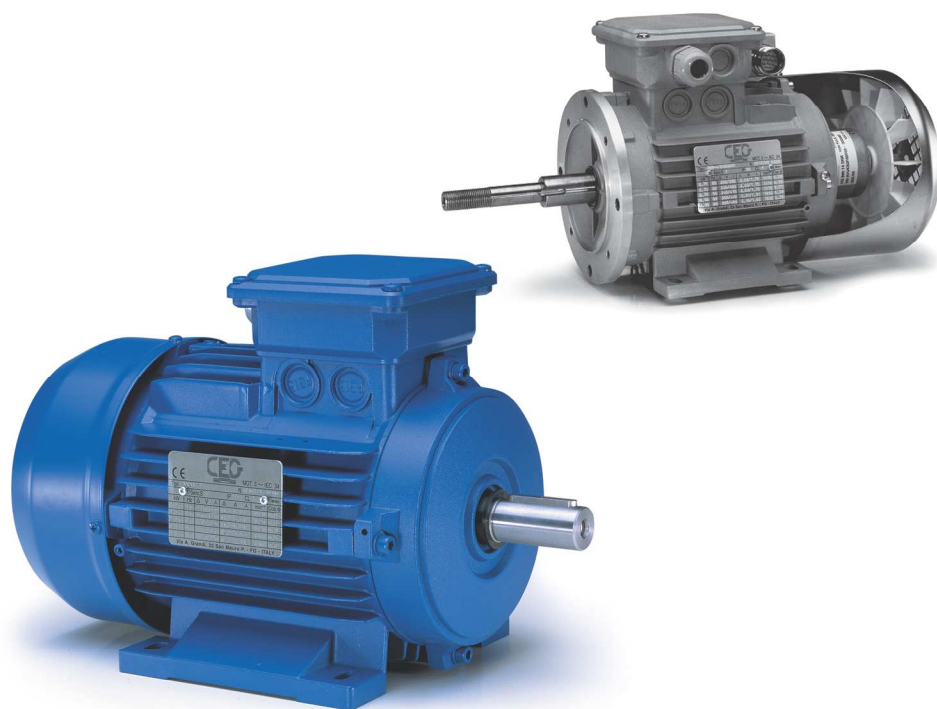
PRODUCTRANGE



Electric Motors Europe



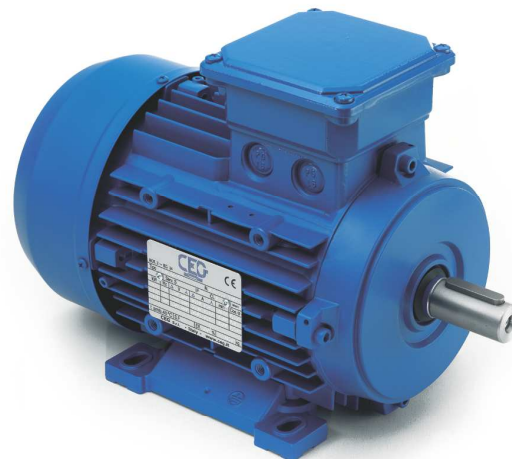
3 PHASE MOTORS
BRAKE MOTORS
IEC MOTOR FLANGES
CAST IRON 3 PHASE MOTORS
SAW ARBOR MOTORS
OPTIONS FOR INVERTER-DUTY
MOTOR DATA



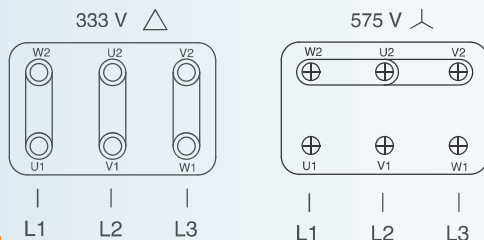
3 Phase motors

PRODUCTION STANDARDS

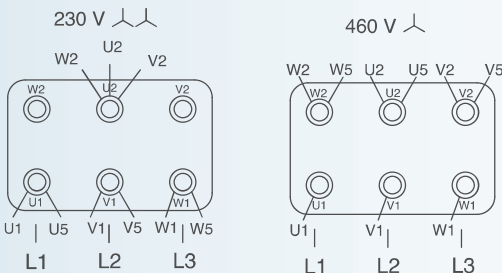
Mounting-construction form	Removable Feet
Terminal box position	Multimount
Power supply	230/460 V 60 Hz 575 V 60 Hz
Protection rating	IP55
Bearings	ZZ
Winding insulation	Class F
Connection cover	2 Aluminium components
Motor clamping	Bosses and bolts
Paint finish	BLUE RAL 5010
Fan cover	Galvanized sheet steel
Service factor	1.15 (unless otherwise stated)



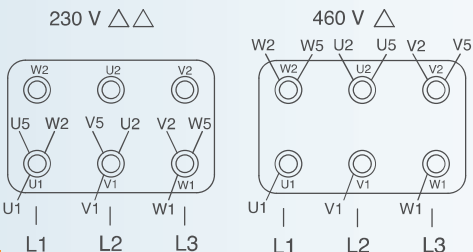
Three phase motors D-Y Δ/Y



Three phase motors with 6 terminals 9 wires Y/Y



Three phase motors with 6 terminals 9 wires $\Delta\Delta/\Delta$



Connection
used on 5.5 HP
and larger

WEIGHT

FRAME	KGS	LBS
56	3.5	7.8
63	5	11
71	8	17.5
80	12	26.5
90S	13	29
90L	18	39.7
100L	24	53
112M	35	77
132S	43	95
132M	59	130
160M	86	190
160L	110	242.5
180M	160	353
180L	160	353

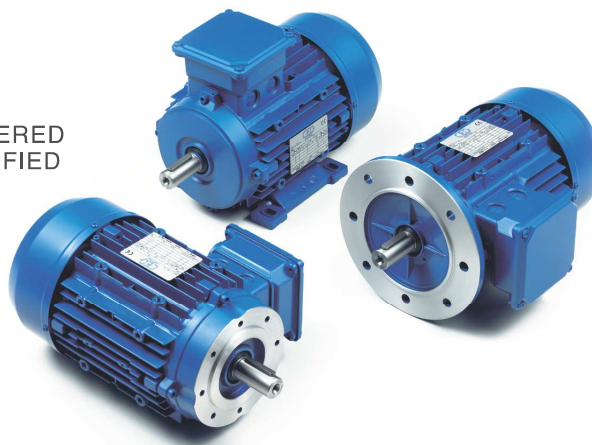
Please note: prices are subject to change without notice.

Inverter Duty

3 Phase high efficiency motors

TYPE MTEPS

- *CSA APPROVED
- *UL APPROVED
- *ISO 9001 REGISTERED
- *EFFICIENCY VERIFIED
- *CE MARK



- 230/460V or 575V
- 3Ph - 60Hz - TEFC - IP55
- Class F Insulation
- Removable feet
- Multi-mount design
- Service Factor 1.15
suitable for use at 380V 50Hz
1.0 Service Factor
- ▲ Service Factor 1.0
efficiency at 3/4 load

2 POLES - 3600 RPM

TYPE	HP	KW	EFF	LIST
MTEPS90SA2	2	1.5	84	517
MTEPS90LA2	3	2.2	85.5	572
MTEPS100LA2	4	3	86.5	701
MTEPS100LB2	5	3.7	87.5	757
MTEPS112MA2	5.5	4	87.5	1064
MTEPS112MB2 ▲	7.5	5.5	87.5	1186
MTEPS132SA2	7.5	5.5	88.5	1171
MTEPS132SB2	10	7.5	90.2	1303
MTEPS132MB2 ▲	15	11	90.2	1573
MTEPS160MA2	15	11	90.2	2092
MTEPS160MB2	20	15	91	2415
MTEPS160LA2	25	18.5	91	3287
MTEPS180MB2	30	22	91	5633

4 POLES - 1800 RPM

TYPE	HP	KW	EFF	LIST
MTEPS90SA4	1.5	1.1	84	495
MTEPS90LA4	2	1.5	84	558
MTEPS100LA4	3	2.2	87.5	760
MTEPS100LB4	4	3	87.5	973
MTEPS112MA4	5.5	4	87.5	1101
MTEPS112MB4 ▲	7.5	5.5	89.5	1178
MTEPS132SA4	7.5	5.5	89.5	1325
MTEPS132MA4	10	7.5	89.5	1527
MTEPS132MC4 ▲	15	11	91.7	1855
MTEPS160MA4	15	11	91.7	2679
MTEPS160LA4	20	15	91	3082
MTEPS180MA4	25	18.5	92.4	5651
MTEPS180LA4	30	22	92.4	6018

10:1 VARIABLE TORQUE
4:1 CONSTANT TORQUE
VENTILATION KITS ALSO
AVAILABLE



FORCED VENTILATION KITS

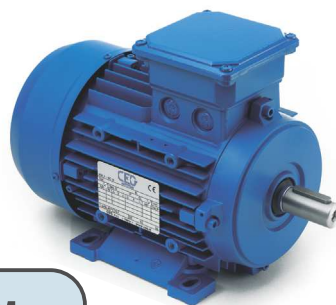
TYPE	FRAME	LIST
SV63	63	365
SV71	71	375
SV80	80	400
SV90	90	450
SV100	100	500
SV112	112	525
SV132	132	625

3 Phase motors

Inverter Duty

TYPE MTOML

- *CSA APPROVED*
- *UL APPROVED*
- *ISO 9001 REGISTERED*
- *CE MARK*



- 230/460V or 575V
- 3Ph - 60Hz - TEFC - IP55
- Class F Insulation
- Removable Feet
- Multi-mount design
- Service Factor 1.15 suitable for use at 380V 50Hz
- ▲ Definite Purpose

2 POLES - 3600 RPM

TYPE	HP	KW	LIST
MTOML56A2	0.18	0.135	291
MTOML63A2	0.25	0.185	293
MTOML63B2	0.35	0.25	302
MTOML63C2	0.50	0.37	324
MTOML71A2	0.50	0.37	334
MTOML71B2	0.75	0.55	357
MTOML71C2	1	0.75	370
MTOML80A2	1	0.75	385
MTOML80B2	1.5	1.1	403
MTOML80C2	2	1.5	423
MTOML90LB2 ▲*	4	3	597
MTOML132MB2 ▲*	20	15	1780
MTOML160LB2 ▲*	30	22	4074

4 POLES - 1800 RPM

TYPE	HP	KW	LIST
MTOML56A4	0.12	0.09	286
MTOML63A4	0.18	0.135	302
MTOML63B4	0.25	0.185	313
MTOML63C4	0.35	0.25	333
MTOML71A4	0.35	0.25	339
MTOML71B4	0.50	0.37	348
MTOML71C4	0.75	0.55	366
MTOML80A4	0.75	0.55	390
MTOML80B4	1	0.75	418
MTOML80C4	1.5	1.1	478
MTOML90LB4 ▲*	2.5	1.85	575
MTOML100LC4 ▲*	5.5	4	775

*Higher horse power ratings in smaller frames = service factor 1.0

6 POLES - 1200 RPM

TYPE	HP	KW	LIST
MTOML63A6	0.18	0.135	350
MTOML71A6	0.25	0.185	363
MTOML71B6	0.35	0.25	383
MTOML80A6	0.50	0.37	425
MTOML80B6	0.75	0.55	456
HIGH TORQUE MOTORS			
MTOML90SA6	1	0.75	517
MTOML90LA6	1.5	1.1	544
MTOML100LA6	2	1.5	815
MTOML112MA6	3	2.2	1097
MTOML132SA6	4	3	1585
MTOML132MA6 ▲*	5.5	4	1757
MTOML132MB6	7.5	5.5	1874
MTOML160MA6	10	7.5	3082
MTOML160LA6	15	11	3747
MTOML180MA6	20	15	5541

8 POLES - 900 RPM

TYPE	HP	KW	LIST
MTOML71A8	0.18	0.13	455
MTOML80A8	0.25	0.18	490
MTOML80B8	0.35	0.25	540
MTOML90SA8	0.50	0.37	582
MTOML90LA8	0.75	0.55	587
MTOML100LA8	1	0.75	809
MTOML100LB8	1.5	1.1	881
MTOML112MA8	2	1.5	1084
MTOML132SA8	3	2.2	1888
MTOML132MA8	4	3	1908
MTOML160MA8	5.5	4	3086
MTOML160LA8	7.5	5.5	3293
MTOML160LB8	10	7.5	3853

Please note: prices are subject to change without notice.



Two speed motors

TYPE DPOML

CSA APPROVED
UL APPROVED
ISO 9001 REGISTERED
IEC



- Service Factor 1.15
- 230V or 575V or 460V
- 3Ph - 60Hz - TEFC - IP55
- Class F Insulation
- Removable feet
- Multi-mount design on 63 frame and higher
- ▲ 1.0 Service Factor

2/4 POLES - 3600/1800 RPM ONE WINDING - CONSTANT TORQUE

TYPE	HP	KW	LIST
DPOML56A2/4	.15/.1	.11/.07	369
DPOML63A2/4	.3/.2	.22/.15	394
DPOML71A2/4	.4/.3	.3/.22	417
DPOML71B2/4	.75/.5	.55/.37	427
DPOML80A2/4	.8/.6	.6/.45	493
DPOML80B2/4	1.1/.08	.8/.6	516
DPOML80C2/4	1.5/1	1.1/.75	543
DPOML90SA2/4	2/1.5	1.5/1.1	621
DPOML90LA2/4	3/2	2.2/1.5	649
DPOML100LA2/4	4/3	3/2.2	787
DPOML100LB2/4	5.5/4	4/3	890
DPOML112MA2/4	6/4.5	4.5/3.3	1250
DPOML132SA2/4	7.5/6	5.5/4.5	1980
DPOML132MA2/4	11/9	8.1/6.6	2260
DPOML160MA2/4	15/12	11/9	4220
DPOML160LA2/4	19/15	14/11	5200
DPOML180MA2/4	25/20	18.5/15	6850

4/8 POLES - 1800/900 RPM ONE WINDING - CONSTANT TORQUE

TYPE	HP	KW	LIST
DPOML71A4/8	.25/.12	.185/.09	452
DPOML80A4/8	.5/.28	.37/.2	525
DPOML80B4/8	.75/.4	.55/.3	585
DPOML90SA4/8	1/.5	.75/.37	656
DPOML90LA4/8	1.3/.7	1/.5	672
DPOML100LA4/8	1.9/.9	1.4/.66	855
DPOML112MB4/8	3/1.9	2.2/1.4	1216
DPOML132SA4/8	5/2.8	3.7/2	1980
DPOML132MA4/8	7/4	5.1/3	2290
DPOML160MA4/8	8/5.5	6/4	4200
DPOML160MB4/8	10/6.8	7.5/5	4600
DPOML160LA4/8	14/9	10/7	5500

2/8 POLES - 3600/900 RPM TWO WINDINGS

TYPE	HP	KW	LIST
DPOML80A2/8 ▲	.5/.12	.37/.09	980
DPOML80B2/8 ▲	.75/.2	.55/.15	1150
DPOML90SA2/8 ▲	1/.25	.75/.185	1190
DPOML90LA2/8 ▲	1.5/.35	1.1/.25	1490
DPOML100LA2/8 ▲	2.2/.6	1.6/.45	1600
DPOML112MA2/8 ▲	3.7/1	2.75/.75	1850
DPOML132MA2/8 ▲	5.5/2	4/1.5	2630

4/6 POLES - 1800/1200 RPM TWO WINDINGS

TYPE	HP	KW	LIST
DPOML71A4/6	.4/.3	.30/.22	630
DPOML80A4/6	.75/.5	.55/.37	720
DPOML90S4/6	1/.75	.75/.55	880
DPOML90L4/6	1.5/.1	1.1/.75	970
DPOML100LA4/6	2/1.2	1.5/.9	1350
DPOML112MB4/6	3/2	2.2/1.5	1650
DPOML132SA4/6	4.5/3	3.3/2.2	2190
DPOML132MA4/6	5/3.5	4/2.5	2290
DPOML132MB4/6	7.5/5.5	5.5/4	2630
DPOML160MA4/6	10/6.8	7.5/5	5090

2/6 POLES - 3600/1200 RPM TWO WINDINGS

TYPE	HP	KW	LIST
DPOML71A2/6 ▲	.35/.2	.25/.15	980
DPOML80A2/6 ▲	.5/.35	.35/.25	1150
DPOML90LA2/6 ▲	1.5/.35	1.1/.37	1350
DPOML100LA2/6 ▲	2.7/.1	2/.75	1500
DPOML112MA2/6 ▲	4/1.5	3/1.1	1945
DPOML132SA2/6 ▲	5.2	3.7/1.7	2780

6/8 POLES - 1200/900 RPM TWO WINDINGS

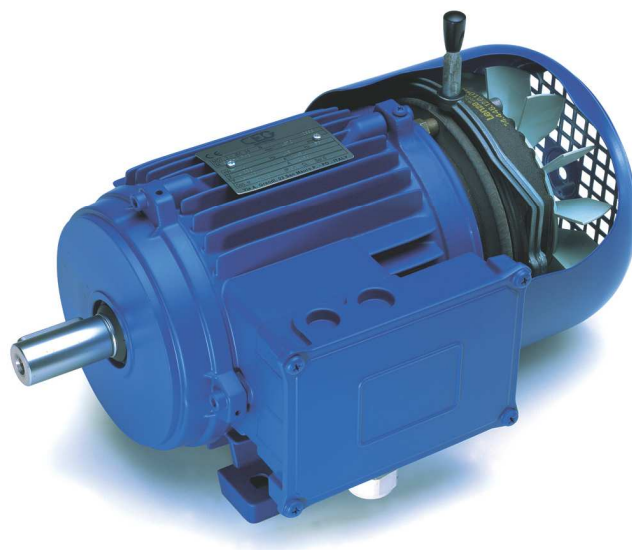
TYPE	HP	KW	LIST
DPOML80A6/8 ▲	.35/.19	.25/.14	1150
DPOML90A6/8 ▲	.75/.35	.55/.25	1390
DPOML100A6/8 ▲	1.3/.75	.95/.55	1500
DPOML112MA6/8 ▲	2/1	1.5/.75	2100
DPOML132SA6/8 ▲	3/1.5	2.2/1.5	3650
DPOML132MA6/8 ▲	4/2.5	3/1.85	4000



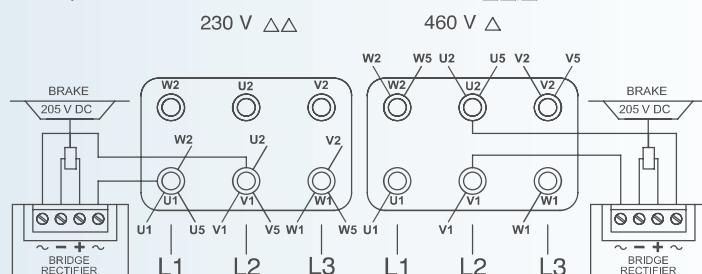
Brake motors

CEG can supply motors with three different types of brake, to be chosen according to the application:

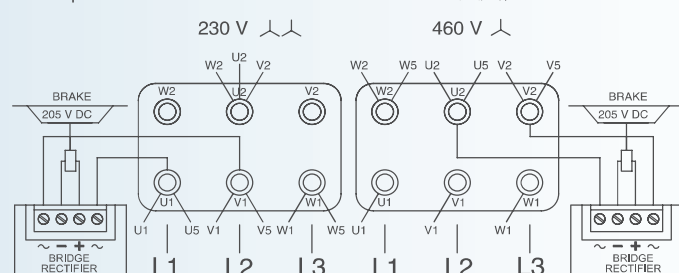
- 1. FPC type:** gradual electromagnetic brake powered by direct current, with a single braking surface (special order factory delivery)
- 2. FHC type:** electromagnetic brake with high torque powered by direct current, with a double braking surface (stock in North America)
- 3. FHA type:** electromagnetic brake with high torque powered by alternating current, with a double braking surface special order factory delivery



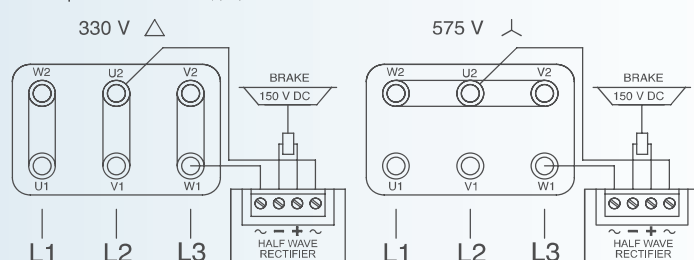
Three phase Brake motor with 6 studs and 9 wires $\Delta\Delta\Delta$



Three phase Brake motor with 6 studs and 9 wires $\Delta\Delta\Delta$



Three phase Brake Δ/Δ



WEIGHT

FRAME	KGS	LBS
56	4.3	9.5
63	6.5	11
71	10.3	22.7
80	19.5	43
90S	21	46.3
90L	24.5	54
100L	33	73
112M	43	95
132S	63.5	140
132M	79	174
160M	113	250
160L	134	296

Please note: prices are subject to change without notice.

High-torque DC brake MTFHC - DPFHC

PRODUCTION STANDARDS

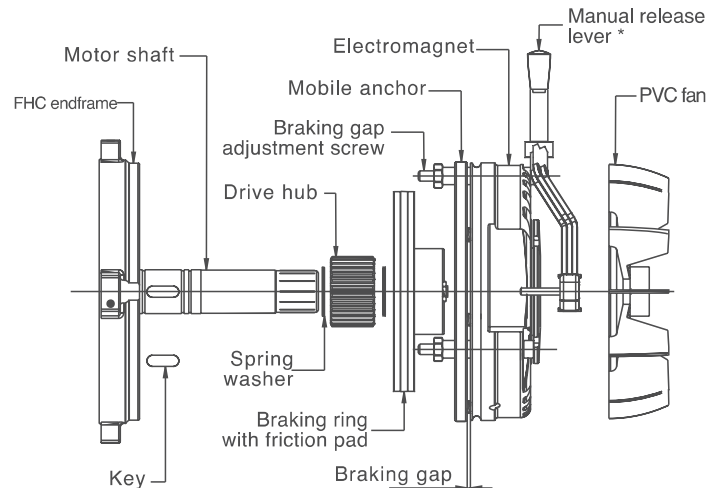
Mounting – construction form	Removable feet
Terminal box position	Multimount
Power supply	MT 230/460V or 575V 60 Hz
	230/460V suitable for 380V 50Hz with separate supply to rectifier
	DP 460V or 575V or 230 V 60 Hz
Brake coil DC with rectifier	205V DC (230/460V) 150V DC (330/575V)
Protection rating	IP54
Bearings	2 RS
Winding insulation	Class F
Connection cover	terminal box with lid (2 aluminium components FH type)
Motor clamping	bosses and bolts
Paint finish	BLUE RAL 5010
Fan cover	galvanized sheet steel
Service factor	1.15 (*unless otherwise stated)

This version has a double dry braking surface. Braking torque is provided by the thrust of an adjustable spring, with electromagnetic release controlled by magnets powered with direct current. The main characteristics of this model are as follows:

- silent operation;
- braking without axial shifting;
- negligible additional moment of inertia;
- possibility of fitting a hand release lever, on request (*).

This brake requires no maintenance apart from the periodic adjustment of braking gap made necessary by wear on the friction pad. This adjustment is made by turning the cylindrical screws located on the rear of the unit until the braking gap returns to the values indicated (see chart).

N.B. Other design features must be specified (brake voltage, connection through terminal board or separate).



Size	Brake size	Braking torque (NM)	Braking torque (ft. lbs)	Power (W)	Closing time (ms)	Release time (ms)	Braking gap (mm)
M63	06	4	3	20	17	35	0.2
M71	06	4	3	20	17	35	0.2
M80	08	8	6	25	35	65	0.2
M90	10	16	12	30	40	90	0.2
M100	12	32	24	40	50	120	0.3
M112	12	32	24	40	50	120	0.3
M132	14	60	44	50	90	180	0.3
M160	18	150	111	60	110	300	0.3
M180	20	260	191	75	200	400	0.3

Brake motors - 3 Phase DC rectified

TYPE MTFHC

CSA APPROVED
 UL APPROVED
 ISO 9001 REGISTERED
 IEC



- 230/460V or 575V
- 3Ph - 60Hz - TEFC - IP54
- Class F Insulation
- Fitted with Lenze DC Rectified Brake Applied Fail Safe Disc Brakes
- Removable Feet - Multi-mount design
- Hand Release Levers (available as optional extra)
- ▲ Service Factor 1.15 suitable for use at 380V 50Hz
- 1.0 Service Factor

2 POLES - 3600 RPM

TYPE	HP	KW	LIST
MTFHC63A2	0.25	0.185	703
MTFHC63B2	0.35	0.25	707
MTFHC71A2	0.50	0.37	822
MTFHC71B2	0.75	0.55	841
MTFHC80A2	1	0.75	962
MTFHC80B2	1.5	1.1	980
MTFHC90SA2	2	1.5	1202
MTFHC90SB2	2.5	1.85	1218
MTFHC90LA2	3	2.2	1260
MTFHC100LA2	4	3	1706
MTFHC100LB2	5.5	4	1771
MTFHC112MA2	5.5	4	2330
MTFHC112MB2	7.5	5.5	2433
MTFHC132SA2	7.5	5.5	3174
MTFHC132SB2	10	7.5	3303
MTFHC160MA2	15	11	5849
MTFHC160MB2	20	15	6296

4 POLES - 1800 RPM

TYPE	HP	KW	LIST
MTFHC63A4	0.18	0.135	712
MTFHC63B4	0.25	0.185	721
MTFHC71A4	0.35	0.25	822
MTFHC71B4	0.50	0.37	829
MTFHC71C4	0.75	0.55	848
MTFHC80A4	0.75	0.55	969
MTFHC80B4	1	0.75	998
MTFHC90SA4	1.5	1.1	1193
MTFHC90LA4	2	1.5	1235
MTFHC90LB4	2.5	1.85	1272
MTFHC100LA4	3	2.2	1672
MTFHC100LB4	4	3	1734
MTFHC112MA4	5.5	4	2422
MTFHC132SA4	7.5	5.5	3293
MTFHC132MA4	10	7.5	3635
MTFHC160MA4	15	11	6014
MTFHC160LA4	20	15	6609

HIGH EFFICIENCY
 BRAKE MOTORS
 AVAILABLE FROM
 THE FACTORY

6 POLES - 1200 RPM

TYPE	HP	KW	LIST
MTFHC63A6	0.17	0.12	756
MTFHC71A6	0.25	0.185	844
MTFHC71B6	0.35	0.25	862
MTFHC80A6	0.50	0.37	1004
MTFHC80B6	0.75	0.55	1037
MTFHC90SA6	1	0.75	1207
MTFHC90LA6	1.5	1.1	1244
MTFHC100LA6	2	1.5	1824
MTFHC112MA6	3	2.2	2477
MTFHC132SA6	4	3	3578
MTFHC132MA6	5.5	4	3780
MTFHC132MB6	7.5	5.5	3945
MTFHC160MA6	7.5	5.5	4650

8 POLES - 900 RPM

TYPE	HP	KW	LIST
MTFHC80A8	0.25	0.17	1094
MTFHC80B8	0.35	0.25	1149
MTFHC90SA8	0.50	0.37	1380
MTFHC90LA8	0.75	0.55	1394
MTFHC100LA8	1	0.75	1853
MTFHC100LB8	1.5	1.1	1924
MTFHC112MA8	2	1.5	2504
MTFHC132SA8	3	2.2	3985
MTFHC132MA8	4	3	4046

ALSO AVAILABLE;
 SPECIAL VOLTAGE AND FREQUENCY
 LARGER RATINGS

Please note: prices are subject to change without notice.

Two speed brake motors - DC rectified

TYPE DPFHC

CSA APPROVED
UL APPROVED
ISO 9001 APPROVED



- Service Factor 1.15
- 230V or 460V or 575V
- 3Ph - 60Hz - TEFC - IP54
- Class F Insulation
- Fitted with Lenze DC Rectified Brake
- Removable feet - Multi-mount design
- Hand Release Levers (available as optional extra)
- ▲ Service Factor 1.0

2/4 POLES - 3600/1800 RPM ONE WINDING - CONSTANT TORQUE

TYPE	HP	KW	LIST
DPFHC63A2/4	.3/.2	.22/.15	930
DPFHC71A2/4	.4/.3	.3/.22	1100
DPFHC71B2/4	.75/.5	.55/.37	1190
DPFHC80A2/4	.8/.6	.6/.45	1175
DPFHC80B2/4	1.1/.8	.8/.6	1255
DPFHC80C2/4	1.5/1	1.1/.75	1300
DPFHC90SA2/4	2/1.5	1.5/1.1	1450
DPFHC90LA2/4	3/2	2.2/1.5	1580
DPFHC100LA2/4	4/3	3/2.2	1795
DPFHC100LB2/4	5.5/4	4/3	1895
DPFHC112MA2/4	6/4.5	4.5/3.3	2200
DPFHC132SA2/4	7.5/6	5.5/4.5	3650
DPFHC132MA2/4	11/9	8.1/6.6	4950
DPFHC160MA2/4	15/12	11/9	6990
DPFHC160LA2/4	19/15	14/11	7990

4/6 POLES - 1800/1200 RPM TWO WINDINGS

TYPE	HP	KW	LIST
DPFHC71A4/6	.4/.3	.30/.22	1300
DPFHC80A4/6	.75/.5	.55/.37	1450
DPFHC90SA4/6	1/.75	.75/.55	1720
DPFHC90LA4/6	1.5/1	1.1/.75	1890
DPFHC100LA4/6	2/1.2	1.5/.9	2050
DPFHC112MB4/6	3/2	2.2/1.5	2780
DPFHC132MA4/6	5.5/3.5	4/2.5	4100
DPFHC132MB4/6	7.5/5.5	5.5/4	4960

6/8 POLES - 1200/900 RPM TWO WINDINGS

TYPE	HP	KW	LIST
DPFHC80A6/8 ▲	.35/.19	.25/.14	1360
DPFHC90LA6/8 ▲	.75/.35	.55/.25	1490
DPFHC100LA6/8 ▲	1.3/.75	.95/.55	1990
DPFHC112MA6/8 ▲	2/1.	1.5/.75	3290
DPFHC132SA6/8 ▲	3/1.5	2.2/1.1	3990
DPFHC132MA6/8 ▲	4/2.5	3/1.85	4250

4/8 POLES - 1800/900 RPM ONE WINDING - CONSTANT TORQUE

TYPE	HP	KW	LIST
DPFHC71B4/8	.25/.12	.185/.09	1120
DPFHC80A4/8	.5/.28	.37/.2	1290
DPFHC80B4/8	.75/.4	.55/.3	1390
DPFHC90SA4/8	1/.5	.75/.37	1520
DPFHC90LA4/8	1.35/.7	.1/.5	1690
DPFHC100LA4/8	1.9/.9	1.4/.66	1890
DPFHC112MA4/8	3/1.9	2.2/1.4	2460
DPFHC132SA4/8	5/2.8	3.7/2	3650
DPFHC132MA4/8	7/4	5.1/3	4990
DPFHC160MA4/8	8/5.5	6/4	6990
DPFHC160MB4/8	10/6.8	7.5/5	7550
DPFHC160LA4/8	14/9	10/7	7990

2/8 POLES - 3600/900 RPM TWO WINDINGS

TYPE	HP	KW	LIST
DPFHC80A2/8 ▲	.5/.12	.37/.09	1750
DPFHC80B2/8 ▲	.75/.2	.55/.15	1850
DPFHC90SA2/8 ▲	1/.25	.75/.185	1950
DPFHC90LA2/8 ▲	1.5/.35	1.1/.25	2050
DPFHC100LA2/8 ▲	2.2/.6	1.6/.45	2200
DPFHC112MA2/8 ▲	3.7/1	2.7/.75	2990
DPFHC132MA2/8 ▲	5.5/2	4/1.5	3950

ALSO AVAILABLE;
SPECIAL VOLTAGE AND FREQUENCY
LARGER RATINGS

Gradual DC brake MTFPC - DPFPC

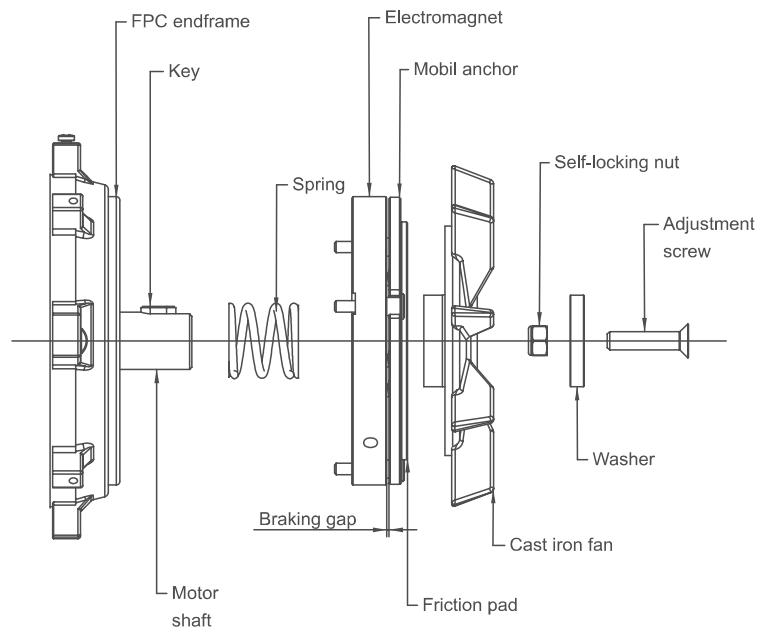
PRODUCTION STANDARDS

Mounting – construction form	Removable feet
Terminal box position	Multimount
Power supply	MT 230/400V or 575V
	380V 50 Hz
	DP 460V or 575V or 230V 60 Hz
Brake power supply (supplied disconnected)	230V (400V for Pn > 3kW)
Voltage rectifier	“AS” type
Protection rating	IP54
Bearings	2 RS
Winding insulation	Class F
Connection cover	terminal box with lid (2 aluminium components)
Motor clamping	bosses and bolts
Paint finish	BLUE RAL 5010
Fan cover	galvanized sheet steel
Service factor	S1

The main characteristic of this type of brake is its soft and gradual braking, which makes it particularly suitable for application on machines with very high inertial masses, where abrupt stops could subject the structure to dangerous stresses. The FPC brake has a lower braking torque and longer stopping times than the other brake types (proportional to the mass inertia of the load). This is achieved with a single braking surface and the higher mass inertia given by the cast iron fan, which is an integral part of the brake. The brake is powered by direct current. The braking gap is regulated with the adjustment screws located at the non-drive end of the motor shaft, with no need for the fan cover to be removed (see exploded diagram over and diagram inside every motor of this type).

N.B. Other design features must be specified (brake voltage, connection through terminal board or separate).

The standard voltage rectifier or power supply unit may be modified for special requirements (rapid opening and/or closing, anti-interference filter).



Size	Braking torque (Nm)	Braking torque (ft.lbs)	Power (W)	Closing time (ms)	Release time (ms)	Braking gap (mm)
M63	2.5	3.3	15	20	40	0.2
M71	4	5.3	15	15	100	0.2
M80	9	12	20	15	120	0.2
M90	9.5	12.7	20	15	120	0.25
M100	12	16	30	10	200	0.25
M112	12.5	16.6	30	10	200	0.25
M132	23	30.6	30	10	200	0.3
M160	23	30.6	60	13	215	0.3

Please note: prices are subject to change without notice.

Compact Brake motors - 3 Phase DC rectified

TYPE MTFPC

CSA APPROVED
 UL APPROVED
 ISO 9001 REGISTERED
 IEC



- Frame length same as standard 3 phase
- 230/460V or 575V
- 3Ph - 60Hz - TEFC - IP55
- Class F Insulation
- Removable Feet - Multi-mount design
- Service Factor 1.15 suitable for use at 380V 50Hz 1.0 Service Factor

2 POLES - 3600 RPM

TYPE	HP	KW	LIST
MTFPC63A2	0.25	0.185	630
MTFPC63B2	0.35	0.25	660
MTFPC71A2	0.50	0.37	700
MTFPC71B2	0.75	0.55	725
MTFPC80A2	1	0.75	820
MTFPC80B2	1.5	1.1	860
MTFPC90SA2	2	1.5	990
MTFPC90LA2	3	2.2	1150
MTFPC100LA2	4	3	1290
MTFPC100LB2	5.5	4	1390
MTFPC112MA2	5.5	4	1690
MTFPC112MB2	7.5	5.5	1780
MTFPC132SA2	7.5	5.5	1990
MTFPC132SB2	10	7.5	2100

4 POLES - 1800 RPM

TYPE	HP	KW	LIST
MTFPC63A4	0.18	0.135	630
MTFPC63B4	0.25	0.185	660
MTFPC71A4	0.35	0.25	700
MTFPC71B4	0.50	0.37	725
MTFPC71C4	0.75	0.55	820
MTFPC80A4	0.75	0.55	860
MTFPC80B4	1	0.75	990
MTFPC90SA4	1.5	1.1	1100
MTFPC90LA4	2	1.5	1150
MTFPC90LB4	2.5	1.85	1290
MTFPC100LA4	3	2.2	1390
MTFPC100LB4	4	3	1690
MTFPC112MA4	5.5	4	1780
MTFPC132SA4	7.5	5.5	1990
MTFPC132MA4	10	7.5	2100

6 POLES - 1200 RPM

TYPE	HP	KW	LIST
MTFPC63A6	0.17	0.12	700
MTFPC71A6	0.25	0.185	740
MTFPC71B6	0.35	0.25	780
MTFPC80A6	0.50	0.37	830
MTFPC80B6	0.75	0.55	920
MTFPC90SA6	1	0.75	1150
MTFPC90LA6	1.5	1.1	1290
MTFPC100LA6	2	1.5	1490
MTFPC112MA6	3	2.2	1720
MTFPC132SA6	4	3	2150
MTFPC132MA6	5.5	4	2290
MTFPC132MB6	7.5	5.5	2500

8 POLES - 900 RPM

TYPE	HP	KW	LIST
MTFPC80A8	0.25	0.17	830
MTFPC80B8	0.35	0.25	920
MTFPC90SA8	0.50	0.37	990
MTFPC90LA8	0.75	0.55	1150
MTFPC100LA8	1	0.75	1290
MTFPC100LB8	1.5	1.1	1490
MTFPC112MA8	2	1.5	1720
MTFPC132SA8	3	2.2	2290
MTFPC132MA8	4	3	2560

AVAILABLE BY FACTORY ORDER

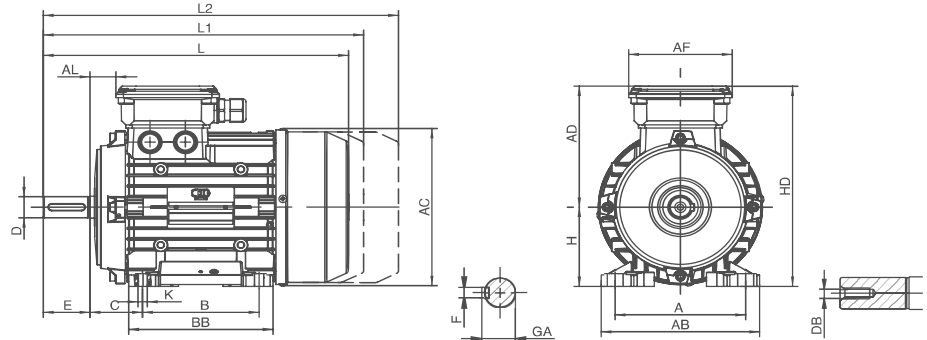
Dimensions of construction form

B3 and B5 MT-DP-FPC-FHC

B3 MT-DP-FPC-FHC

(B6 - B7 - B8 - V5 - V6)

L1 = Dimension with compact brake
L2 = Dimension with brake

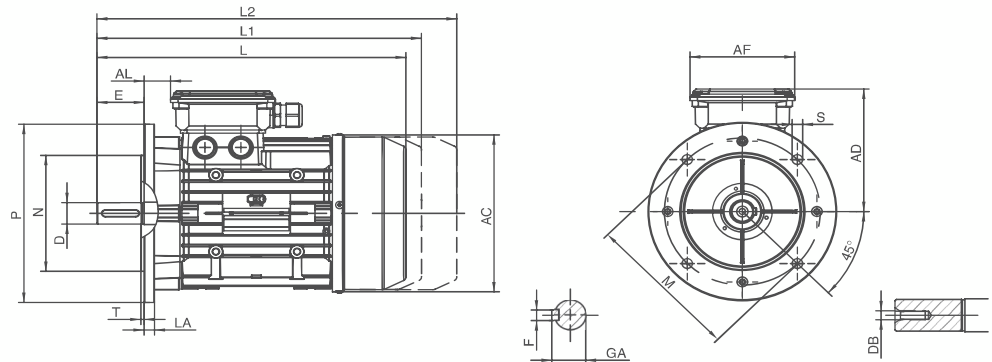


Size	A	AB	B	BB	C	D	E	H	HD	L	L1	L2	K	AC	AD	AF	AL	F	GA	DB
M56	90	109	71	91	36	9	20	56	168	187		209	6	115	112	93	13	3	10	M3
M63	100	120	80	106	40	11	23	63	180	214	249	249	7	123	117	93	19	4	13	M4
M71	112	136	90	108	45	14	30	71	196	245	248	286	8	147	125	93	24	5	16	M5
M80	125	160	100	125	50	19	40	80	213	279	279	332	10	165	133	111	23	6	22	M6
M90S	140	175	100	131	56	24	50	90	227	305	305	357	10	181	137	111	28	8	27	M8
M90L	140	175	125	156	56	24	50	90	227	330	330	382	10	181	137	111	28	8	27	M8
M100	160	200	140	170	63	28	60	100	247	370	370	442	11	198	147	111	42	8	31	M10
M112	190	225	140	177	70	28	60	112	272	385	385	447	11	222	160	111	43	8	31	M10
M132S	216	260	140	181	89	38	80	132	334	460	460	534	11	264	202	133	47	10	41	M12
M132M	216	260	178	220	89	38	80	132	334	500	500	574	11	264	202	133	47	10	41	M12
M160M	253	318	209	260	109	42	110	160	392	610	770	770	14	317	232	186	52.5	12	45	M16
M160L	253	318	253	304	109	42	110	160	392	645	805	805	14	317	232	186	52.5	12	45	M16
M180M	279	345	241	291	121	48	110	180	440	710	870	870	13	352	260	185	54	14	51.5	M16
M180L	279	345	279	330	121	48	110	180	440	710	870	870	13	352	260	185	54	14	51.5	M16

B5 MT-DP-FPC-FHC

(V1 - V3)

L1 = Dimension with compact brake
L2 = Dimension with brake



Size	P	N	M	T	S	D	E	F	GA	L	L1	L2	LA	AD	AF	AL	AC	DB
M56	120	80	100	2.5	7	9	20	3	10.2	187		209	8	112	93	13	115	M3
M63	140	95	115	2.5	9.5	11	23	4	12.5	214	249	249	10	117	93	19	123	M4
M71	160	110	130	3	9	14	30	5	16	242	248	286	9	125	93	24	147	M5
M80	200	130	165	3	12	19	40	6	21.5	279	279	332	10.5	138	111	23	165	M6
M90S	200	130	165	3	12	24	50	8	27	305	305	357	10.5	148	111	28	181	M8
M90L	200	130	165	3	12	24	50	8	27	330	330	382	10.5	148	111	28	181	M8
M100L	250	180	215	4	14.5	28	60	8	31	370	370	442	14	156	111	42	198	M10
M112M	250	180	215	4	14	28	60	8	31	385	385	447	14	159	111	43	222	M10
M132S	300	230	265	4	14	38	80	10	41	460	460	534	20	193	133	47	264	M12
M132M	300	230	265	4	14	38	80	10	41	500	500	574	20	193	133	47	264	M12
M160M	350	250	300	5	18	42	110	12	45	610	770	770	15	232	186	52.5	317	M16
M160L	350	250	300	5	18	42	110	12	45	645	805	805	15	235	186	52.5	317	M16
M180M	350	250	300	5	18.5	48	110	14	51.5	710	870	870	20	260	185	54	352	M16
M180L	350	250	300	5	18.5	48	110	14	51.5	710	870	870	20	260	185	54	352	M16

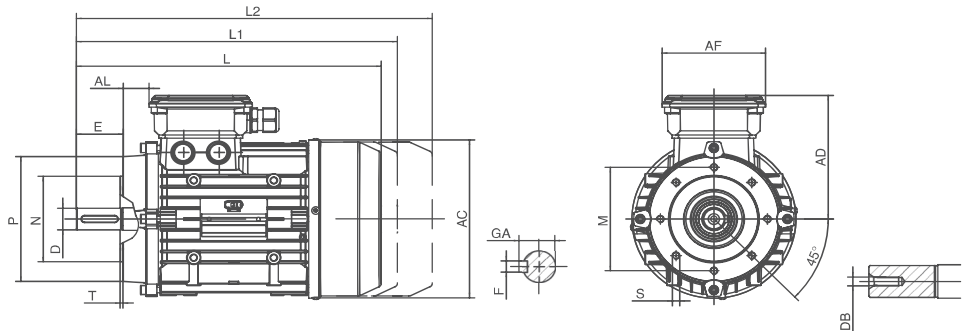
Dimensions of construction form

B14 MT-DP-FPC-FHC

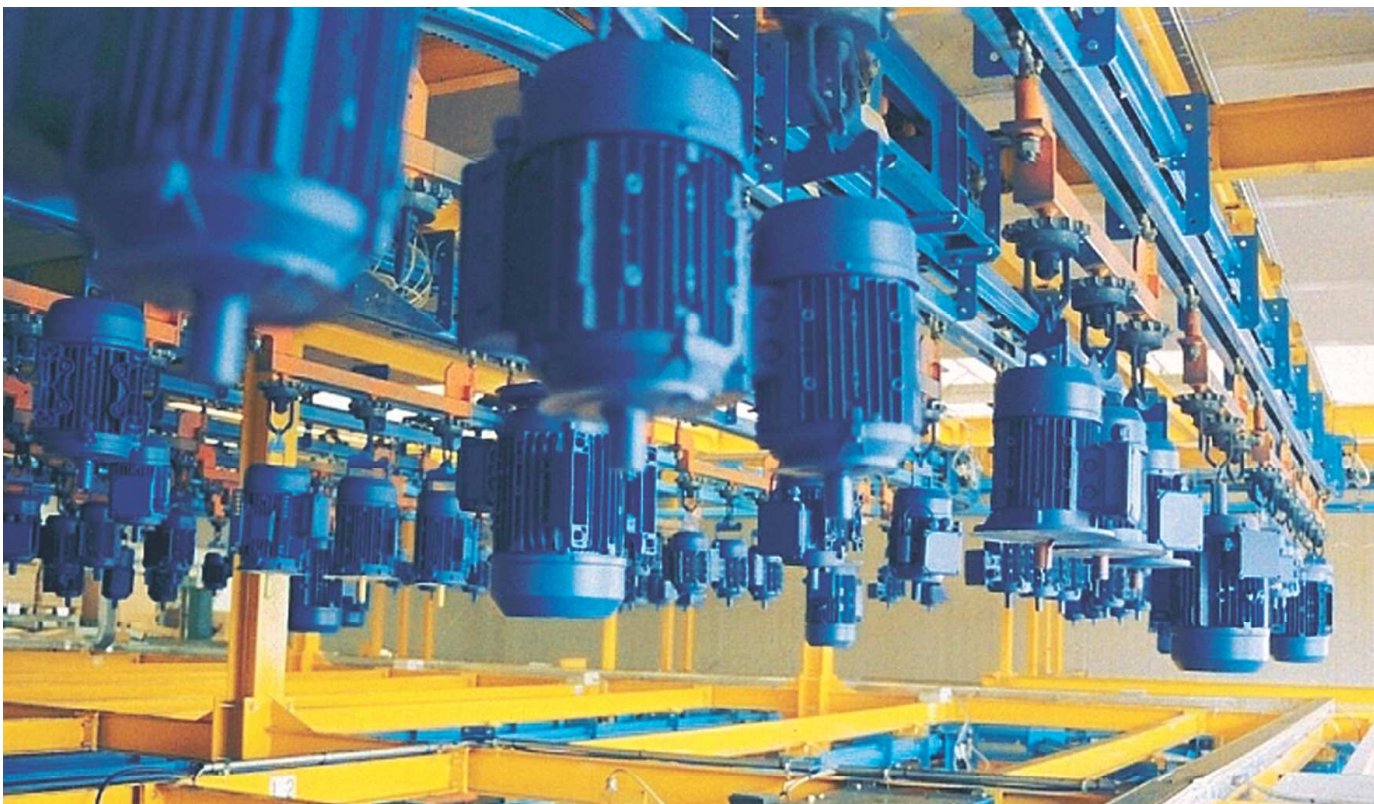
B14 MT-DP-FPC-FHC

(V18 - V19)

L1 = Dimension with compact brake
L2 = Dimension with brake



Size	P	N	M	T	S	D	E	F	GA	L	L1	L2	AD	AF	AL	AC	DB
M56	80	50	65	2.5	M5	9	20	3	10.2	187		209	112	93	13	115	M3
M63	90	60	75	2.5	M5	11	23	4	12.5	214	249	249	117	93	19	123	M4
M71	105	70	85	3	M6	14	30	5	16	242	248	286	125	93	24	147	M5
M80	120	80	100	3	M6	19	40	6	21.5	279	279	332	133	111	23	165	M6
M90S	140	95	115	3	M8	24	50	8	27	305	305	357	148	111	28	181	M8
M90L	140	95	115	3	M8	24	50	8	27	330	330	382	148	111	28	181	M8
M100	160	110	130	3.5	M8	28	60	8	31	370	370	442	156	111	42	198	M10
M112	160	110	130	3.5	M8	28	60	8	31	385	385	447	159	111	43	222	M10
M132S	200	130	165	4	M10	38	80	10	41	460	460	534	193	133	47	264	M12
M132M	200	130	165	4	M10	38	80	10	41	500	500	574	193	133	47	264	M12
M160M	250	180	215	5	M12	42	110	12	45	610	770	770	235	186	79	317	M16
M160L	250	180	215	5	M12	42	110	12	45	645	805	805	235	186	79	317	M16



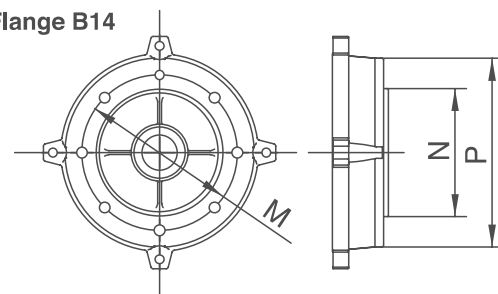
B5 and B14 flange dimensions



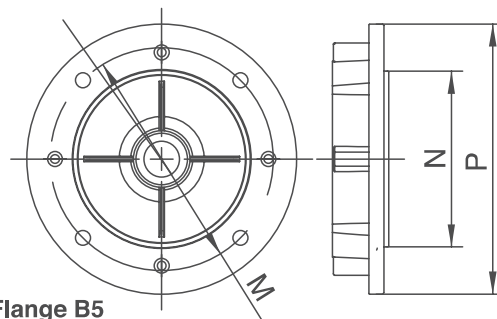
- * Indicates Shaft Modification will be necessary in order to install flange: At additional cost
- * Shaft diameter to be specified at time of order

“D” Flange B5					“C” Flange B14				
Frame Size	Flange Mount M	N	P	List	Frame Size	Flange Mount M	N	P	List
56	100	80	120	40	56	65	50	80	40
63	115	95	140	40	63	75	60	90	40
71	130	110	160	45	71	85	70	105	45
80	165	130	200	50	80	100	80	120	50
90	165	130	200	60	90S	115	95	140	60
90L	165	130	200	60	90L	115	95	140	60
100L	215	180	250	80	100L	130	110	160	80
112M	215	180	250	90	112M	130	110	160	90
132S	265	230	300	130	132S	165	130	200	130
132M	265	230	300	130	132M	165	130	200	130
160M	300	250	350	240	160M	215	180	250	240
160L	300	250	350	240	160L	215	180	250	240
180M	300	250	350	325					
180L	300	250	350	325					
200L/2	350	300	400	500					
200L	350	300	400	500					
225S	400	350	450	695					
225M/2	400	350	450	695					
225M	400	350	450	695					
250S/2	500	450	550	850					
250S	500	450	550	850					

“C” Flange B14



“D” Flange B5



ALTERNATIVE FLANGES

“D” Flange B5			
Frame	Increase	Reduction	List
63	*	56	64
71		63	64
80		63/71	72
90		71	88
100		71/80/90	144
112	*	71/80/90	144
132	*	110/112	208
160	*	132	650

“C” Flange B14			
Frame	Increase	Reduction	List
63	71/80	56	64
71	80/90	63	64
80	90/100	71	72
90	100/112	80	88
100	132	90	128
112	132		128

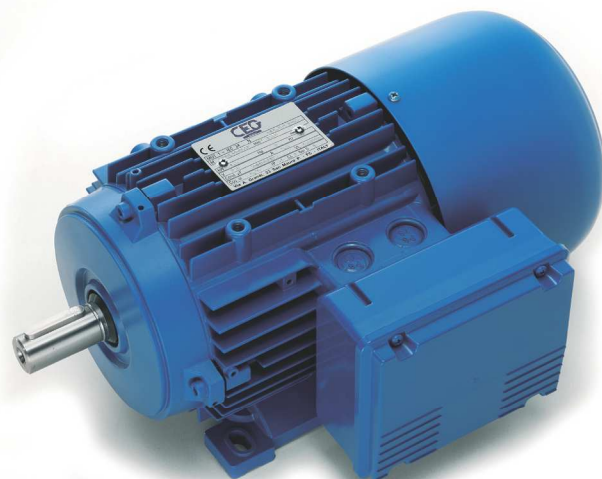
Please note: prices are subject to change without notice.



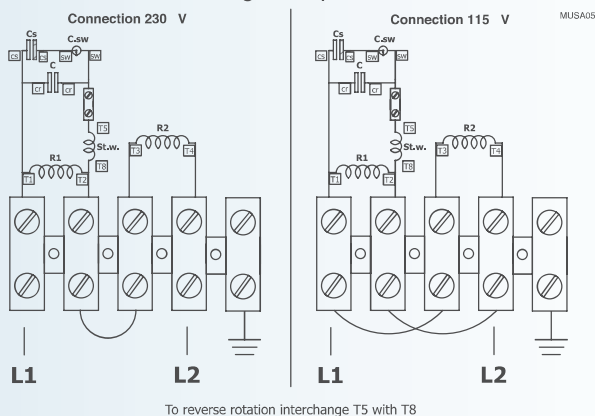
1 Phase motors

PRODUCTION STANDARDS

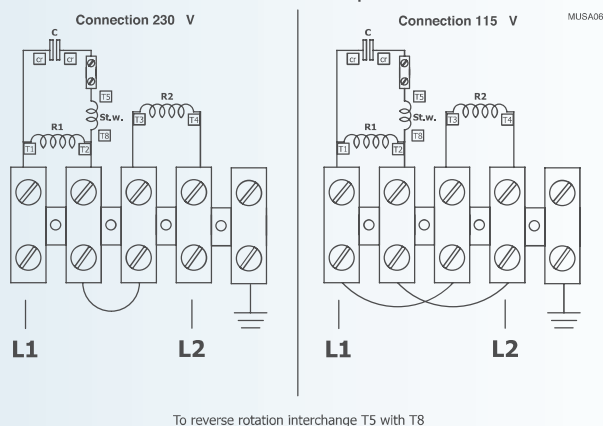
Mounting-construction form	Removable feet
Terminal box position (multi-mount)	Multimount
Power supply	230V 60 Hz 115V 60 Hz
Run Capacitor	external, permanently connected
Protection rating	IP55
Bearings	ZZ
Winding insulation	Class F
Connection cover	terminal box with lid
Motor clamping	bosses and bolts
Paint finish	BLUE RAL 5010
Fan cover	galvanized sheet steel
Service factor	1.0



High Torque



Standard Torque



WEIGHT

FRAME	KGS	LBS
56	3.6	8
63	5.5	12
71	8.4	18.5
80	13	29
90S	15	33
90L	19.5	43
100L	24.5	54

1 Phase motors

TYPE DMDSG

- *CSA APPROVED*
- *UL APPROVED*
- *ISO 9001 REGISTERED*
- *CE MARK*



TYPE DMOML

- Aluminum frame
- Multimount design
- Removable base
- 3Ph - 60Hz - TEFC - IP55
- Class F Insulation

HIGH STARTING TORQUE

2 POLES - 3600 RPM

TYPE	HP	KW	VOLT	AMPS	LIST
DMDSG63A2	0.25	0.18	115/230	2.8/1.4	685
DMDSG63B2	0.33	0.25	115/230	4.4/2.2	713
DMDSG71A2	0.50	0.37	115/230	6.9/3.4	725
DMDSG71B2	0.75	0.55	115/230	8.7/4.3	746
DMDSG80A2	1	0.75	115/230	10.5-5.3	717
DMDSG80B2	1.5	1.1	115/230	14/7	941
MMDSG90SA2	2	1.5	230	18/9	993
MMDSG90LA2	2.5	1.85	230	10.7	1211
MMDSG90LB2	3	2.2	230	13.7	1211
MMDSG100LA2	3.5	2.5	230	15	1220

LOW STARTING TORQUE

2 POLES - 3600 RPM

TYPE	HP	KW	VOLT	AMPS	LIST
DMOML56A2	0.15	0.11	115/230	1.85/0.94	349
DMOML63A2	0.25	0.18	115/230	2.4/1.4	355
DMOML63B2	0.35	0.25	115/230	4.4/2.2	368
DMOML71A2	0.50	0.37	115/230	6.9/3.4	442
DMOML71B2	0.75	0.55	115/230	8.7/4.3	452
DMOML80A2	1	0.75	115/230	10.5/5.3	500
DMOML80B2	1.5	1.1	115/230	14/7	526
MMOML90SA2	2	1.5	230	19/9	698
MMOML90LA2	2.5	1.85	230	10.7	761
MMOML90LB2	3	2.2	230	13.7	787
MMOML100LA2	3.5	2.5	230	15	964

4 POLES - 1800 RPM

TYPE	HP	KW	VOLT	AMPS	LIST
DMDSG63A4	0.25	0.18	115/230	3/1.5	588
DMDSG71A4	0.33	0.25	115/230	4/2	605
DMDSG71B4	0.50	0.37	115/230	6/3	705
DMDSG80A4	0.75	0.55	115/230	6.6/3.5	771
DMDSG80B4	1	0.75	115/230	10.5/5.25	796
MMDSG90SA4	1.5	1.1	230	13.8/6.9	949
MMDSG90LA4	2	1.5	230	19/9.5	1007
MMDSG100LA4	2.5	1.85	230	12	1216
MMDSG100LB4	3	2.2	230	13	1266

4 POLES - 1800 RPM

TYPE	HP	KW	VOLT	AMPS	LIST
DMOML56A4	0.12	0.09	115/230	1.8/0.9	344
DMOML63A4	0.15	0.11	115/230	2.4/1.2	363
DMOML63B4	0.25	0.185	115/230	3/1.5	384
DMOML71A4	0.35	0.25	115/230	4/2	429
DMOML71B4	0.50	0.37	115/230	6/3	450
DMOML80A4	0.75	0.55	115/230	6.6/3.5	505
DMOML80B4	1	0.75	115/230	10.5/5.25	534
MMOML90SA4	1.5	1.1	230	13.8/6.9	695
MMOML90LA4	2	1.5	230	19/9.5	774
MMOML100LA4	2.5	1.85	230	12	996
MMOML100LB4	3	2.2	230	13	1004

6 POLES - 1200 RPM

TYPE	HP	KW	VOLT	AMPS	LIST
DMDSG71A6	0.25	0.18	115/230		890
DMDSG80A6	0.50	0.37	115/230		980
DMDSG90SA6	0.75	0.55	115/230		1300
DMDSG90LA6	1.0	0.75	115/230		1400

6 POLES - 1200 RPM

TYPE	HP	KW	VOLT	AMPS	LIST
DMOML71A6	0.25	0.18	115/230		580
DMOML80B6	0.50	0.37	115/230		690
DMOML90SA6	0.75	0.55	115/230		990
DMOML90LA6	1.0	0.75	115/230		1150

Please note: prices are subject to change without notice.

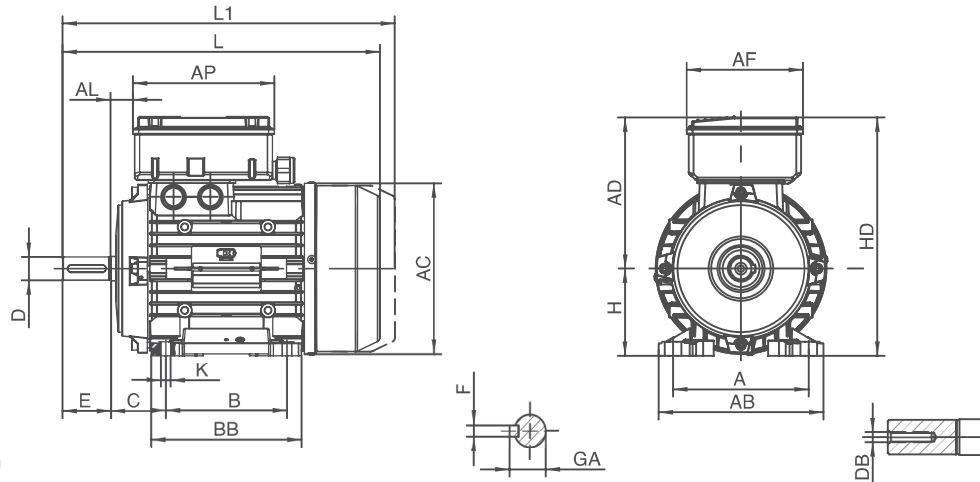
Dimensions of construction form

B3 and B5 MM-DMDSG

B3 MMOML=L MMDSG=LI

(B6 - B7 - B8 - V5 - V6)

L1 = Dimension with cap start/cap run

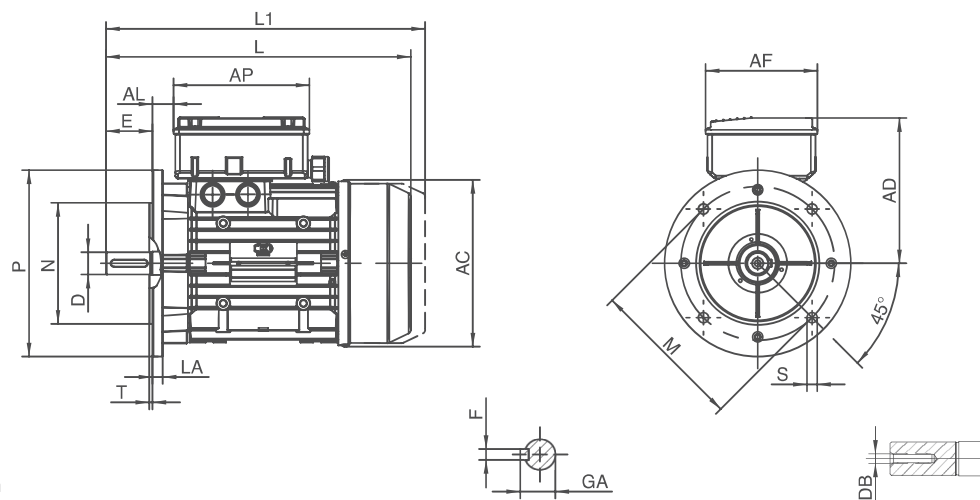


Size	A	AB	B	BB	C	D	E	H	HD	L	L1	K	AC	AD	AF	AP	AL	F	GA	DB
M63	100	120	80	106	40	11	23	63	187	214	240	7	123	124	92	121	19	4	13	M4
M71	112	136	90	108	45	14	30	71	203	245	280	8	147	132	92	121	24	5	16	M5
M80	125	160	100	125	50	19	40	80	235	279	290	9.5	165	155	119	146	17	6	22	M6
M90S	140	175	100	131	56	24	50	90	249	305	322	9.5	181	159	119	146	22	8	27	M8
M90L	140	175	125	156	56	24	50	90	249	330	347	9.5	181	159	119	146	22	8	27	M8
M100L	160	200	140	170	63	28	60	100	269	370	393	11	198	169	119	146	36	8	31	M10

B5 MMOML=L MMDSG=LI

(V1 - V3)

L1 = Dimension with cap start/cap run



Size	P	N	M	T	S	D	E	F	GA	L	L1	LA	AD	AF	AP	AL	AC	DB
M63	140	95	115	3	9.5	11	23	4	12.5	214	240	10	124	92	121	19	123	M4
M71	160	110	130	3	9.5	14	30	5	16	242	280	9	132	92	121	24	147	M5
M80	200	130	165	3.5	11.5	19	40	6	21.5	279	290	10.5	155	119	146	17	165	M6
M90S	200	130	165	3.5	11.5	24	50	8	27	305	322	10.5	159	119	146	22	181	M8
M90L	200	130	165	3.5	11.5	24	50	8	27	330	347	10.5	159	119	146	22	181	M8
M100	250	180	215	4	14	28	60	8	31	370	393	14	169	119	146	36	198	M10

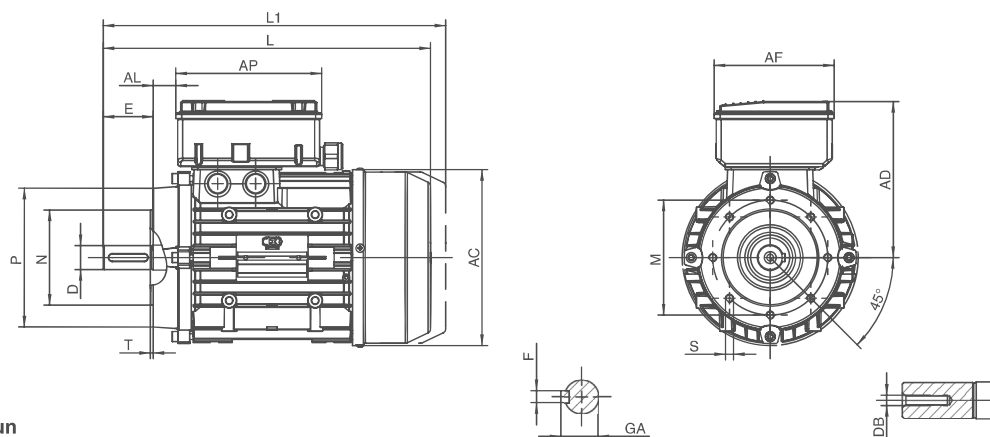
Dimensions of construction form

B14 MM-DMDSG

B14 MM-DMDSG

(V18 - V19)

L1 = Dimension with cap start/cap run



Size	P	N	M	T	S	D	E	F	FB	GA	GD	L	L1	AD	AF	AP	AL	AC	DB
M63	90	60	75	3	M5	11	23	4	15	12.5	4	214	240	124	92	121	19	123	M4
M71	105	70	85	3	M6	14	30	5	20	16	5	242	280	132	92	121	24	147	M5
M80	120	80	100	3.5	M6	19	40	6	30	21.5	6	279	290	155	119	146	17	165	M6
M90S	140	95	115	3.5	M8	24	50	8	40	27	7	305	322	159	119	146	22	181	M8
M90L	140	95	115	3.5	M8	24	50	8	40	27	7	330	347	159	119	146	22	181	M8
M100	160	110	130	4	M8	28	60	8	50	31	7	370	393	169	119	146	36	198	M10



Please note: prices are subject to change without notice.



Cast iron - 3 Phase motors

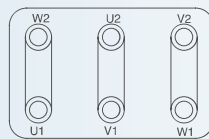
PRODUCTION STANDARDS

Mounting-construction form	IMB3
Terminal box position	Top terminal box (BS)
Power supply	460/790V-60 Hz 400/690V-50 Hz
Protection rating	IP55
Bearings	ZZ
Winding insulation	Class F
Connection cover	2 Aluminium components
Motor clamping	Bosses and bolts
Paint finish	BLUE RAL 5010
Service factor (60Hz)	1.15 (unless otherwise stated)



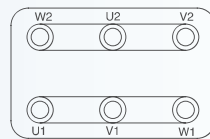
Three phase motors D-Y Δ/Y

460 V Δ



L1 L2 L3

790 V Y



L1 L2 L3

WEIGHT

FRAME	KGS	LBS
160M	91	201
160L	133	293
180M	142	313
180L	152	335
200L	255	562
225S	260	573
225M	285	629
250M	350	772
280S	490	1080
280M	525	1157
315S	742	1635
315M	885	1951
315L	1150	2535

Cast iron - 3 Phase motors

TYPE MTRED



- IP55
- Class F
- CE Marked Only
- Efficiency '2'

2 POLE - 3600 RPM

TYPE	HP	KW
MTRED160MA2	15	11
MTRED160MB2	20	15
MTRED160LA2	25	18.5
MTRED180M2	30	22
MTRED200LA2	40	30
MTRED200LB2	50	37
MTRED225M2	60	45
MTRED250M2	75	55
MTRED280S2	100	75
MTRED280M2	120	90
MTRED315S2	150	110
MTRED315M2	180	132
MTRED315LA2	215	160
MTRED315LB2	270	200

4 POLE - 1800 RPM

TYPE	HP	KW
MTRED160M4	15	11
MTRED160L4	20	15
MTRED180M4	25	18.5
MTRED180L4	30	22
MTRED200L4	40	30
MTRED225S4	50	35
MTRED225M4	60	45
MTRED250M4	75	55
MTRED280S4	100	75
MTRED280M4	120	90
MTRED315S4	150	110
MTRED315M4	180	132
MTRED315LA4	215	160
MTRED315LB4	270	200

6 POLE - 1200 RPM

TYPE	HP	KW
MTRED160M6	10	7.5
MTRED160L6	15	11
MTRED180L6	20	15
MTRED200LA6	25	18.5
MTRED200LB6	30	22
MTRED225M6	40	30
MTRED250M6	50	37
MTRED280S6	60	45
MTRED280M6	75	55
MTRED315S6	100	75
MTRED315M6	120	90
MTRED315LA6	150	110
MTRED315LB6	180	132

8 POLE - 900 RPM

TYPE	HP	KW
MTRED160MA8	5.5	4
MTRED160MB8	7.5	5.5
MTRED160L8	10	7.5
MTRED180L8	15	11
MTRED200L8	20	15
MTRED225S8	25	18.5
MTRED225M8	30	22
MTRED250M8	40	30
MTRED280S8	50	37
MTRED280M8	60	45
MTRED315S8	75	55
MTRED315M8	100	75
MTRED315LA8	120	90
MTRED315LB8	150	110

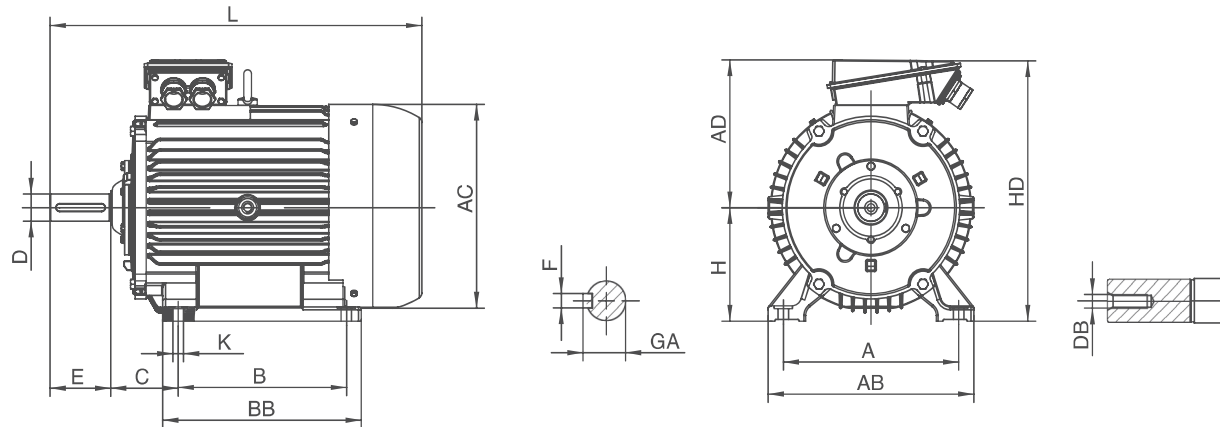
FACTORY ORDER
CALL FOR PRICING

Please note: prices are subject to change without notice.

Dimensions of construction form

B3 MT cast iron

B3 MT



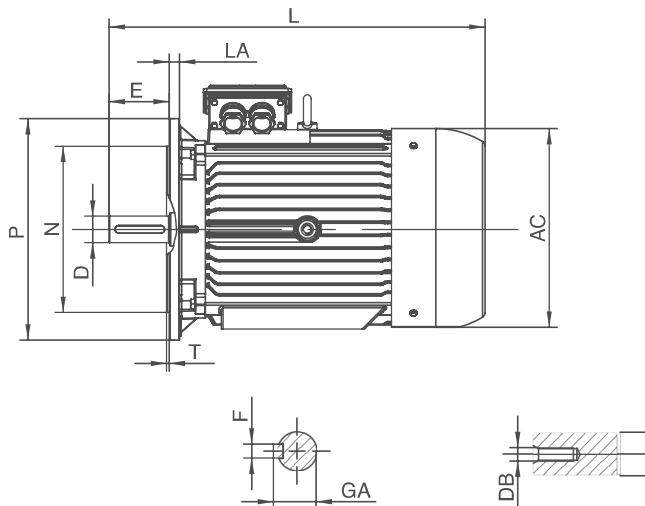
(B6 - B7 - B8 - V5 - V6)

Size	A	AB	B	BB	C	D	E	H	HD	AD	L	K	AC	AD	F	GA	GD	DB
M160 M 2-4-6-8P	254	292	210	246	108	42	110	160	347	187	567	15	287	115	12	45	8	M16
M160 L 2-4-6-8P	254	304	254	300	108	42	110	160	402	242	670	15	334	194	12	45	8	M16
M180 M 2-4P	279	320	241	328	121	48	110	180	422	242	700	15	334	194	14	51.5	9	M16
M180 L 4-6-8P	279	320	279	328	121	48	110	180	422	242	700	15	334	194	14	51.5	9	M16
M200 L 4-8P	318	368	305	360	133	55	110	200	460	260	670	19	375	198	16	59	10	M20
M200 LA 2-6P	318	368	305	360	121	55	110	200	460	260	670	19	375	198	16	59	10	M20
M200 LB 2-6P	318	395	305	375	133	55	110	200	490	290	781	19	410	210	18	59	10	M20
M225 S 2P	356	429	286	383	149	55	110	225	515	290	811	19	410	290	18	64	11	M20
M225 S 4-8P	356	425	286	380	149	60	140	225	515	290	811	19	410	290	18	64	11	M20
M225 M 2P	356	425	311	380	149	55	140	225	515	290	811	19	410	290	18	59	10	M20
M225 M 4-6-8P	356	425	311	380	149	60	140	225	515	290	811	19	410	290	18	59	10	M20
M250 M 2P	406	480	349	425	168	60	140	250	560	310	886	24	458	310	18	64	11	M20
M250 M 4-6-8P	406	480	349	425	168	65	140	250	560	310	886	24	458	310	18	69	11	M20
M280 S 2P	457	560	368	510	190	65	140	280	660	380	965	24	545	380	18	69	11	M20
M280 S 4-6-8P	457	560	368	510	190	75	140	280	660	380	965	24	545	380	20	79.5	12	M20
M280 M 2P	457	560	419	510	190	65	140	280	660	380	965	24	545	380	18	69	11	M20
M280 M 4-6-8P	457	560	419	510	190	75	140	280	660	380	965	24	545	380	20	79.5	12	M20
M315 S 2P	508	608	406	570	216	65	140	315	695	380	1080	28	620	380	18	69	11	M20
M315 S 4-6-8P	508	608	457	570	216	80	170	315	695	380	1180	28	620	380	22	85	14	M20
M315 M 2P	508	608	457	570	216	65	140	315	695	380	1150	28	620	380	18	69	11	M20
M315 M 4-6-8P	508	608	457	570	216	80	170	315	695	380	1180	28	620	380	22	85	14	M20
M315 LA 2P	508	608	508	620	216	65	140	315	815	500	1160	28	680	500	18	69	11	M20
M315 LB 2P	508	608	508	620	216	65	140	315	815	500	1260	28	680	500	18	69	11	M20
M315 L 4P	508	608	508	620	216	80	170	315	815	500	1290	28	680	500	22	85	14	M20
M315 L 6-8P	508	608	508	620	216	80	170	315	815	500	1190	28	680	500	22	85	14	M20

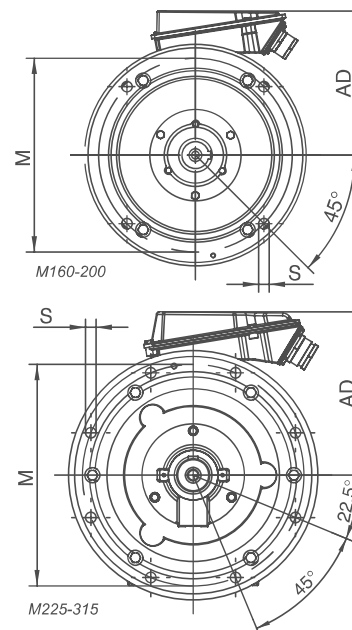
Dimensions of construction form

B5 MT cast iron

B5 MT



(V1 - V3)



Size	P	N	M	T	S	D	E	F	GA	L	LA	AD	AC	DB
M160 M 2-4-6-8P	350	250	300	5	19	42	110	12	45	567	19	115	287	M16
M160 L 2-4-6-8P	350	250	300	5	19	42	110	12	45	670	13	194	334	M16
M180 M 2-4P	350	250	300	5	19	48	110	14	51.5	700	13	194	334	M16
M180 L 4-6-8P	350	250	300	5	19	48	110	14	51.5	700	13	194	334	M16
M200 L 4-8P	400	300	350	5	19	55	110	16	59	670	15	198	375	M20
M200 L 2-6P	400	300	350	5	19	55	110	16	59	670	13	198	375	M20
M200 LB 2-6P	400	300	400	5	19	55	110	18	59	781	15	210	410	M20
M225 S 2P	450	350	400	5	19	55	110	16	59	787	16	294	410	M20
M225 S 4-8P	450	350	400	5	19	60	140	18	64	811	16	210	410	M20
M225 M 2P	450	350	400	5	19	55	110	18	59	781	15	210	410	M20
M225 M 4-6-8P	450	350	400	5	19	60	140	18	64	811	16	210	410	M20
M250 M 2P	550	450	500	5	19	60	140	18	64	886	22	210	458	M20
M250 M 4-6-8P	550	450	500	5	19	65	140	18	69	886	22	210	458	M20
M280 S 2P	550	450	500	5	19	65	140	18	69	965	18	210	545	M20
M280 S 4-6-8P	550	450	500	5	19	75	140	20	79.5	965	18	210	545	M20
M280 M 2P	550	450	500	5	19	65	140	18	69	965	18	210	545	M20
M280 M 4-6-8P	550	450	500	6	19	75	140	20	79.5	965	18	210	545	M20
M315 S 2P	660	550	600	6	24	65	140	18	69	1080	22	225	620	M20
M315 S 4-6-8P	660	550	600	6	24	80	170	22	85	1110	22	225	620	M20
M315 M 2P	660	550	600	6	24	65	140	18	69	1150	22	225	620	M20
M315 M 4-6-8P	660	550	600	6	24	80	170	22	85	1180	22	225	620	M20
M315 LA 2P	660	550	600	6	24	65	140	18	69	1160	22	415	680	M20
M315 LB 2P	660	550	600	6	24	65	140	18	69	1260	22	415	680	M20
M315 L 4P	660	550	600	6	24	80	170	22	85	1290	22	415	680	M20
M315 L 6-8P	660	550	600	6	24	80	170	22	85	1190	22	415	680	M20

Please note: prices are subject to change without notice.

UL approved saw arbor motors ETOML - EMOML

Saw arbor motors are available with UL approval

PRODUCTION STANDARDS

	with blade discs (B3)	with coupling flange (B14)
Coupling dimensions	See dimension diagrams (1): E48 p. 33 – E63 p. 34 – E80 p. 35	
Terminal box position	a) lateral, with connections towards fan (2) b) rear, on fan cover, only on E48 (2)	a) lateral, with connections towards fan (2) b) rear, on fan cover, only on E48 (2)
Power supply	ET from 110 to 760 V 50/60 Hz	ET from 110 to 760 V 50/60 Hz
Protection rating	IP55	IP55
Bearings	ZZ	ZZ
Winding insulation	class F	class F
Terminal box type	ET terminal box with lid (2 aluminium components)	ET terminal box with lid (2 aluminium components)
Motor clamping	with stays tie rods	with stays tie rods
Paint finish	unpainted	unpainted
Fan cover	E48 aluminium – E63 / E80 plastic	E48 aluminium – E63 / E80 plastic
Service factor	S6 - 60%	S6 - 60%

(1) Right-hand (DX) or left-hand (SX) thread to be specified with order

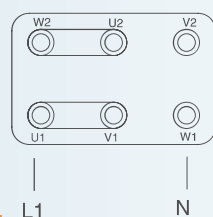
(2) Solution **a)** or **b)** to be specified with order

(3) Approved voltage range:

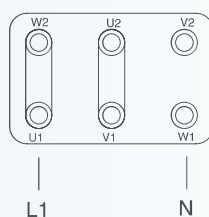
UL three-phase from 110 to 440 V delta,
from 190 to 760 V star
single-phase from 110 to 240 V (50 / 60 Hz)
specify required voltage with order.

Single Phase 6 studs wiring diagram

Rot A

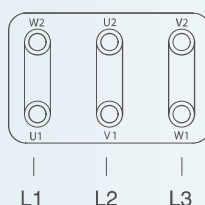


Rot B

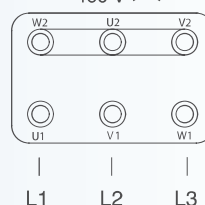


Three phase motors D-Y Δ/Y

230 V Δ



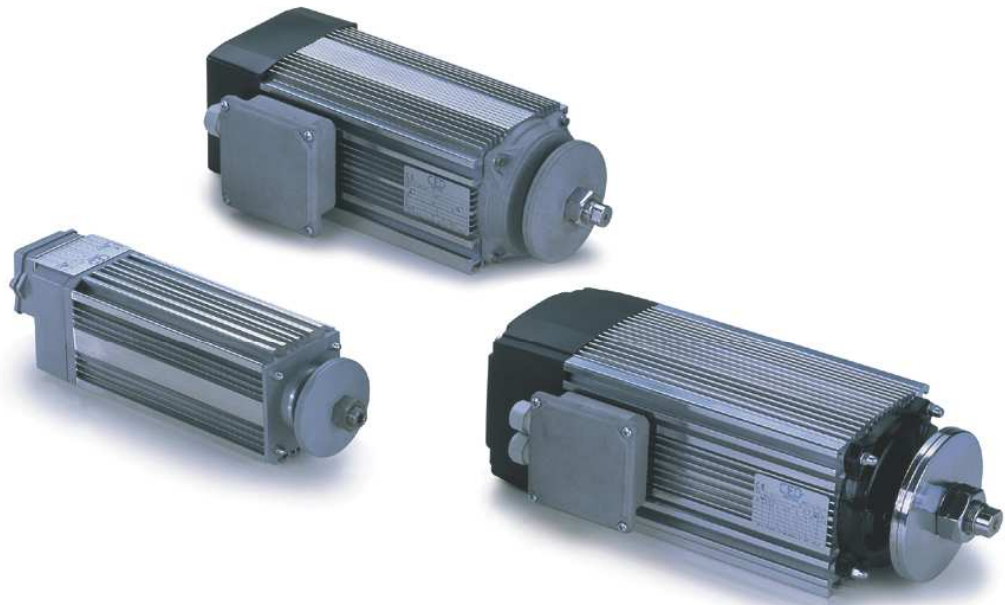
460 V Δ



WEIGHT

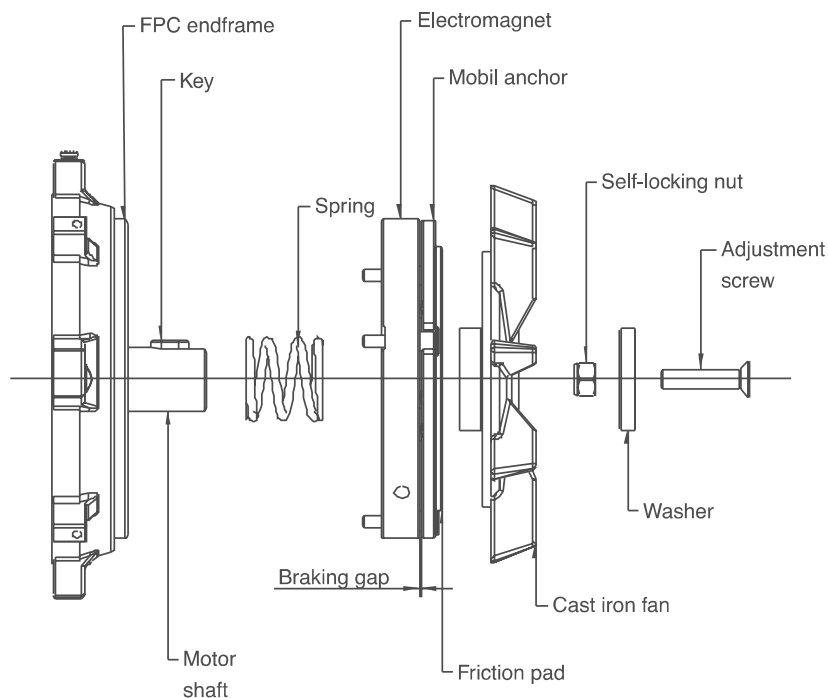
FRAME	KGS	LBS
E48S	7	15.4
E48M	9.5	21
E48L	10	22
E63S	13	29
E63L	17	37.5
E80S	27.5	61
E80M	31.5	69.5
E80L	39	86

Saw arbor motors



The FPC type brake can be mounted on all ratings of saw arbor motors type ET/EM on 63 and 80 frames.
Please contact sales office for pricing and availability of these motors.

Size	Braking torque (Nm)	Braking torque (ft.lbs)	Power (W)	Closing time (ms)	Release time (ms)	Braking gap (mn)
E63	4	5.3	18	40	100	0.2
E80	9	11.9	25	60	150	0.2

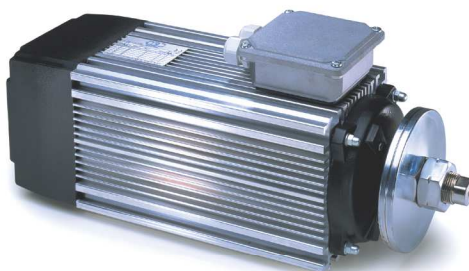




Saw arbor motors

TYPE ETSTD

- 230/460V or 575V
- IEC FRAMES 48S TO 80L
- 3 PH-60 HZ-IP55
- DUTY-S6-60%



UL APPROVED
ISO 9001 REGISTERED

3 PHASE MOTORS

2 POLE - 3600 RPM

TYPE	HP	KW	LIST
ETSTD48SA2	0.75	0.55	700
ETSTD48SB2	1	0.75	780
ETSTD48MA2	1.5	1.1	820
ETSTD48MB2	1.8	1.3	920
ETSTD48LA2	2	1.5	990
ETSTD63SA2	1.5	1.1	1150
ETSTD63SB2	2	1.5	1240
ETSTD63LA2	2.5	1.85	1290
ETSTD63LB2	3	2.2	1490
ETSTD63LC2	4	3	1520
ETSTD80SA2	4	3	1650
ETSTD80SB2	5.5	4	1750
ETSTD80MA2	7.5	5.5	1980
ETSTD80LA2	10	7.5	2450

4 POLE - 1800 RPM

TYPE	HP	KW	LIST
ETSTD48SA4	0.50	0.37	890
ETSTD48MA4	0.75	0.55	920
ETSTD48LA4	1	0.75	990
ETSTD63SA4	1	0.75	1130
ETSTD63SB4	1.5	1.1	1160
ETSTD63LA4	2	1.5	1270
ETSTD80SA4	3	2.2	1490
ETSTD80MA4	4	3	1520

TYPE EMSTD

- 230V - 1PH - 60 HZ
- IEC FRAMES 48S TO 80L
- IP55
- DUTY - S6 - 60%

1 PHASE MOTORS

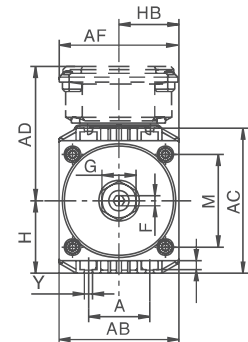
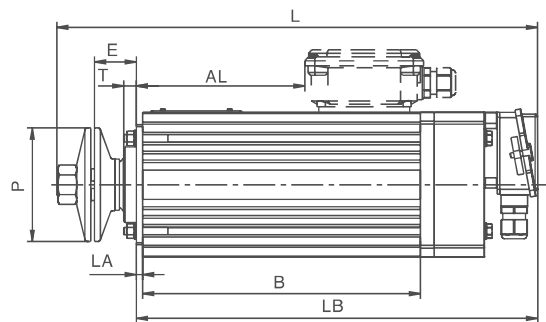
2 POLE - 3600 RPM

TYPE	HP	KW	LIST
EMSTD48SA2	0.50	0.37	900
EMSTD48SB2	0.75	0.55	1100
EMSTD48MA2	1	0.75	1190
EMSTD48MB2	1.5	1.1	1250
EMSTD63SA2	1.5	1.1	1480
EMSTD63LA2	2	1.5	1590
EMSTD63LB2	2.5	1.85	1650
EMSTD63LC2	3	2.2	1750
EMSTD80SA2	2	1.5	1990
EMSTD80SB2	3	2.2	2100
EMSTD80SC2	4	3	2250

These motors are specifically designed for applications requiring high power with smaller frames and lower shaft heights. They are suitable for applications such as: circular saws, pendulum saws, polishing machines, grinding machines and others.

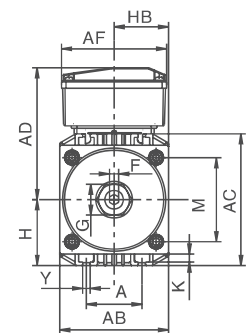
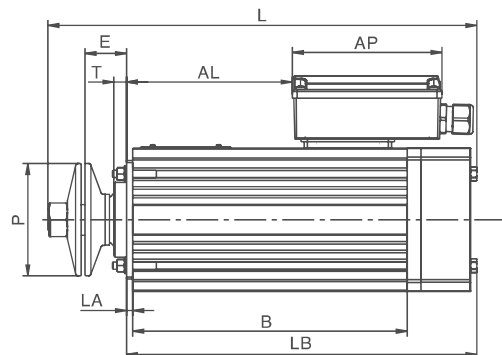
Dimensions of construction form saw arbor motors

DISTANCE BETWEEN SHAFTS 48 MM (E48), THREE-PHASE WITH BLADE DISCS (B3)

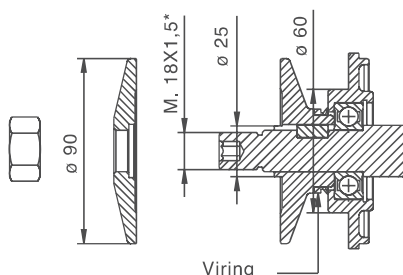


Size	A	AB	AC	B	E	F	G	H	HB	L	LB	K	Y	M	P	T	AD	AF	AL	LA
E48S	48	95	115	150	33	8	27	57.5	47.5	321	259	7	6	73.5	90	10	109	94	63	5
E48M	48	95	115	200	33	8	27	57.5	47.5	371	303	7	6	73.5	90	10	109	94	113	5
E48L	48	95	115	220	33	8	27	57.5	47.5	391	323	7	6	73.5	90	10	109	94	133	5

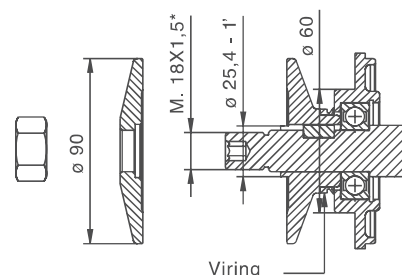
DISTANCE BETWEEN SHAFTS 48 MM (E48), SINGLE-PHASE WITH BLADE DISCS (B3)



Size	A	AB	AC	B	E	F	G	H	HB	L	LB	K	Y	M	P	T	AD	AF	AL	AP	LA
E48S	48	95	115	150	33	8	27	57.5	47.5	279	212	7	6	73.5	90	10	115	92	63	121	5
E48M	48	95	115	200	33	8	27	57.5	47.5	329	262	7	6	73.5	90	10	115	92	113	121	5



Detail of standard shaft end

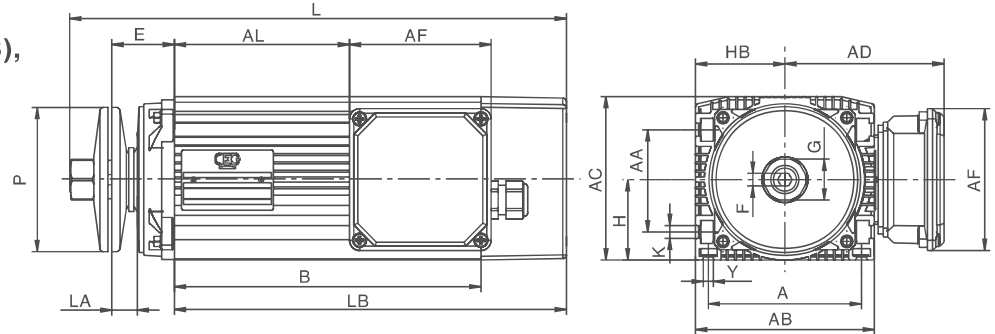


Detail of optional shaft end

Please note: prices are subject to change without notice.

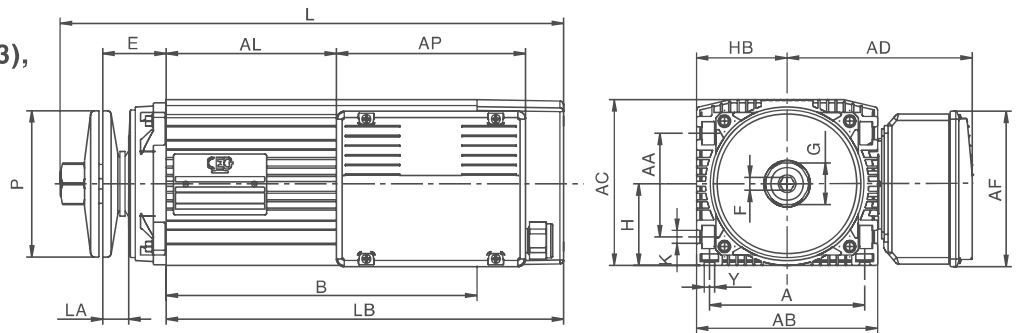
Dimensions of construction form saw arbor motors

DISTANCE BETWEEN SHAFTS 63/71 MM (E63), THREE-PHASE WITH BLADE DISCS (B3)

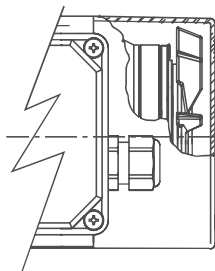


Size	A	AB	AC	AA	B	E	F	G	H	HB	L	LB	K	Y	P	AD	AF	AL	LA
E63S	120	140	128	80	180	49	10	32	63	71	330	247	10	8	114	125	111	77	20
E63L	120	140	128	80	240	49	10	32	63	71	390	307	10	8	114	125	111	137	20

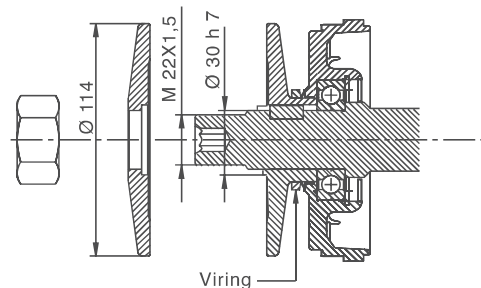
DISTANCE BETWEEN SHAFTS 63/71 MM (E63), SINGLE-PHASE WITH BLADE DISCS (B3)



Size	A	AB	AD	AA	B	E	F	G	H	HB	L	LB	K	Y	P	AD	AF	AP	AL	LA
E63S	120	140	128	80	180	49	10	32	63	71	330	247	10	8	114	143	120	146	71	20
E63L	120	140	128	80	240	49	10	32	63	71	390	307	10	8	114	143	120	146	131	20



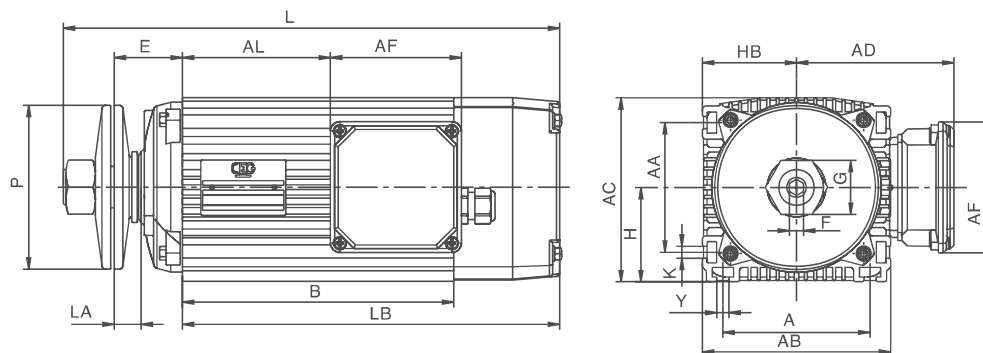
Detail of FPC brake application



Detail of standard shaft end

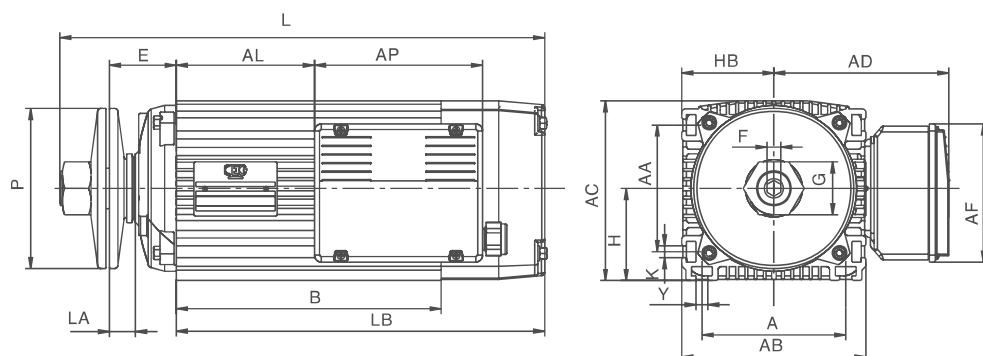
Dimensions of construction form saw arbor motors

DISTANCE BETWEEN SHAFTS 80 MM (E80), THREE-PHASE WITH BLADE DISCS (B3)

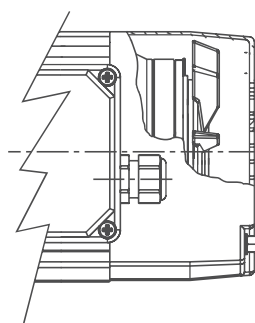


Size	A	AB	AC	AA	B	E	F	G	H	HB	L	LB	K	Y	P	AD	AF	AL	LA
E80S	125	160	156	110	230	58	12	46	80	80	421	320	10	10	140	135	111	125	23
E80M	125	160	156	110	280	58	12	46	80	80	471	370	10	10	140	135	111	175	23
E80L	125	160	156	110	350	58	12	46	80	80	541	440	10	10	140	135	111	245	23

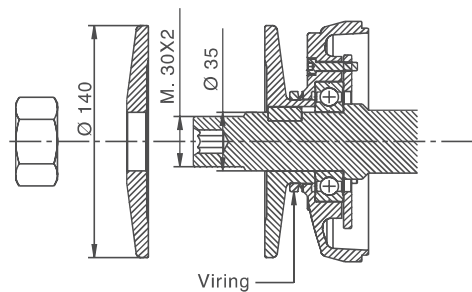
DISTANCE BETWEEN SHAFTS 80 MM (E80), SINGLE-PHASE WITH BLADE DISCS (B3)



Size	A	AB	AC	AA	B	E	F	G	H	HB	L	LB	K	Y	P	AD	AF	AL	AP	LA
E80S	125	160	156	110	230	58	12	46	80	80	421	320	10	10	140	152	119	120	146	23
E80M	125	160	156	110	280	58	12	46	80	80	471	370	10	10	140	152	119	170	146	23



Detail of FPC brake application



Detail of standard shaft end

Please note: prices are subject to change without notice.



Option for Inverter-duty Three-phase motors

Particular care is dedicated to these versions, based on standard motors, during the construction phase:

- phase separators
- double impregnation
- low losses laminations
- low balancing level

Fixed Speed ventilation (servoventilation): from sizes M71 to M132 servoventilation kits are used, with a single-phase voltage, housed in the fan cover. From sizes M160 to M315 a three-phase motor is installed inside the fan cover, with suitable characteristics for the application.

Electronic speed control equipment: encoder, resolver, tacho - generator - factory delivery

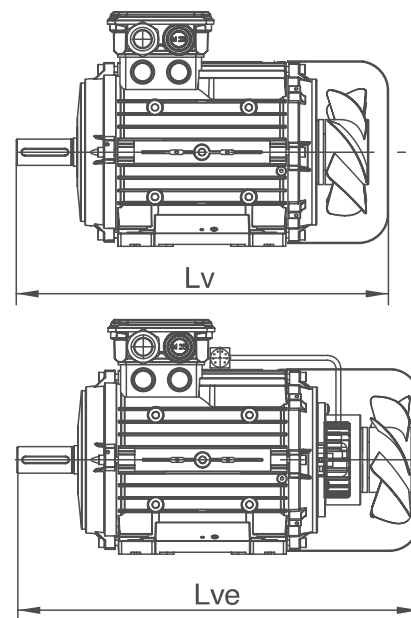
Servoventilation kit

SIZE	Absorbed Power (W)	Nominal Current In (A)	Nominal Tension VN (V)	Speed no. RPM
M71	18	0.1	230	3180
M80	18	0.1	230	3180
M90	39	0.2	230	3444
M100	39	0.2	230	3444
M112	50	0.25	230	3288
M132	50	0.25	230	3288
M160	150	0.26	230/400	2900
M180	270	0.41	230/400	2800
M200	840	2.6/1.5	230/400	1632
M225	840	2.6/1.5	230/400	1632
M250	1080	3.4/2.1	230/400	1692
M280	1500	5/2.9	230/400	1692
M315	1500	5/2.9	230/400	1692

Axial dimension of motors for electronic control

FRAME	Lv	Lve
M71	256	306
M80	250	300
M90S	272	322
M90L	297	347
M100	382	432
M112	387	437
M132S	454	504
M132L	494	544
M160M	660	720
M160L	695	755
M180M/L	803	863
M200L	870	960
M225S/M	890	980
M250M	984	1074
M280S/M	1100	1190
M315S/M	1275	1365
M315L	1375	1465

WITH ADDED VENTILATION
KITS = 0 - 100 Hz CAPABILITY



Please note: prices are subject to change without notice.



Three-phase high efficiency motors

TYPE MTEPS

2 POLES - 3600 RPM

TYPE	Pn		EFF	CosF	rpm	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)	In(575V)
	Hp	Kw	%		min ⁻¹	Nm				A	A	A
MTEPS90SA2	2	1.5	84	0.85	3510	4.08	5.4	5	9.4	5.28	2.64	2.11
MTEPS90LA2	3	2.2	85.5	0.83	3485	6.03	3.7	3.3	8.9	7.78	3.89	3.11
MTEPS100LA2	4	3	85.5	0.85	3510	8.15	3	2.7	8.3	10.12	5.06	4.05
MTEPS100LB2	5	3.7	87.5	0.86	3505	10	2.8	2.5	8.1	12.34	6.17	4.94
MTEPS112MA2	5.5	4	87.5	0.84	3540	10.9	2.9	2.6	8.2	13.66	6.83	5.46
MTEPS112MB2	7.5	5.5	88.5	0.85	3500	n/a	n/a	n/a	n/a	18.4	9.2	7.36
MTEPS132SA2	7.5	5.5	89.5	0.91	3520	14.8	2.9	2.6	6.9	16.96	8.48	6.78
MTEPS132SB2	10	7.5	90.2	0.88	3540	20.2	4.9	3.8	10.9	23.72	11.86	9.49
MTEPS132MB2	15	11	90.2	0.91	3500	n/a	n/a	n/a	n/a	33.4	16.7	13.36
MTEPS160MA2	15	11	90.2	0.88	3535	29.7	3.4	2.7	8.3	34.78	17.39	13.91
MTEPS160MB2	20	15	91	0.86	3560	40.2	3.5	3.3	8.8	48.12	24.06	19.25
MTEPS180MA2	25	18.5	91	0.8	3580	49.3	3.6	3.4	9	63.80	31.9	25.52
MTEPS180MB2	30	22	91	0.8	3575	58.7	5	3.4	9	75.20	37.6	30.08

4 POLES - 1800 RPM

TYPE	Pn		EFF	CosF	rpm	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)	In(575V)
	Hp	Kw	%		min ⁻¹	Nm				A	A	A
MTEPS90SA4	1.5	1.1	84	0.72	1745	6.09	4	3.2	6.5	4.56	2.28	1.82
MTEPS90LA4	2	1.5	84	0.78	1725	8.3	4	3	7	5.70	2.85	2.28
MTEPS100LA4	3	2.2	87.5	0.78	1760	12	4	2.8	7.7	8.10	4.05	3.24
MTEPS100LB4	4	3	85.5	0.74	1740	16.3	4	2.9	6.9	11.76	5.88	4.70
MTEPS112MA4	5.5	4	87.5	0.78	1750	20.13	3.9	2.5	7.5	14.71	7.36	5.88
MTEPS112MB4*	7.5	5.5	89.5	0.78	1755	20.13	3.9	2.5	7.5	19.78	9.89	7.91
MTEPS132SA4	7.5	5.5	89.5	0.76	1765	29.76	4.2	3.9	7.7	20.30	10.15	8.12
MTEPS132MA4	10	7.5	89.5	0.81	1760	40.7	3.6	3	7.1	25.97	12.98	10.39
MTEPS132MC4	15	11	91	0.85	1720	n/a	n/a	n/a	n/a	38.2	19.1	15.3
MTEPS160MA4	15	11	91.7	0.83	1770	59.7	3	2.5	6.7	36.28	18.14	14.51
MTEPS160LA4	20	15	91.7	0.82	1770	80.9	3.2	2.6	6.9	50.07	25.04	20.03
MTEPS180MA4	25	18.5	92.4	0.82	1780	99.2	2.8	2.7	8.1	61.29	30.65	24.52
MTEPS180LA4	30	22	92.4	0.82	1780	118	2.9	2.8	8.6	72.89	36.44	29.15

* Does not match EPACT at full load

6 POLES - 1200 RPM

TYPE	Pn		EFF	CosF	rpm	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)	In(575V)
	Hp	Kw	%		min ⁻¹	Nm				A	A	A
MTEPS90LA6	1	0.75	80	0.6	1145	6.20	2.8	2.6	4.6	3.90	1.95	1.56
MTEPS100LA6	2	1.5	85.5	0.75	1160	12.30	2.8	2.2	5.2	5.90	2.95	2.36
MTEPS112MA6	3	2.2	87.5	0.78	1160	18.11	3.2	2.3	5.9	8.09	4.05	3.24
MTEPS132SA6	4	3	87.5	0.78	1165	24.60	2.8	1.7	5.7	11.00	5.50	4.40
MTEPS132MA6	5.5	4	87.5	0.75	1165	32.80	3.3	2.2	6	15.20	7.60	6.08
MTEPS132MB6	7.5	5.5	89.5	0.77	1150	45.60	3.3	2.2	6	20.00	10.00	8.00
MTEPS160MA6	7.5	5.5	89.5	0.72	1175	44.70	4.5	3.1	6.1	21.40	10.70	8.56
MTEPS160LA6	10	7.5	89.5	0.7	1175	60.90	4.3	2.9	6	30.00	15.00	12.00
MTEPS180MA6	15	11	90.2	0.75	1170	89.80	4.4	3	6.5	40.80	20.40	16.32

Three-phase motors

TYPE MTOML

2 POLES - 3600 RPM

TYPE	Pn		rpm	Cosφ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	Weight	In(230V)	In(460V)	In(575V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A	A	A
MTOML56B2	0.18	0.135	3360	0.7	63	0.38	3.3	3.3	3.9	3.4	0.77	0.38	0.38
MTOML63A2	0.25	0.185	3370	0.77	67	0.52	3.6	3.6	4.5	4.1	0.90	0.45	0.36
MTOML63B2	0.35	0.25	3390	0.75	65	0.70	3.4	3.5	5.1	4.4	1.29	0.64	0.52
MTOML63C2	0.5	0.37	3380	0.74	65	1.05	3.4	3.3	5.0	4.9	1.93	0.97	0.77
MTOML71A2	0.5	0.37	3395	0.8	68	1.04	3.3	3.2	5.4	5.8	1.71	0.85	0.68
MTOML71B2	0.75	0.55	3360	0.82	73	1.56	2.9	2.8	5.6	6.5	2.31	1.15	0.92
MTOML71C2	1	0.75	3430	0.8	69	2.09	4.4	4.3	5.6	6.6	3.41	1.71	1.36
MTOML80A2	1	0.75	3395	0.81	73	2.11	3.5	3.5	5.8	8.4	3.18	1.59	1.27
MTOML80B2	1.5	1.1	3385	0.8	75	3.10	3.6	3.5	6.5	9.5	4.60	2.30	1.84
MTOML80C2	2	1.5	3360	0.75	75						6.6	3.3	2.64
MTOML90SA2	2	1.5	3385	0.8	80	4.23	3.9	3.7	5.7	12.3	5.88	2.94	2.35
MTOML90SB2	2.5	1.85	3395	0.82	75	5.20	3.0	3.0	5.5	12.8	7.55	3.78	3.02
MTOML90LA2	3	2.2	3400	0.85	78	6.18	3.2	3.2	6.1	15	8.33	4.16	3.33
MTOML90LB2	4	3	3445	0.83	80	8.32	3.7	3.6	6.6	17.5	11.34	5.67	4.54
MTOML100LB2	5.5	4	3455	0.82	79	11.06	4.3	4.2	7.2	24	15.50	7.75	6.20
MTOML112MB2	7.5	5.5	3480	0.82	80	15.09	3.4	3.4	7.4	31.6	21.05	10.52	8.42
MTOML132SA2	10	7.5	3500	0.78	82	20.46	3.7	3.5	7.7	42.5	29.44	14.72	11.78
MTOML132MA2	15	11	3510	0.81	83	29.93	3.7	3.6	7.7	52.5	41.07	20.54	16.42
MTOML132MB2	20	15	3500	0.86	84	40.93	3.9	3.6	7.2	59	52.12	26.06	20.85
MTOML160LB2	30	22	3525	0.87	87	59.60	4.2	3.5	8.0	109	72.96	36.48	29.18
MTOML180MA2	30	22	3510	0.89	90	59.85	3.5	2.9	8.0	170	68.94	34.47	27.58

4 POLES - 1800 RPM

TYPE	Pn		rpm	Cosφ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	Weight	In(230V)	In(460V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A	A
MTOML56A4	0.12	0.09	1638	0.65	55	0.52	2.8	2.8	2.9	3.1	0.63	0.32
MTOML63A4	0.18	0.135	1632	0.65	58	0.79	2.3	2.2	2.8	4	0.90	0.45
MTOML63B4	0.25	0.185	1650	0.7	60	1.07	2.9	2.8	3.3	4.6	1.11	0.55
MTOML63C4	0.35	0.25	1608	0.66	60	1.48	3.1	2.9	3.4	5	1.58	0.79
MTOML71A4	0.35	0.25	1692	0.73	60	1.41	3.0	2.9	5.0	6	1.43	0.72
MTOML71B4	0.5	0.37	1656	0.71	67	2.13	2.9	2.8	4.4	6.6	1.95	0.98
MTOML71C4	0.75	0.55	1626	0.79	68	3.23	2.8	2.8	4.4	7	2.57	1.29
MTOML80A4	0.75	0.55	1692	0.8	65	3.10	2.6	2.5	4.4	8	2.66	1.33
MTOML80B4	1	0.75	1692	0.75	69	4.23	2.8	2.4	4.8	9.5	3.64	1.82
MTOML80C4	1.5	1.1	1686	0.77	73	6.23	2.5	2.4	5.2	11.7	4.91	2.46
MTOML90SA4	2	1.5	1698	0.76	75	8.44	3.5	3.4	5.5	14.5	6.61	3.30
MTOML90LB4	2.5	1.85	1686	0.79	77	10.48	4.3	3.5	5.7	16.5	7.63	3.82
MTOML100LA4	3	2.2	1710	0.73	78	12.29	3.0	2.9	5.5	18.5	9.70	4.85
MTOML100LB4	4	3	1690	0.79	79	16.95	3.0	2.9	5.8	21.4	12.07	6.03
MTOML100LC4	5.5	4	1680	0.84	77	22.74	2.3	2.2	5.1	23.5	15.52	7.76
MTOML132S4	7.5	5.5	1700	0.81	83	30.89	3.6	3.1	6.6	34.5	20.54	10.27
MTOML132MA4	10	7.5	1750	0.78	85	40.93	2.9	2.9	6.4	52.5	28.40	14.20
MTOML132MB4	12.5	9.2	1722	0.83	85	51.02	3.4	3.0	6.3	56.5	32.73	16.37
MTOML160MA4	15	11	1750	0.81	89	60.02	2.6	2.4	5.7	79.2	38.30	19.15
MTOML160LA4	20	15	1750	0.8	90	81.85	2.5	3.1	6.1	97.5	52.30	26.15
MTOML180LA4	30	22	1750	0.86	91	120.05	2.8	2.4	6.8	170	70.57	35.28

Please note: prices are subject to change without notice.



Three-phase motors

TYPE MTOML

6 POLES - 1200 RPM

TYPE	Pn		rpm	CosΦ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	Weight	In(230V)	In(460V)	In(575V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A	A	A
MTOML63B6	0.18	0.135	1032	0.56	40	1.25	2.1	2.0	2.0	5	1.51	0.76	0.61
MTOML71A6	0.25	0.185	1080	0.6	55	1.64	2.3	2.3	2.6	6.6	1.41	0.70	0.56
MTOML71B6	0.35	0.25	1092	0.62	55	2.19	2.4	2.3	2.8	7.7	1.84	0.92	0.74
MTOML80A6	0.5	0.37	1098	0.73	60	3.22	2.4	2.2	3.0	8.3	2.12	1.06	0.85
MTOML80B6	0.75	0.55	1080	0.74	64	4.86	2.4	2.0	3.3	10	2.92	1.46	1.17
MTOML90SA6	1	0.75	1104	0.65	66	6.49	2.4	2.3	3.7	12	4.39	2.19	1.76
MTOML90LA6	1.5	1.1	1092	0.73	68	9.62	2.4	2.5	3.9	14.3	5.56	2.78	2.23
MTOML100LA6	2	1.5	1128	0.68	73	12.70	2.4	2.5	5.1	19	7.59	3.79	3.03
MTOML112MA6	3	2.2	1146	0.77	78	18.33	2.9	1.4	5.6	30	9.19	4.60	3.68
MTOML132SA6	4	3	1140	0.77	75	25.13	2.4	1.8	5.1	40	13.04	6.52	5.22
MTOML132MA6	5.5	4	1152	0.75	82	33.16	2.4	2.2	5.5	46.4	16.33	8.16	6.53
MTOML132MB6	7.5	5.5	1140	0.79	81	46.07	2.4	1.7	4.4	52.5	21.58	10.79	8.63
MTOML160MA6	10	7.5	1152	0.8	86	62.17	2.4	2.8	5.5	78	27.36	13.68	10.95
MTOML160LA6	15	11	1170	0.75	87	89.78	2.4	2.9	6.1	110	42.32	21.16	16.93
MTOML180LA6	20	15	1164	0.84	88	123.06	2.4	2.5	7.7	155	50.94	25.47	20.38

8 POLES - 900 RPM

TYPE	Pn		rpm	CosΦ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	Weight	In(230V)	In(460V)	In(575V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A	A	A
MTOML71A8	0.18	0.135	804	0.6	50	1.60	2.6	2.6	2.3	7.5	1.13	0.56	0.45
MTOML80A8	0.25	0.18	816	0.6	55	2.11	2.5	2.6	2.4	8.7	1.37	0.68	0.55
MTOML80B8	0.35	0.25	780	0.64	56	3.06	2.4	2.1	2.5	10	1.75	0.88	0.70
MTOML90SA8	0.5	0.37	828	0.65	60	4.27	2.5	2.2	2.8	12.6	2.38	1.19	0.95
MTOML90LA8	0.75	0.55	816	0.68	58	6.44	2.3	2.2	3.0	14.5	3.50	1.75	1.40
MTOML100LA8	1	0.75	840	0.69	64	8.53	2.3	2.1	3.3	18.9	4.26	2.13	1.71
MTOML100LB8	1.5	1.1	828	0.66	67	12.69	2.1	1.7	3.3	22.3	6.24	3.12	2.50
MTOML112MA8	2	1.5	840	0.65	67	17.05	2.2	1.8	3.3	27.3	8.65	4.32	3.46
MTOML132SA8	3	2.2	852	0.66	73	24.66	2.8	2.2	3.9	44.8	11.46	5.73	4.58
MTOML132MA8	4	3	858	0.69	78	33.39	2.4	1.9	4.4	52	13.99	7.00	5.60
MTOML160MA8	5.5	4	876	0.65	81	43.60	2.8	2.3	4.4	84	19.07	9.54	7.63
MTOML160LA8	7.5	5.5	864	0.65	80	60.79	3.0	2.6	5.0	90	26.55	13.28	10.62
MTOML160LB8	10	7.5	858	0.75	84	83.47	2.4	2.2	4.4	110	29.88	14.94	11.95
MTOML180LA8	15	11	870	0.74	87	120.74	3.0	2.4	6.6	155	42.89	21.44	17.16

Brake motors - Three-phase DC rectified

TYPE MTFHC

2 POLES - 3600 RPM

TYPE	Pn		rpm	CosΦ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A
MTFHC63A2	0.25	0.185	3372	0.77	67	0.52	3.5	3.6	4.5	0.90	0.45
MTFHC63B2	0.35	0.25	3396	0.75	65	0.70	3.5	3.4	5.1	1.29	0.64
MTFHC71A2	0.5	0.37	3396	0.8	68	1.04	3.3	3.2	5.4	1.71	0.85
MTFHC71B2	0.75	0.55	3360	0.81	73	1.56	3.3	3.3	5.8	2.33	1.17
MTFHC80A2	1	0.75	3396	0.81	73	2.11	2.9	2.8	5.6	3.18	1.59
MTFHC80B2	1.5	1.1	3385	0.8	75	3.10	3.6	3.5	6.5	4.60	2.30
MTFHC90SA2	2	1.5	3385	0.8	80	4.23	3.9	3.7	5.7	5.88	2.94
MTFHC90SB2	2.5	1.85	3395	0.82	75	5.20	3.0	3.0	5.5	7.55	3.78
MTFHC90LA2	3	2.2	3396	0.85	78	6.19	3.2	3.2	6.1	8.33	4.16
MTFHC100LB2	4	3	3440	0.83	79	8.33	3.7	3.5	6.2	11.48	5.74
MTFHC100LB2	5.5	4	3455	0.82	79	11.06	4.3	4.2	7.2	15.50	7.75
MTFHC112MA2	5.5	4	3480	0.8	82	10.98	3.7	3.0	7.2	15.31	7.65
MTFHC112MB2	7.5	5.5	3480	0.82	80	15.09	3.4	3.4	7.4	21.05	10.52
MTFHC132SA2	7.5	5.5	3480	0.82	79	15.09	3.3	3.3	7.6	21.31	10.66
MTFHC132SB2	10	7.5	3504	0.78	82	20.44	3.7	3.5	7.7	29.44	14.72
MTFHC160MA2	15	11	3528	0.86	84	29.77	3.6	3.4	7.4	38.22	19.11
MTFHC160MB2	20	15	3546	0.86	86	40.39	3.9	4.3	8.3	50.91	25.46
MTFHC180MA2	25	18.5	3580	0.8	91	49.35	3.7	4.0	9.9	63.79	31.89
MTFHC180LA2	30	22	3575	0.8	91	58.76	3.7	5.5	9.9	75.86	37.93

4 POLES - 1800 RPM

TYPE	Pn		rpm	CosΦ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A
MTFHC63A4	0.18	0.135	1632	0.65	58	0.79	2.3	2.2	2.8	0.90	0.45
MTFHC63B4	0.25	0.185	1650	0.7	60	1.07	2.9	2.8	3.3	1.11	0.55
MTFHC71A4	0.35	0.25	1692	0.73	60	1.41	3.0	2.9	5.0	1.43	0.72
MTFHC71B4	0.5	0.37	1656	0.71	67	2.13	2.9	2.8	4.4	1.95	0.98
MTFHC71C4	0.75	0.55	1626	0.79	68	3.23	2.8	2.8	4.4	2.57	1.29
MTFHC80A4	0.75	0.55	1692	0.8	65	3.10	2.6	2.5	4.4	2.66	1.33
MTFHC80B4	1	0.75	1692	0.75	69	4.23	2.8	2.4	4.8	3.64	1.82
MTFHC90SA4	1.5	1.1	1680	0.83	75	6.25	2.9	2.8	5.3	4.44	2.22
MTFHC90LA4	2	1.5	1698	0.76	75	8.44	3.5	3.4	5.5	6.61	3.30
MTFHC90LB4	2.5	1.85	1686	0.79	77	10.48	4.3	3.5	5.7	7.63	3.82
MTFHC100LA4	3	2.2	1716	0.75	79	12.24	3.0	2.9	5.5	9.32	4.66
MTFHC100LB4	4	3	1692	0.79	79	16.93	2.9	3.0	5.8	12.07	6.03
MTFHC112MA4	5.5	4	1680	0.84	77	22.74	2.3	2.2	5.1	15.52	7.76
MTFHC132SA4	7.5	5.5	1710	0.85	81	30.71	2.9	2.8	5.6	20.05	10.03
MTFHC132MA4	10	7.5	1716	0.84	84	41.74	3.0	3.0	6.6	26.68	13.34
MTFHC160MA4	15	11	1758	0.81	89	59.75	2.4	2.6	7.9	38.30	19.15
MTFHC160LA4	20	15	1752	0.8	86	81.76	2.8	2.9	6.4	54.73	27.36
MTFHC180MA4	25	18.5	1780	0.82	92.4	99.25	3.0	3.1	8.9	61.29	30.65
MTFHC180LA4	30	22	1780	0.82	92.4	118.03	3.1	3.2	9.5	72.89	36.44

Please note: prices are subject to change without notice.



Brake motors - Three-phase DC rectified

TYPE MTFHC

6 POLES - 1200 RPM

TYPE	Pn		rpm	Cosφ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A
MTFHC63A6	0.17	0.12	1032	0.56	40	1.33	2.1	2.0	2.0	1.34	0.67
MTFHC71A6	0.25	0.185	1080	0.6	55	1.96	2.3	2.3	2.6	1.41	0.70
MTFHC71B6	0.35	0.25	1092	0.62	55	2.62	2.4	2.3	2.8	1.84	0.92
MTFHC80A6	0.5	0.37	1098	0.73	60	3.86	2.4	2.2	3.0	2.12	1.06
MTFHC80B6	0.75	0.55	1080	0.74	64	5.8	2.4	2.0	3.3	2.92	1.46
MTFHC90SA6	1	0.75	1104	0.65	66	7.8	2.4	2.3	3.7	4.39	2.19
MTFHC90LA6	1.5	1.1	1092	0.73	68	11.6	2.4	2.5	3.9	5.56	2.78
MTFHC100LA6	2	1.5	1128	0.68	73	15.2	2.4	2.5	5.1	7.59	3.79
MTFHC112MA6	3	2.2	1146	0.77	78	22	2.9	1.7	5.6	9.19	4.60
MTFHC132SA6	4	3	1140	0.77	75	30.2	2.8	1.8	5.1	13.04	6.52
MTFHC132MA6	5.5	4	1152	0.75	82	39.6	2.4	2.2	5.5	16.33	8.16
MTFHC132MB6	7.5	5.5	1140	0.79	81	56	2.4	1.7	4.4	21.58	10.79
MTFHC160MA6	7.5	5.5	1145	0.79	83	57	2.4	1.7	4.5	21.70	10.53
MTFHC160LA6	10	7.5	1152	0.8	86	74.6	2.5	2.8	5.5	27.36	13.68

8 POLES - 900 RPM

TYPE	Pn		rpm	Cosφ	EFF	Mn	Mm/Mn	Ms/Mn	Is/In	In(230V)	In(460V)
	Hp	Kw	min ⁻¹		%	Nm				Kg	A
MTFHC80A8	0.25	0.185	816	0.6	55	2.16	2.5	2.6	2.4	1.41	0.70
MTFHC80B8	0.35	0.25	780	0.64	56	3.06	2.2	2.1	2.5	1.75	0.88
MTFHC90SA8	0.5	0.37	828	0.65	60	4.27	2.5	2.2	2.8	2.38	1.19
MTFHC90LA8	0.75	0.55	816	0.68	58	6.44	1.4	1.5	3.0	3.50	1.75
MTFHC100LA8	1	0.75	840	0.69	64	8.53	1.5	1.9	3.3	4.26	2.13
MTFHC100LB8	1.5	1.1	828	0.66	67	12.69	1.7	2.1	3.3	6.24	3.12
MTFHC112MA8	2	1.5	840	0.65	67	17.05	1.8	2.2	3.3	8.65	4.32
MTFHC132SA8	3	2.2	852	0.66	73	24.66	2.2	2.4	3.9	11.46	5.73
MTFHC132MA8	4	3	858	0.69	78	33.39	1.8	2.4	4.4	13.99	7.00



NOTE

20 horizontal dotted lines for notes.







NOTE

Area with horizontal dotted lines for notes.





Terms and conditions of sale

PRICE:

Prices shown are F.O.B. Mississauga, Ontario, Canada or Atlanta, Georgia, U.S.A.. All taxes are extra where applicable. Prices to be confirmed at time of ordering.

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Net 30 days from the date of shipment for credit approved accounts. 2% per month finance charge will be added to any overdue account not paid after 30 days as allowed by law. Product will remain property of CEG ELECTRIC MOTORS N.A. until complete payment has been made by the buyer.

CLAIM:

Shortage or damaged goods in transit must be made to the transportation company as risk passes to the customer at F.O.B. point.

WARRANTY:



CEG ELECTRIC MOTORS N.A. have a two years warranty from date of installation, against defects in manufacture or defective material. Seller at its option will either replace or repair the defective units. Warranty does not apply to improper storage; improper installation or use; modifications or repairs without our agreement; and anyone other fault beyond our control. Warranty is void if motor has been dismantled by anyone other than authorized repair facility.

SELLER LIMITATION OF WARRANTY AND LIABILITIES:

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