



ELECTRIC MOTORS

Product Catalogue

HPT® High Power Transmission Italy

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ELECTRIC MOTORS

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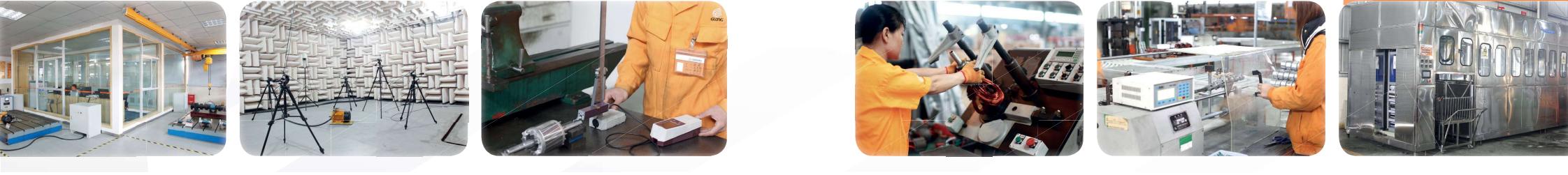
50



MSEJ Series Motors



ITALY
HIGH POWER TRANSMISSION



RoHS ISO9001:2015 UL

General features

The motors ranges are projected to satisfy the wide industry applications.

The material constructions and procedures are according the European Standards (CE marking).

Electrical, mechanical and test methods comply with EN 60034. UL insulation system available on request.

Windings

All motors are winded by enamelled copper wires and impregnated by resin. Tropicalization treatment of windings are varnished with high hydroscopic charateristics for ambient with humidity over 60% on request.

Insulation class

The motors can be manufactured with insulation class F and H. The standard rise of temparature is B class. Special insulation class on request. (Tab. page 12)

Rotors

Die-cast squirrel cage electric motors with aluminium or aluminium (Al-Si). Standard shaft are made by C45 and key-shaft comply with IEC 60072-1.

Special shaft design or material (Stainless Steel) on request.

Frame

Alluminium die-casting with removable feet up to frame 160. Cast iron frame upto 355.

International IEC Standards

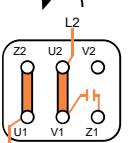
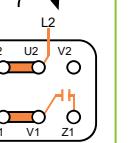
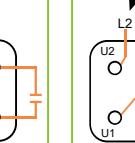
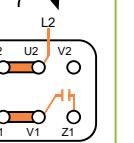
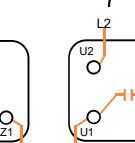
Rating and performance	IEC 60034-1
Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles)	IEC 60034-2
Degrees of protection provided by the integral design of rotating electrical machines (IP code) - Classification	IEC 60034-5
Methods of cooling (IC Code)	IEC 60034-6
Classification of types of construction, mounting arrangements and terminal box position (IM Code)	IEC 60034-7
Terminal markings and direction of rotation	IEC 60034-8
Noise limits	IEC 60034-9
Starting performance of single-speed three-phase cage induction motors	IEC 60034-12
Mechanical vibration of certain machines with shaft heights 56 mm and higher - Measurement, evaluation and limits of vibration severity	IEC 60034-14
General purpose three-phase induction motors having standard dimensions and outputs. Frame numbers 56 to 315 and flange numbers 65 to 740	IEC 60072-1
Degrees of protection provided by enclosures (IP Code)	IEC 60529
Rated voltage for low voltage mains power	IEC 60038

Mountings

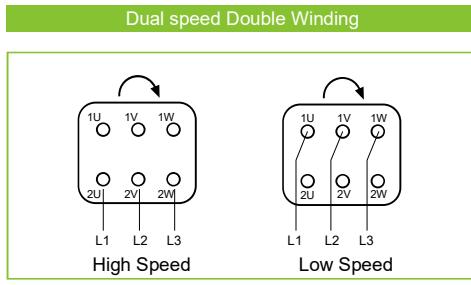
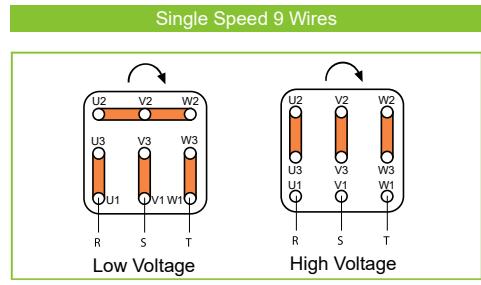
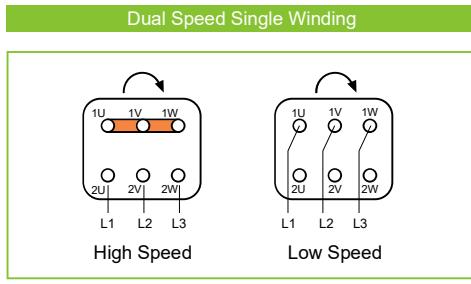
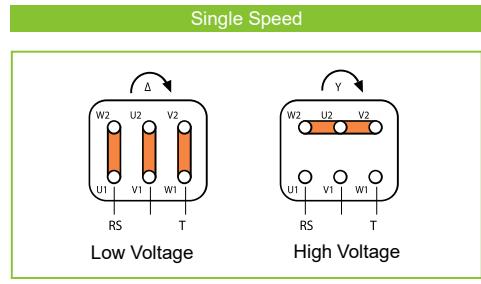
According to IEC 60034-7, there are two ways to define the configuration and installation position for an electric motor: the first way is defined by the letters IM (International Mounting) followed by another letter (B = horizontal shaft; V = vertical shaft) and from a number, the second way is a more general code composed by the letters IM and from four numbers.

Motors with feet B3	Flange-mounted motors B5	Flange-mounted motors B14
IM 1051 (IM B6) 	IM 1001 (IM B3) 	IM 3001 (IM B5) 
IM 1061 (IM B7) 	IM 1011 (IM V5) 	IM 3011 (IM V1) 
IM 1071 (IM B8) 	IM 1031 (IM V6) 	IM 3031 (IM V3) 
IM 2001 (IM B35) 	IM 2101 (IM B34) 	IM 2011 (IM V15) 
B3/B 5	B3/B14	V1/V5
IM 2031 (IM V36) 		V3/V6

Electrical connections single-phase motors

MY	ML	MY - 3 Wires Connection
 Counter Clockwise Rotation	 Clockwise Rotation	 Counter Clockwise Rotation
	 Clockwise Rotation	 Clockwise Rotation

Electrical connections three-phase motors



Noise levels

Noise level - (CEI EN 60034-9)

Sound pressure and power levels were measured on three-phase motors, one meter away from the machine, and weighted according to curve A (ISO R 1680). At 50 Hz for relative values, at 60 Hz this increases by an average of 4 dBa.

Ventilation IC411 - Protection IP55		Sound Pressure (LpA) - Sound Pressure (LwA)							
Motor Size		2 poles		4 poles		6 poles		8 poles	
		LpA [dB]	LwA [dB]	LpA [dB]	LwA [dB]	LpA [dB]	LwA [dB]	LpA [dB]	LwA [dB]
56		69	78	63	72	58	67	54	63
63		75	84	67	76	61	70	58	67
71		75	84	67	76	61	70	58	67
80		75	84	70	79	63	72	61	70
90		75	85	70	80	66	76	66	76
100		77	87	70	80	66	76	66	76
112		78	88	73	83	66	73	66	73
132		69	78	63	72	58	67	54	63
160		75	84	67	76	61	70	58	67
180		75	84	67	76	61	70	58	67

Bearings

Axially-free bearings, locked or with grease nipple upon request.

Size	MS/MY SERIES		MC/ML SERIES		MSEJ SERIES	
	DE	NDE	DE	NDE	DE	NDE
56	6201 2RS	6201 2RS				
63	6201 2RS	6201 2RS	6201 2RS	6201 2RS	6201 2RS	6202 2RS
71	6202 2RS	6202 2RS	6202 2RS	6202 2RS	6202 2RS	6203 2RS
80	6204 2RS	6204 2RS	6204 2RS	6204 2RS	6204 2RS	6204 2RS
90	6205 2RS	6205 2RS	6205 2RS	6205 2RS	6205 2RS	6205 2RS
100	6206 2RS	6206 2RS	6206 2RS	6206 2RS	6206 2RS	6206 2RS
112	6306 2RS	6306 2RS	6306 2RS	6306 2RS	6306 2RS	6306 2RS
132	6308 2RS	6308 2RS			6308 2RS	6308 2RS
160	6309 2RS	6309 2RS			6309 2RS	6309 2RS
180					6311 2RS	6311 2RS

Oil Seals

Size	Front Oil Seal		Back Oil Seal	
	56	63	71	80
56	Ø12 x Ø22x5		Ø12 x Ø22x5	
63	Ø12 x Ø24x7		Ø12 x Ø24x7	
71	Ø15 x Ø25x7		Ø15 x Ø25x7	
80	Ø20 x Ø35x7		Ø20 x Ø35x7	
90	Ø25 x Ø37x7		Ø25 x Ø37x7	
100	Ø30 x Ø42x7		Ø30 x Ø42x7	
112	Ø30 x Ø44x7		Ø30 x Ø44x7	
132	Ø40 x Ø58x8		Ø40 x Ø58x8	
160	Ø45 x Ø65x8		Ø45 x Ø65x8	

Operation at 60Hz Frequency

Our single-phase motors are manufactured in 230 Volt rated voltage and 50 Hz frequency. Our three-phase motors are manufactured in 400 Volt rated voltage and 50 Hz frequency.

Motors manufactured according to 50 Hz rated frequency can practically be used at 60Hz frequency. However, an increase in frequency causes a change in speed and torque, then also the motor power changes as well. The working conditions are shown in the following table.

Plate Voltage	Plate Voltage	RPM	Nominal Power		Nominal Current		Nominal Torque		Starting Current	Starting Torque	Max. Torque
			50 Hz	60Hz	Nominal Power	Nominal Current	Nominal Torque	Starting Current			
230 +/- 10%	230 +/- 10%	1.2	1	0.95	0.83	0.83	0.83	0.83	0.83	0.83	0.83
230 +/- 10%	254 +/- 5%	1.2	1.1	1.02	0.96	0.93	0.93	0.93	0.93	0.93	0.93
230 +/- 10%	277 +/- 5%	1.2	1.2	1	1	1	1	1	1	1	1
400 +/- 10%	400 +/- 10%	1.2	1	0.95	0.83	0.83	0.83	0.83	0.83	0.83	0.83
400 +/- 10%	440 +/- 5%	1.2	1.1	1.02	0.96	0.93	0.93	0.93	0.93	0.93	0.93
400 +/- 10%	460 +/- 10%	1.2	1.15	1	0.96	0.96	0.96	0.96	0.96	0.96	0.96
400 +/- 10%	480 +/- 10%	1.2	1.2	1	1	1	1	1	1	1	1

Protection Classes

Our motors are manufactured according to the IEC 60034-5 standard, protecting them against dust and squirting liquids. Our standard motors are manufactured in IP 55 protection class. Other protection available upon request.

As shown in the below table, the first digit in the IP (Ingress Progress) diagram describes the protection against solid materials. The second digit shows the protection against liquid materials.

IP	5	5	
Protection Against Solid Materials	First Number	Second Protection	Protection Against Liquid Materials
Unprotected	0	0	Unprotected
Protection against objects greater than 50 mm	1	1	Protection against water coming vertically
Protection against objects greater than 12 mm	2	2	Protection against water coming vertically up to 15 ° angle
Protection against objects greater than 2,5 mm	3	3	Protection against water coming vertically up to 60 ° angle
Protection against objects greater than 1 mm	4	4	Protection against water splashing from all directions
Protection against dust	5	5	Protection against water squirting from all directions
Complete protection against dust	6	6	Protection against powerful water squirting from all directions from all directions
		7	Protection against temporary water submersion between 0.15m and 1m
		8	Protection against permanent water submersion

Insulation Classification

Under specified measuring conditions in accordance with IEC 60034-1 standard, the insulation F class for an electric motor means at ambient temperature of 40°C the temperature rise of its windings may be max. 105°C with the additional temperature margin of 10°C.

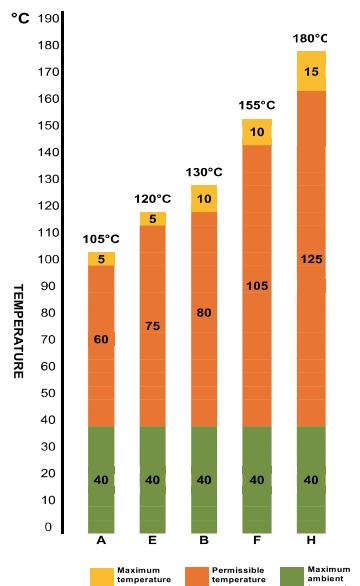
Other insulation class on request. Please contact our sales department.

Working Conditions

Glong motors are manufactured to operate continuously at rated power in S1 duty type at 40°C ambient temperature and at an altitude up to 1000 m.

The tables of technical data are referred to an ambient temperature of 40°C and an altitude up to 1000 a.s.l.

For different environment conditions the motor rated power will decrease. Please contact our technical department for special request.



The motors are normally built for S1 duty. Otherwise intermittent duties can be done on request. Please contact our sales department.

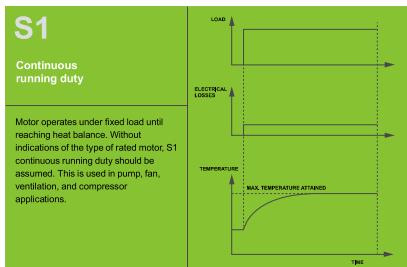


FIGURE 10: S-1 DUTY TYPE - Continuous running duty

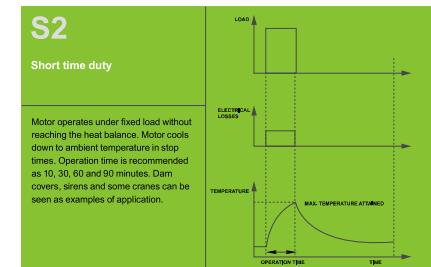


FIGURE 11: S-2 DUTY TYPE - Short-time duty

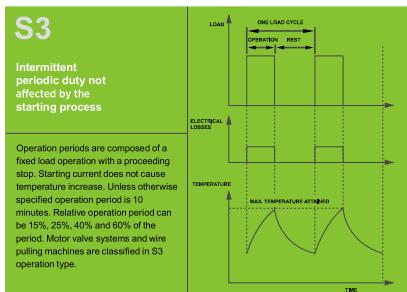


FIGURE 12: S-3 DUTY TYPE - Intermittent periodic duty

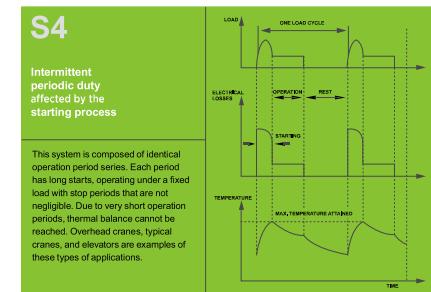


FIGURE 13: S-4 DUTY TYPE - Intermittent periodic duty with starting process

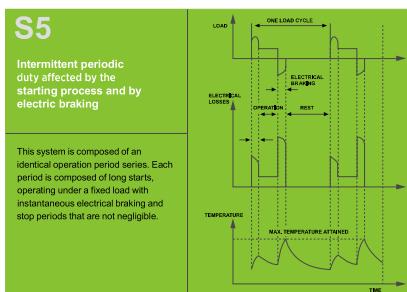


FIGURE 14: S-5 DUTY TYPE - Intermittent periodic duty with electric braking

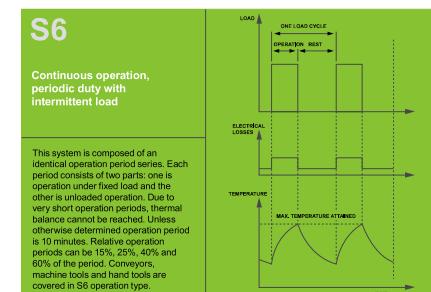
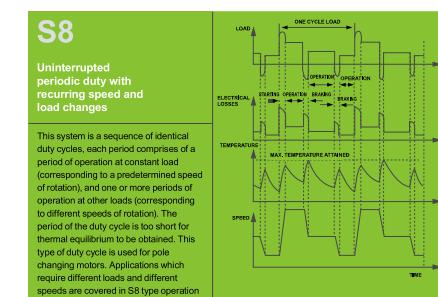
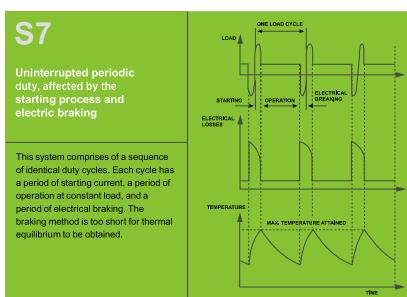
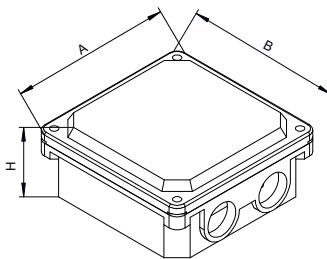


FIGURE 15: S-6 DUTY TYPE - Continuous operation duty with intermittent load



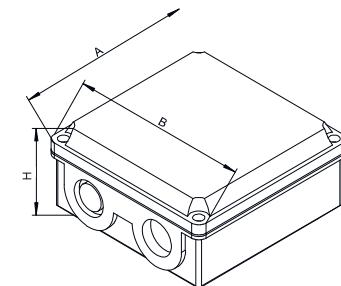
Terminal box size

Terminal box for MS, EMS, HMS and MSD are made in die casting aluminum, for Y2 and EY2 are made in cast-iron and for MC, MY and MYT in PPO. All of them has IP55 as standard protection degree.



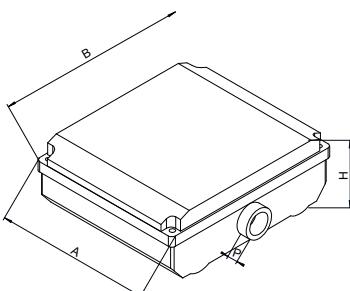
MS/EMS/HMS SERIES

TYPE	A	B	H
MS/EMS/HMS 56	88	88	39
MS/EMS/HMS 63-71	90	90	44
MS/EMS/HMS 80-100	105	105	51
MS/EMS/HMS 112-132	112	112	54



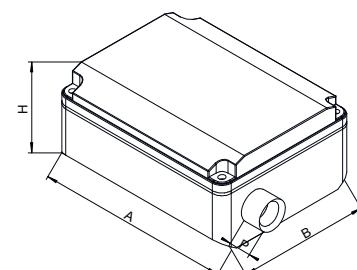
MS/EMS/HMS SERIES

TYPE	A	B	H
MS/EMS/HMS 56	88	88	43
MS/EMS/HMS 63-71	94	94	48
MS/EMS/HMS 80-100	105	105	56
MS/EMS/HMS 112-132	119	112	62
MS/EMS/HMS 160	143	146	70



MY SERIES

TYPE	A	B	H	P
MY56	114	100	45	
MY63-1	117	93	55	13
MY80-100	140	110	65.5	18.6

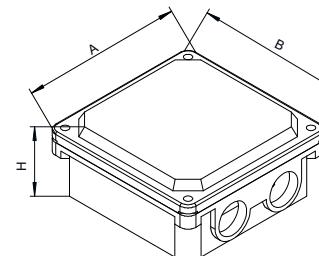


ML SERIES

TYPE	A	B	H	P
ML63-71	107	136	67	13
ML80-100	150	176	65	18.6
ML112	152	193	71	18.6

Terminal box size

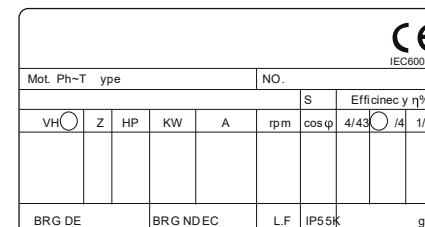
NEW COMPACT MS/EMS/HMS SERIES



TYPE	A	B	H
MS/EMS/HMS 56	80	80	42
MS/EMS/HMS 63-71	80	80	42
MS/EMS/HMS 80-100	100	100	45
MS/EMS/HMS 112-132	119	119	54

Nameplate

Terminal box for MS, EMS, HMS and MSD are made in die casting aluminum, for Y2 and EY2 are made in cast-iron and for MC, MY and MYT in PPO. All of them has IP55 as standard protection degree.



TYPE	L x W	Mounting hole
56#-71#	73x42	60
80#-132#	82x42	65
160#	99x50	80

Axially locked shaft

Motors with a locked bearing on the front or rear shield.

Operating temperature

The motors in standard design can work in environment temperature down to -15°C. For lower temperature ranges please contact our technical department.

Condensate drain holes

Condensation drain hole available on request.
Please contact our technical department.

Rain fan cover

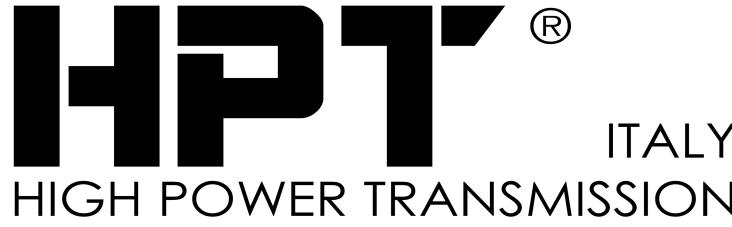
Balanced windings bi-phase motors

Balanced windings on single phase motor available on request.

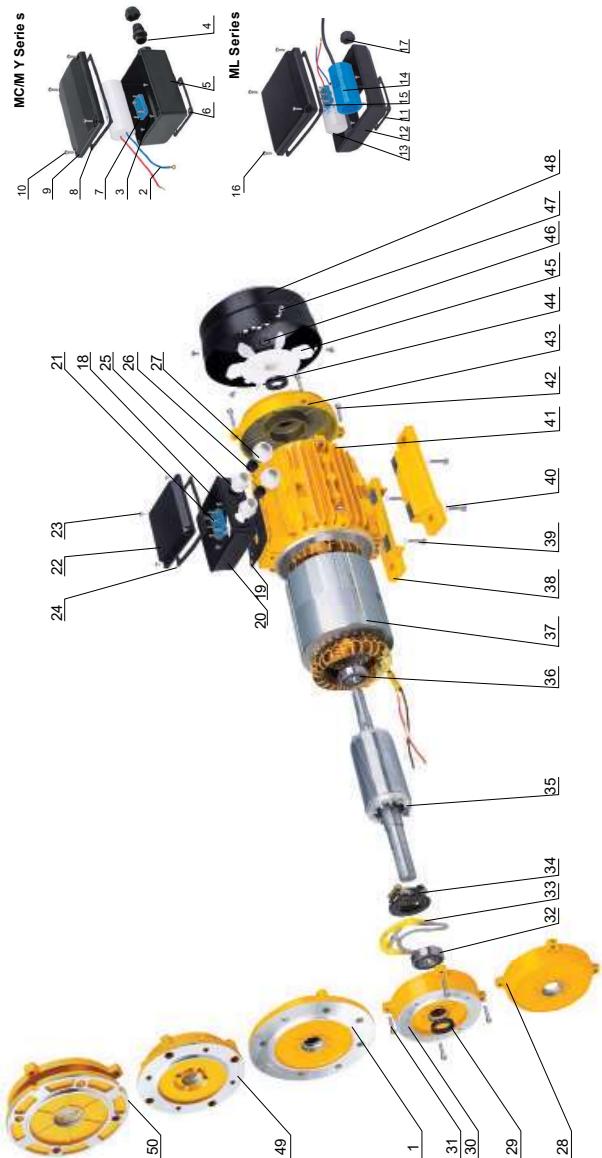
Special voltages and frequencies

The standard three phase motors are produced at the following nominal voltages and frequencies: 230/400V 50 Hz up to 4kW, 400/690V 50Hz oltre 4kW.

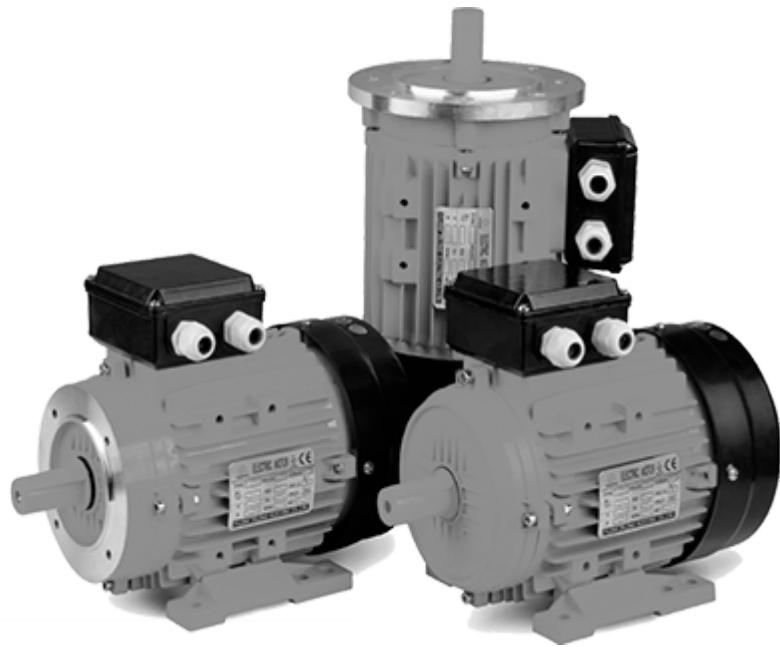
For single phase motor 230 50Hz. With tolerances according to IEC. For different voltage frequencies please contact our technical department.



Aluminium Housing Motor Expanded Diagram



No.	Description	No.	Description	No.	Description
1	B5 Flange B5	11	Washer	31	Bolt
2	Run Capacitor	12	Terminal Box	32	Bearing
3	Screw	13	Run Capacitor	33	Centrifugal Switch Bottom
4	Terminal Box Plug Screw	14	Start Capacitor	34	Centrifugal Switch
5	Terminal Box	15	Terminal Block	35	Rotor
6	Washer	16	Screw	36	Bearing
7	Terminal Block	17	Terminal Box Screw	37	Stator
8	Seal	18	Screw	38	Bottom Foot
9	Terminal Box Cover	19	Washer	39	Screw
10	Screw	20	Terminal Box	40	Spring Washer
				41	Motor Body
				42	Screw
				43	End Cover
				44	Seal
				45	Fan
				46	Snap Ring
				47	Screw
				48	Fan Cover
				49	B14B Flange B14B
				50	BSR Flange BSR



ALUMINUM HOUSING

MS EMS HMS MSD SERIES

THREE-PHASE ASYNCHRONOUS MOTORS

OPERATING CONDITIONS

- Ambient temperature: $-15^{\circ}\text{C} \leq 40^{\circ}\text{C}$
- Above sea level: not exceed 1000M
- Rated voltage: $\pm 5\%$
- Protection Class: IP44/IP54/IP55
- Insulation Class: B/F
- Cooling method: IC411
- Duty: continuous(S)

MATERIALS

- Housing: Aluminium
- Cover: Aluminium
- Terminal Box: Aluminium
- Fan: PP
- Fan Cover: A3
- Shaft: C45

MS series aluminium housing three-phase asynchronous motors, with latest design in entirety, it's made of superior materials and conform to the IEC standard. MS motors have good performance, safety reliable operation and nice appearance, it can be maintained very conveniently while with low noises, little vibration, light weight and simple construction. These series motors can be used for general drive.

MS SERIES TECHNICAL DATA AT 50HZ

TYPE	Power (kW)	Current (A)						Speed (r/min)	Eff (%)	Power Factor Cos Φ	Rated Torque Tn (N.m)	Tst/Tn (Times)	Tmax/Tn (Times)	Ist/In (Times)	Weight (kg)
		220V	380V	660V	230V	400V	690V								
MS561-2	0.09	0.79	0.46	0.27	0.77	0.44	0.26	2680	45.0	0.65	0.32	2.2	2.4	6	2.8
MS562-2	0.12	1.02	0.59	0.34	0.97	0.56	0.33	2660	45.0	0.69	0.43	2.2	2.4	6	3.2
MS563-2	0.18	1.24	0.72	0.42	1.18	0.68	0.39	2750	52.8	0.72	0.63	2.2	2.4	6	3.5
MS631-2	0.18	1.19	0.69	0.40	1.15	0.66	0.38	2710	52.8	0.75	0.63	2.2	2.4	6	4
MS632-2	0.25	1.45	0.84	0.48	1.39	0.80	0.46	2710	58.2	0.78	0.88	2.2	2.4	6	4.4
MS633-2	0.37	1.95	1.13	0.65	1.86	1.07	0.62	2710	63.9	0.78	1.30	2.2	2.4	6	4.9
MS711-2	0.37	1.94	1.12	0.65	1.84	1.06	0.61	2730	63.9	0.79	1.29	2.2	2.4	6	5.6
MS712-2	0.55	2.66	1.54	0.89	2.54	1.46	0.85	2760	69.0	0.79	1.90	2.2	2.4	6	6.3
MS713-2	0.75	3.33	1.93	1.11	3.18	1.83	1.06	2730	72.1	0.82	2.62	2.2	2.4	6	7.1
MS801-2	0.75	3.33	1.93	1.11	3.18	1.83	1.06	2770	72.1	0.82	2.59	2.2	2.4	6	9.1
MS802-2	1.1	4.63	2.68	1.54	4.44	2.55	1.48	2770	75.0	0.83	3.79	2.2	2.4	6	9.96
MS803-2	1.5	6.15	3.56	2.05	5.88	3.38	1.96	2800	77.2	0.83	5.12	2.2	2.4	6	11.7
MS90S-2	1.5	6.08	3.52	2.03	5.81	3.34	1.94	2840	77.2	0.84	5.04	2.2	2.4	6	12.3
MS90L1-2	2.2	8.53	4.94	2.84	8.16	4.69	2.72	2840	79.7	0.85	7.40	2.2	2.4	6	15
MS90L2-2	3	11.3	6.52	3.75	10.8	6.19	3.54	2840	81.5	0.86	10.09	2.2	2.4	6	18.5
MS100L1-2	3	11.1	6.43	3.70	10.6	6.11	3.54	2840	81.5	0.87	10.09	2.2	2.3	7	22.3
MS100L2-2	4	14.5	8.41	4.84	13.9	7.99	4.63	2850	83.1	0.87	13.40	2.2	2.3	7.5	25.2
MS112M1-2	4	15.5	8.41	4.84	13.9	7.99	4.63	2880	83.1	0.87	13.26	2.2	2.3	7.5	26.7
MS112M2-2	5.5	19.4	11.2	6.45	18.5	10.7	6.17	2880	84.7	0.88	18.24	2.2	2.3	7.5	30.2
MS112L-2	7.5	26.0	15.1	8.67	24.9	14.3	8.29	2920	86.0	0.88	24.53	2	2.2	7.5	42.2
MS132S1-2	5.5	19.4	11.2	6.45	18.5	10.7	6.17	2900	84.7	0.88	18.11	2	2.2	7.5	38.5
MS132S2-2	7.5	26.0	15.1	8.67	24.9	14.3	8.29	2920	86.0	0.88	24.53	2	2.2	7.5	42.2
MS132M1-2	9.2	31.5	18.3	10.5	30.2	17.4	10.1	2930	86.0	0.89	29.99	2	2.2	7.5	51.4
MS132M2-2	11	36.6	21.2	12.2	35.0	20.1	11.7	2930	87.6	0.9	35.85	2	2.2	7.5	58.8
MS132LC-2	15	48.8	28.2	16.3	46.6	26.8	15.6	2940	88.7	0.91	48.72	2	2.2	7.5	88
MS160M1-2	11	36.6	21.2	12.2	35.0	20.1	11.7	2940	87.6	0.9	35.73	2	2.2	7.5	75
MS160M2-2	15	48.8	28.2	16.3	46.6	26.8	15.6	2940	88.7	0.91	48.72	2	2.2	7.5	88
MS160L-2	18.5	59.8	34.6	19.9	57.1	32.9	19.1	2940	89.3	0.91	60.09	2	2.2	7.5	99
MS180M-2	22	71.3	41.3	23.8	68.2	39.2	22.7	2940	90	0.9	120	2	2.3	7.5	119.5
MS200L1-2	30	96.2	55.7	32.1	92	52.9	30.7	2950	91	0.9	140	2	2.3	7.5	97.1
MS200L1-2	37	117.3	67.9	39.1	112.2	64.5	37.4	2950	92	0.9	155	2	2.3	7.5	119.8

Note 220/440V 60Hz 220/380/440V 60Hz and special voltage models are available on request. Above motor weight only for reference.

- MS SERIES TECHNICAL DATA AT 50HZ

TYPE	Power (kW)	Current (A)						Speed (r/min)	Eff (%)	Power Factor Cos φ	Rated Torque Tn (N.m)	Tst/Tn (Times)	Tmax/Tn (Times)	Ist/In (Times)	Weight (kg)
		220V	380V	660V	230V	400V	690V								
MS561-4	0.06	0.55	0.32	0.18	0.52	0.30	0.17	1320	48.5	0.59	0.43	2.3	2.4	6	3
MS562-4	0.09	0.77	0.45	0.26	0.74	0.43	0.25	1320	50.0	0.61	0.65	2.3	2.4	6	3.3
MS563-4	0.12	1.00	0.58	0.33	0.96	0.55	0.32	1320	50.0	0.63	0.87	2.2	2.4	6	3.5
MS631-4	0.12	0.99	0.57	0.33	0.94	0.54	0.31	1350	50.0	0.64	0.85	2.2	2.4	6	3.9
MS632-4	0.18	1.28	0.74	0.43	1.22	0.70	0.41	1350	57.0	0.65	1.27	2.2	2.4	6	4.3
MS633-4	0.25	1.62	0.94	0.54	1.55	0.89	0.52	1350	61.5	0.66	1.77	2.2	2.4	6	5.0
MS711-4	0.25	1.49	0.86	0.50	1.45	0.82	0.48	1350	61.5	0.72	1.77	2.2	2.4	6	5.4
MS712-4	0.37	1.99	1.15	0.66	1.90	1.09	0.63	1370	66.0	0.74	2.58	2.2	2.4	6	6.5
MS713-4	0.55	2.75	1.59	0.92	2.63	1.51	0.88	1380	70.0	0.75	3.81	2.2	2.4	6	7.2
MS801-4	0.55	2.75	1.59	0.92	2.63	1.51	0.88	1370	70.0	0.75	3.83	2.2	2.4	6	8.2
MS802-4	0.75	3.50	2.03	1.17	3.36	1.93	1.12	1380	72.1	0.78	5.19	2.2	2.4	6	10
MS803-4	1.1	4.92	2.85	1.64	4.71	2.71	1.57	1390	75.0	0.78	7.56	2.2	2.4	6	11.5
MS903-4	1.1	4.87	2.82	1.62	4.66	2.68	1.55	1400	75.0	0.79	7.50	2.2	2.4	6	12.5
MS90L1-4	1.5	6.39	3.70	2.13	6.10	3.51	2.04	1400	77.2	0.8	10.23	2.2	2.4	6	14.6
MS90L2-4	2.2	9.05	5.24	3.02	8.66	4.98	2.89	1400	79.7	0.8	15.01	2.2	2.3	7	18.5
MS100L1-4	2.2	8.95	5.18	2.98	8.56	4.92	2.15	1420	79.7	0.81	14.80	2.2	2.3	7	21
MS100L2-4	3	11.8	6.384	3.94	11.3	6.50	3.77	1420	81.5	0.81	20.18	2.2	2.2	7	23.4
MS100L3-4	4	15.4	8.90	5.12	14.7	8.45	4.90	1430	83.1	0.82	26.71	2.2	2.2	7	28.8
MS112M-4	4	15.3	8.8	5.08	14.6	8.39	4.86	1430	83.1	0.83	26.71	2.2	2.2	7	30
MS112L-4	5.5	20.4	11.8	6.79	19.5	11.2	6.49	1440	84.7	0.83	36.48	2.2	2.2	7	34.8
MS132S-4	5.5	20.1	11.7	6.71	19.3	11.1	6.42	1450	84.7	0.84	36.22	2.2	2.2	7	40.5
MS132M-4	7.5	26.9	15.6	8.98	25.8	14.8	8.59	1450	86.0	0.85	49.40	2.2	2.2	7	49.7
MS132L1-4	9.2	33.0	19.1	11.0	31.6	18.2	10.5	1460	86.0	0.85	60.18	2.2	2.2	7	58.2
MS132L2-4	10	35.3	20.4	11.8	33.7	19.4	11.2	1460	87.6	0.85	65.41	2.2	2.2	7	59.2
MS132L3-4	11	38.3	22.2	12.8	36.7	21.1	12.2	1460	87.6	0.86	71.95	2.2	2.2	7.5	65
MS160M-4	11	37.9	21.9	12.6	36.2	20.8	12.1	1460	87.6	0.87	71.95	2.2	2.2	7.5	78.3
MS160L-4	15	51.0	29.5	17.0	48.8	28.1	16.3	1460	88.7	0.87	98.12	2.2	2.2	7.5	98.5
MS180M-4	18.5	62.7	36.3	20.9	60	34.5	20	1470	90	0.86	120.2	2.2	2.3	7.5	125
MS180L-4	22	73.8	42.7	24.6	70.6	40.6	23.5	1470	91	0.86	142.9	2.2	2.3	7.5	140
MS200L-4	30	99.5	57.6	33.2	95.1	54.7	31.7	1470	92	0.86	194.9	2.2	2.3	7.2	160
MS631-6	0.09	1.02	0.59	0.34	0.97	0.56	0.33	840	38.3	0.61	1.02	2	2	3.5	5.1
MS632-6	0.12	1.33	0.77	0.44	1.27	0.73	0.42	850	38.3	0.62	1.35	2	2	3.5	5.25
MS711-6	0.18	1.59	0.92	0.53	1.51	0.87	0.50	880	45.5	0.66	1.95	1.6	1.7	4	6
MS712-6	0.25	1.80	1.04	0.60	1.72	0.99	0.57	900	52.1	0.7	2.65	2.1	2.2	4	6.5
MS713-6	0.37	2.37	1.37	0.79	2.26	1.30	0.75	890	59.7	0.69	3.97	2	2.1	4	7.2
MS801-6	0.37	2.33	1.35	0.78	2.23	1.28	0.74	900	59.7	0.7	3.93	1.9	1.9	4	8.2
MS802-6	0.55	3.06	1.77	1.02	2.92	1.68	0.97	900	65.8	0.72	5.84	2	2.3	4	9.9
MS803-6	0.75	3.90	2.26	1.30	3.74	2.15	1.25	900	70.0	0.72	7.96	2	2.3	4	11.4
MS90S-6	0.75	3.90	2.26	1.30	3.74	2.15	1.25	920	70.0	0.72	7.79	2.2	2.2	5.5	11.7
MS90L1-6	1.1	5.42	3.14	1.81	5.18	2.98	1.73	925	72.9	0.73	11.36	2.2	2.2	5.5	15.1
MS100L-6	1.5	6.89	3.99	2.30	6.59	3.79	2.20	945	75.2	0.76	15.16	2.2	2.2	6	19.1
MS112M-6	2.2	9.78	5.66	3.26	9.36	5.38	3.12	955	77.7	0.76	22.00	2.2	2.2	6	25.4
MS132S-6	3	13.0	7.53	4.34	12.4	7.15	4.15	960	79.7	0.76	29.84	2	2	6.5	36.1
MS132M-6	4	17.0	9.82	5.65	16.2	9.33	5.41	960	81.4	0.76	39.79	2	2	6.5	45
MS132M-6	5.5	22.6	13.1	7.52	21.6	12.4	7.19	960	83.1	0.77	54.71	2	2	6.5	55.5
MS132L-6	7.5	30.2	17.5	10.1	28.9	16.6	9.62	960	84.7	0.77	74.61	2	2	6.5	60
MS160M-6	7.5	29.1	16.8	9.69	27.8	16.0	9.26	960	84.7	0.8	74.61	2	2.2	6.5	72
MS160L-6	11	42.3	24.5	14.1	40.5	23.3	13.5	960	86.4	0.79	109.43	2	2.2	6.5	92
MS180L-6	15	54.6	31.6	18.2	52.2	30	17.4	970	89	0.81	147.7	2	2.1	7	130
MS200L-6	18.5	66.7	38.6	22.2	63.7	36.6	21.2	970	90	0.81	182.1	2.1	2.1	7	150
MS200L-6	22	77.4	44.8	25.8	73.9	42.5	24.6	970	90	0.83	216.6	2.1	2.1	7	165
MS711-8	0.09	1.37	0.79	0.46	1.30	0.75	0.44	680	31.0	0.56	1.26	1.5	1.7	3	6
MS712-8	0.12	1.73	1.00	0.58	1.65	0.95	0.55	690	31.0	0.59	1.66	1.6	1.7	2.7	6.8
MS801-8	0.18	2.04	1.18	0.68	0.95	1.12	0.65	680	38.0	0.61	2.53	1.5	1.7	2.8	9.9
MS802-8	0.25	2.47	1.43	0.82	2.37	1.36	0.79	680	43.4	0.61	3.51	1.6	2	2.7	10.9
MS90S-8	0.37	3.11	1.80	1.04	2.97	1.71	0.99	680	49.7	0.63	5.20	1.6	1.8	2.8	14.8
MS90L-8	0.55	3.97	2.30	1.32	3.79	2.18	1.26	680	56.1	0.65	7.72	1.6	1.8	3	17.2
MS100L-8	0.75	4.80	2.78	1.60	4.59	2.64	1.53	710	61.2	0.67	10.09	1.7	2.1	3.5	17.5
MS100L-8	1.1	6.29	3.64	2.10	6.02	3.46	2.01	710	66.5	0.69	14.80	1.7	2.1	3.5	19.7

Note 220/440V 60Hz 220/380/440V 60Hz and special voltage models are available on request. Above motor weight only for reference.

- MS SERIES TECHNICAL DATA AT 50HZ

TYPE	Power (kW)	Current (A)						Speed (r/min)	Eff (%)	Power Factor Cos φ	Rated Torque Tn (N.m)	Tst/Tn (Times)	Tmax/Tn (Times)	Ist/In (Times)	Weight (kg)
		220V	380V	660V	230V	400V	690V								
MS112M-8	1.5	8.12	4.78	2.71	7.90	4.54	2.63	710	70.2	0.68	20.18	1.8	2.1	4.2	25.6
MS132S-8	2.2	11.0	6.35	3.66	10.5	6.03	3.50	720	74.2	0.71	29.18	2	2	5.5	35.5
MS132M-8	3	14.0	8.11	4.67	13.4	7.70	4.46	720	77.0	0.73	39.79	2	2	5.5	45
MS160M-8	4	18.2	10.5	6.06	17.4	9.99	5.79	730	79.2	0.73	52.33	1.9	2.1	6	60
MS160M-8	5.5	24.0	13.9	7.99	22.9	13.2	7.64	720	81.4	0.74	72.95	2	2.2	6	72
MS160L-8	7.5	31.6	18.3	10.5	30.2	17.4	10.1	720	83.1	0.75	99.48	1.9	2.2	6	92
MS180L-8	11	43													

HMS SERIES IE3 EFFICIENCY MOTORS TECHNICAL DATA AT 50HZ

TYPE	Power (kW)	Current (A)						Speed (r/min)	Eff (%)	Power Factor Cos φ	Rated Torque Tn (N.m)	Tst/Tn (Times)	Tmax/Tn (Times)	Ist/In (Times)	Weight (kg)
		220V	380V	660V	230V	400V	690V								
HMS801-2	0.75	2.97	1.72	0.99	2.85	1.64	0.95	2840	80.7	0.82	2.52	2.3	2.3	7.0	10.4
HMS802-2	1.10	4.21	2.43	1.40	4.02	2.32	1.34	2850	82.7	0.83	3.69	2.2	2.3	7.3	13.3
HMS90L1-2	1.50	5.57	3.21	1.86	5.32	3.07	1.77	2850	84.2	0.84	5.03	2.2	2.3	7.6	12.45
HMS90L2-2	2.20	7.91	4.57	2.64	7.56	4.37	2.52	2860	85.9	0.85	7.35	2.2	2.3	7.6	15.4
HMS100L1-2	3	10.39	6.00	3.46	9.94	5.74	3.31	2890	87.1	0.87	9.91	2.2	2.3	7.8	28.00
HMS112M-2	4.00	13.54	7.82	4.51	12.95	7.48	4.32	2890	88.1	0.88	13.22	2.2	2.3	7.8	34.4
HMS132S-2	5.50	18.39	10.62	6.13	17.59	10.16	5.86	2900	89.2	0.88	18.11	2.0	2.3	8.3	38.00
HMS132L-2	7.50	24.82	14.33	8.28	23.75	13.71	7.92	2910	90.1	0.88	24.61	2.0	2.3	8.3	65.00
HMS160M-2	11.00	35.57	20.53	11.86	34.02	19.64	11.34	2940	91.2	0.89	35.73	2.0	2.3	7.9	86.30
HMS160M-2	15.00	48.13	27.79	16.04	46.04	26.58	15.35	2930	91.9	0.89	48.89	2.0	2.3	8.1	101.40
HMS160L-2	18.50	59.04	34.09	19.68	56.47	32.61	18.83	2940	92.4	0.89	60.09	2.0	2.3	8.1	119.70
HMS180M-2	22	70	40.5	23.3	67	38.5	22.3	2940	92.7	0.89	71.5	2	2.3	8.2	150
HMS802-4	0.75	3.18	1.84	1.06	3.04	1.76	1.01	1410	82.5	0.75	5.08	2.3	2.3	6.6	12.8
HMS90L1-4	1.10	4.52	2.61	1.51	4.32	2.49	1.44	1420	84.1	0.76	7.40	2.3	2.3	6.8	16.2
HMS90L2-4	1.50	5.99	3.46	2.00	5.73	3.31	1.91	1420	85.3	0.77	10.09	2.3	2.3	7.0	19.2
HMS100L1-4	2.2	8.22	4.75	2.74	7.86	4.54	2.62	1440	86.7	0.81	14.59	2.3	2.3	7.6	25
HMS100L2-4	3	10.95	6.32	3.65	10.47	6.05	3.49	1440	87.7	0.82	19.90	2.3	2.3	7.6	29.5
HMS112L-4	4	14.45	8.34	4.82	13.82	7.98	4.61	1440	88.6	0.82	26.53	2.2	2.3	7.6	37.8
HMS132L-4	5.5	19.41	11.21	6.47	18.57	10.72	6.19	1450	89.6	0.83	36.22	2.0	2.3	7.8	58.7
HMS132LC-4	7.5	25.92	14.97	8.64	24.79	14.31	8.26	1450	90.4	0.84	49.40	2.0	2.3	7.9	68
HMS160M-4	11	37.16	21.45	12.39	35.54	20.52	11.85	1450	91.4	0.85	72.45	2.2	2.3	7.5	97
HMS160L-4	15	49.70	28.70	16.57	47.54	27.45	15.85	1450	92.1	0.86	98.79	2.2	2.3	7.7	111.8
HMS180M-4	18.5	61	35.3	20.3	58.3	33.5	19.4	1470	92.6	0.86	120.2	2	2.3	7.8	145
HMS180L-4	22	72.2	41.8	24.1	69	39.7	23	1470	93	0.86	142.9	2	2.3	7.8	165
HMS90L1-6	0.75	3.51	2.03	1.17	3.36	1.94	1.12	940	78.9	0.71	7.62	2.0	2.1	6.0	18.20
HMS90L2-6	1.1	4.88	2.82	1.63	4.67	2.70	1.56	950	81.0	0.73	11.06	2.0	2.1	6.0	24.30
HMS100L-6	1.5	6.54	3.77	2.18	6.25	3.61	2.08	950	82.5	0.73	15.08	2.0	2.1	6.5	25.70
HMS112M-6	2.2	9.26	5.34	3.09	8.85	5.11	2.95	960	84.3	0.74	21.89	2.0	2.1	6.6	32.00
HMS132S-6	3	12.43	7.18	4.14	11.89	6.86	3.96	970	85.6	0.74	29.54	2.0	2.1	6.8	34
HMS132M-6	4	16.34	9.44	5.45	15.63	9.03	5.21	970	86.8	0.74	39.38	2.0	2.1	6.8	45.00
HMS132L-6	5.5	21.87	12.63	7.29	20.92	12.08	6.97	970	88.0	0.75	54.15	2.0	2.1	7.0	63.00
HMS160M-6	7.5	27.96	16.14	9.32	26.75	15.44	8.92	970	89.1	0.79	73.84	2.0	2.1	7.0	103.00
HMS160L-6	11	39.96	23.07	13.32	38.22	22.07	12.74	970	90.3	0.80	108.30	2.0	2.1	7.2	140.90
HMS180L-6	15	53.4	30.9	17.8	51	29.3	17	970	91.2	0.81	147.7	2	2.1	7.3	170

Note 220/440V 60Hz 220/380/440V 60Hz and special voltage models are available on request. Above motor weight only for reference.

MSD SERIES DUAL SPEED MOTORS TECHNICAL DATA AT 400V

TYPE	Power (kW)				Speed (r/min)				Eff (%)		Power Factor Cos φ		Current (A)		Rated Torque Tn (N.m)		Tst/Tn (Times)		Ist/In (Times)		Tmax/Tn (Times)	
	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P
MSD711-2/4	0.3	0.22	2750	1350	60	55	0.80	0.73	0.90	0.79	1.04	1.56	1.7	1.7	3.5	3.5	1.9	1.9	1.7	1.7	3.5	3.5
MSD712-2/4	0.45	0.3	2790	1380	63	58	0.80	0.73	1.29	1.02	1.54	2.08	2	2	4	4	2	2	4	4	2	2
MSD801-2/4	0.55	0.45	2800	1380	65	66	0.85	0.74	1.44	1.33	1.88	3.11	2	2	4.5	4.5	2.1	2.1	4.5	4.5	2	2
MSD802-2/4	0.75	0.55	2800	1400	66	68	0.85	0.74	1.93	1.58	2.56	4.09	1.8	1.8	4.5	4.5	2	2	5.5	5.5	2	2
MSD90S-2/4	1.1	0.85	2820	1400	71	74	0.85	0.77	2.63	2.15	4.23	6.48	2	2	5	5	2	2	5	5	2	2
MSD90L-2/4	1.8	1.3	2830	1400	73	76	0.85	0.78	4.19	3.17	5.74	9.00	2	2	5	5	2	2	5	5	2	2
MSD100L-2/4	2.4	2.0	2830	1410	76	78	0.86	0.81	5.30	4.57	8.10	12.46	2	2	5.5	5	2	2	5.5	5	2	2
MSD100L2-2/4	3.0	2.4	2840	1420	77	79	0.89	0.83	6.32	5.28	11.10	17.19	2	1.9	5.5	5	2	1.9	5.5	5	2	1.9
MSD112M-2/4	4.0	3.3	2860	1430	79	82	0.89	0.83	8.21	7	15.03	26.71	2	1.8	5.5	5	2	2.2	5.5	5	2	2
MSD132S-2/4	5.5	4.5	2860	1440	79	83	0.89	0.84	11.29	9.32	20.03	33.16	2	1.5	5.5	5.5	2.2	1.9	5.5	5.5	2.2	2.2
MSD132M-2/4	8	6.5	2870	1440	80	84	0.89	0.85	16.22	13.14	26.62	43.77	2	2	6	6	2.2	2.2	6	6	2.2	2.2
MSD160M-2/4	11	9	2920	1450	82	87	0.89	0.85	21.51	17.57	35.98	59.28	1.8	1.8	7	6	2	2	7	7	2.2	2.2
MSD160L-2/4	14	11	2920	1450	82	87	0.90	0.86	27.38	21.22	49.06	79.03	2	2	7	7	2.2	2.2	7	7	2.2	2.2

MSD SERIES DUAL SPEED MOTORS TECHNICAL DATA AT 400V

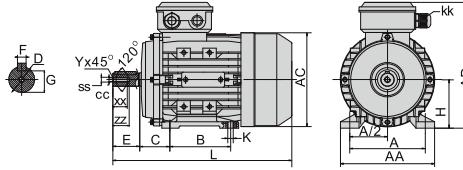
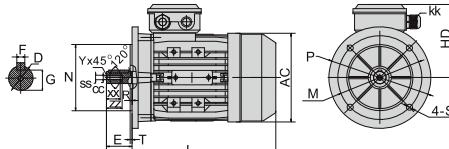
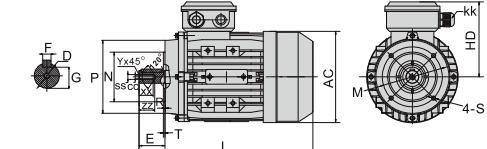
TYPE	Power (kW)				Speed (r/min)				Eff (%)		Power Factor Cos φ		Current (A)		Rated Torque Tn (N.m)		Tst/Tn (Times)		Ist/In (Times)		Tmax/Tn (Times)	
	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	0.68	0.55	0.69	0.80	1.25	1.54	2	2	3.6	2.2	2	2
MSD712-4/8	0.18	0.11	1380	680	55	36	0.77	0.60	0.81	0.90	1.73	2.11	2	2	4.5	3	2	2	4.5	3	2	2
MSD801-4/8	0.25	0.15	1380	680	58	40	0.77	0.60	0.81	0.90	1.73	2.11	2	2	4.5	3	2	2	4.5	3	2	2
MSD802-4/8	0.45	0.25	1390	685	68	48	0.80	0.60	1.19	1.25	3.09	3.49	1.8	2	4.5	3	2	2	4.5	3	2	2
MSD90S-4/8	0.55	0.3	1400	690																		

MSD SERIES DUAL SPEED MOTORS TECHNICAL DATA AT 400V

TYPE	Power (kW)		Speed (r/min)		Eff (%)		Power Factor Cos φ		Current (A)		Rated Torque Tn (N.m)		Tst/Tn (Times)		Ist/In (Times)		Tmax/Tn (Times)	
	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P
MSD712-4/6	0.22	0.15	1400	910	55	50	0.71	0.68	0.81	0.64	1.5	1.57	1.8	1.9	3.5	3.2	1.9	2
MSD801-4/6	0.3	0.22	1400	910	60	55	0.74	0.69	0.98	0.84	2.05	2.31	2	1.8	4.5	4	2	2
MSD802-4/6	0.45	0.3	1410	920	63	58	0.75	0.7	1.37	1.07	3.05	3.11	2	1.8	4.5	4	2	2
MSD90S-4/6	0.85	0.65	1410	920	66	61	0.76	0.65	1.9	1.64	4.47	4.67	1.7	1.7	5	4.5	2	2
MSD90L-4/6	1.1	0.85	1420	930	70	64	0.77	0.67	2.36	2.02	5.92	6.16	1.7	1.7	5	4.5	2	2
MSD100L1-4/6	1.5	1.1	1420	940	72	67	0.85	0.75	3.11	2.3	8.88	8.94	1.8	1.8	6	5	2	2
MSD100L2-4/6	2.2	1.5	1430	950	74	70	0.85	0.75	4.04	3.3	11.75	12.06	1.8	1.8	6	5	2	2
MSD112M-4/6	2.8	2.2	1430	950	76	70	0.8	0.70	5.22	4.42	14.69	15	2	1.8	6	5	2.2	2.2
MSD132S-4/6	4	3	1440	960	82	78	0.81	0.72	7.17	5.65	21.9	21.9	2	2	7	6	2.2	2.2
MSD132M-4/6	5.5	4	1450	970	83	80	0.82	0.74	9.54	7.31	29.5	29.5	2	2	7	6	2.3	2.3
MSD160M-4/6	8	6.5	1460	970	84	81	0.84	0.78	13.5	10.3	44.3	44.3	1.8	1.8	7	6	2.3	2.3
MSD160L-4/6	11	9	1460	970	84	81	0.85	0.79	17.8	13.5	57.6	59.1	1.8	1.8	7	6	2.3	2.3

MSD SERIES EFFICIENCY MOTORS TECHNICAL DATA AT 400V

TYPE	Power (kW)		Speed (r/min)		Eff (%)		Power Factor Cos φ		Current (A)		Rated Torque Tn (N.m)		Tst/Tn (Times)		Ist/In (Times)		Tmax/Tn (Times)	
	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P
MSD801-6/8	0.18	0.11	900	680	50	42	0.69	0.65	0.75	0.58	1.91	1.54	1.5	1.5	3.5	3	1.5	1.5
MSD802-6/8	0.25	0.18	920	700	54	46	0.7	0.66	0.95	0.86	2.60	2.46	1.7	1.5	3.5	3	1.5	1.7
MSD90S-6/8	0.45	0.35	930	680	58	50	0.72	0.68	1.28	1.06	3.80	3.51	1.5	1.4	4	3	1.8	1.7
MSD90L-6/8	0.65	0.45	940	685	63	54	0.73	0.69	1.73	1.43	5.59	5.16	1.5	1.4	4	3	1.8	1.7
MSD100L1-6/8	0.75	0.55	950	700	69	63	0.74	0.74	2.12	1.70	7.54	7.50	1.5	1.4	5	4	2	1.8
MSD100L2-6/8	1.1	0.75	955	705	71	65	0.76	0.76	2.76	2.19	10.3	10.16	1.5	1.4	5	4	2	1.8
MSD112M-6/8	1.8	1.3	960	710	72	64	0.71	0.71	3.53	3.02	12.43	12.78	1.5	1.5	5	5.5	2	1.8
MSD132S-6/8	2.4	1.8	970	720	76	70	0.71	0.7	5.88	4.42	21.66	19.90	1.6	1.4	6	5.5	2.3	2
MSD132M-6/8	3.7	2.6	970	720	78	74	0.71	0.7	7.82	5.01	29.54	24.37	1.6	1.4	6	5.5	2.3	2
MSD160M-6/8	6	4.5	970	720	79	76	0.78	0.72	10.54	8.70	44.30	43.77	1.8	1.7	6	5.5	2.5	2
MSD160L-6/8	8	6	973	720	80	77	0.79	0.73	13.70	11.55	59.89	59.69	1.8	1.7	6	5.5	2.5	2

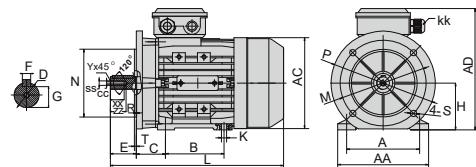
IMB3

IMB5

IMB14

B3 OVERALL & INSTALLATION DIMENTION

Frame	H	A	B	C	D	E	F	G	K	AA	AD	AC	L	KK	SS	XX	ZZ	CC	Y
56	56	90	71	36	9	20	3	7.2	5.8X5.8	110	156/151	0112	195	1-M16X1.5	M3	8	12	2.5	0.5
63	63	100	80	40	11	23	4	8.5	7X10	120	173/169	0121	230	1-M16X1.5	M4	10	15	3.3	0.8
71	71	112	90	45	14	30	5	11	7X10	132	188/184	0140	260	1-M20X1.5	M5	12	18	4.2	0.8
80	80	125	100	50	19	40	6	15.5	10X13	160	217/212	0156	295	1-M20X1.5	M6	16	22	5	1
90S	90	140	100	56	24	50	8	20	10X13	175	235/230	0175	315	1-M20X1.5	M8	20	25	6.8	1
90L1/L2	90	140	125	56	24	50	8	20	10X13	175	235/230	0175	315	1-M20X1.5	M8	20	25	6.8	1
100	100	160	140	63	28	60	8	24	12X16	196	253/248	0200	400	1-M20X1.5	M10	22	28	8.5	1.5
112M/L	112	190	140	70	28	60	8	24	12X16	220	282/274	0220	400/440	2-M25X1.5	M10	22	28	8.5	1.5
132S	132	216	140	89	38	80	10	33	12X16	252	325/317	0260	440	2-M25X1.5	M12	28	34	10.2	1.5
132ML	132	216	178	89	38	80	10	33	12X16	252	325/317	0260	480/500	2-M25X1.5	M12	28	34	10.2	1.5
132LC	132	216	178	89	38	80	10	33	12X16	252	325/317	0260	530	2-M25X1.5	M12	28	34	10.2	1.5
160M/L	160	254	210/254	108	42	110	12	37	15X19	290	390	0320	640	2-M32X1.5	M16	35	42	14.2	2
180ML	180	279	241/279	121	48	110	14	42.5	15X25	360	355	0360	670/710	2-M32X1.5	M16	35	42	14.2	2
200	200	318	300	133	55	110	16	49	19X29	375	475	0360	710	2-M32X1.5	M20	42,0	53	18,2	2

B5 OVERALL & INSTALLATION DIMENTION

Frame	B5					B5R					D	E	F	G	KK	AC	HD	L	SS	XX	ZZ	CC	Y	
	N	M	P	T	S	R	N	M	P	T														
56	050	065	080	2.5	M5	0	080	0100	0120	3.0	M6	011	23	4	8.5	1-M16X1.5	0121	10/106	222	M4	10	15	3.3	0.8
63	060	075	090	2.5	M5	0	080	0110	0130	3.0	M6	011	23	4	8.5	1-M16X1.5	0121	10/106	222	M4	10	15	3.3	0.8
71	070	085	0105	2.5	M6	0	095	0115	0140	3.0	M8	014	30	5	11	1-M20X1.5	0140	117/113	260	M5	12	18	4.2	0.8
80	080	0100	0120	3.0	M6	0	0110	0130	0160	3.5	M8	019	40	6	15.5	1-M20X1.5	0156	137/132	295	M6	16	22	5	1
90S	095	0115	0140	3.0	M8	0	0110	0130	0160	3.5	M8	024	50	8	20	1-M20X1.5	0175	145/140	315	M8	20	25	6.8	1
90L1/L2	095	0115	0140	3.0	M8	0	0110	0130	0160	3.5	M8	024	50	8	20	1-M20X1.5	0175	145/140	335/365	M8	20	25	6.8	1
100	0110	0130	0160	3.5	M8	0	0130	0165	0200															

IMB35



Frame	H	B35						B35R						A	B	C	D	E	F
		M	N	P	T	R	S	N	M	P	T	R	S						
56	56	Ø100	Ø80	Ø120	3.0	0	Ø7							90	71	36	9	20	3
63	63	Ø115	Ø95	Ø140	3.0	0	Ø10							100	80	40	11	23	4
71	71	Ø130	Ø110	Ø160	3.5	0	Ø10	Ø95	Ø115	Ø140	3.0	0	Ø10	112	90	45	14	30	5
80	80	Ø165	Ø130	Ø200	3.5	0	Ø12	Ø110	Ø130	Ø160	3.5	0	Ø10	125	100	50	19	40	6
90S	90	Ø165	Ø130	Ø200	3.5	0	Ø12	Ø110	Ø130	Ø160	3.5	0	Ø12	140	100	56	24	50	8
90L1/L2	90	Ø165	Ø130	Ø200	3.5	0	Ø12	Ø110	Ø130	Ø160	3.5	0	Ø12	140	125	56	24	50	8
100	100	Ø215	Ø180	Ø250	4.0	0	Ø15	Ø130	Ø165	Ø200	3.5	0	Ø12	160	140	63	28	60	8
112	112	Ø215	Ø180	Ø250	4.0	0	Ø15	Ø130	Ø165	Ø200	3.5	0	Ø12	190	140	70	28	60	8
132S	132	Ø265	Ø230	Ø300	4.0	0	Ø15	Ø180	Ø215	Ø250	4.0	0	Ø15	216	140	89	38	80	10
132M/L	132	Ø265	Ø230	Ø300	4.0	0	Ø15	Ø180	Ø215	Ø250	4.0	0	Ø15	216	178	89	38	80	10
132LC	132	Ø265	Ø230	Ø300	4.0	0	Ø15	Ø180	Ø215	Ø250	4.0	0	Ø15	216	178	89	38	80	10
160M/L	160	Ø300	Ø250	Ø350	5.0	0	Ø19						254	²¹⁹ / ₂₅₄	108	42	110	12	
180M/L	180	300	250	360	5.0	0	Ø19						279	²⁴¹ / ₂₇₉	121	48	110	14	
200	200	350	300	400	5.0	0	Ø19						318	³⁰⁵ / ₃₁₃	133	55	110	16	

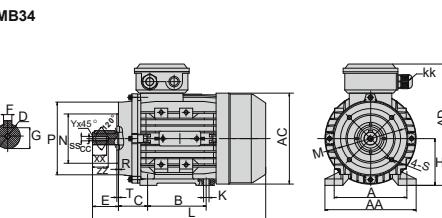
Frame	G	K	KK		AA	AD	AC	L	SS	XX	ZZ	CC	Y
			M	N									
56	7.2	5.8X5.8	1-M16X1.5		110	156/151	120	195	M3	8	12	2.5	0.5
63	8.5	7X10	1-M16X1.5		120	173/169	130	230	M4	10	15	3.3	0.8
71	11	7X10	1-M20X1.5		132	188/184	145	260	M5	12	18	4.2	0.8
80	15.5	10X13	1-M20X1.5		160	217/212	165	295	M6	16	22	5	1
90S	20	10X13	1-M20X1.5		175	235/230	185	315	M8	20	25	6.8	1
90L1/L2	20	10X13	1-M20X1.5		175	235/230	185	335/365	M8	20	25	6.8	1
100	24	10X13	1-M20X1.5		196	252/247	205	400	M10	22	28	8.5	1.5
112	24	12X16	2-M25X1.5		220	292/284	230	400	M10	22	28	8.5	1.5
132S	33	12X16	2-M25X1.5		252	325/317	270	440	M12	28	34	10.2	1.5
132M/L	33	12X16	2-M25X1.5		262	325/317	270	480/500	M12	28	34	10.2	1.5
132LC	33	12X16	2-M25X1.5		292	325/317	270	530	M12	28	34	10.2	1.5
160M/L	37	15X19	2-M32X1.5		290	290	320	640	M16	35	42	14.2	2
180M/L	42.5	15X25	2-M32X1.5		355	455	360	670/710	M16	35.0	42	14.2	2
200	49	19X29	2-M32X1.5		375	475	360	710	M20	42.0	53	18.2	2

B34 OVERALL & INSTALLATION DIMENTION

Frame	H	B34						A	B	C	D	E	F	G	K	KK		
		M	N	P	T	R	S											
56	56	Ø65	Ø50	Ø80	2.5	0	M5	90	71	36	Ø9	20	3	7.2	5.8X5.8	1-M16X1.5		
63	63	Ø75	Ø60	Ø90	2.5	0	M5	Ø90	Ø100	100	80	40	Ø11	23	4	8.5	7X10	1-M16X1.5
71	71	Ø85	Ø70	Ø105	2.5	0	M6	Ø95	Ø115	112	90	45	Ø14	30	5	11	7X10	1-M20X1.5
80	80	Ø100	Ø80	Ø120	3.0	0	M6	Ø110	Ø130	125	100	50	Ø19	40	6	15.5	10X13	1-M20X1.5
90S	90	Ø115	Ø95	Ø140	3.0	0	M8	Ø110	Ø130	140	100	56	Ø24	50	8	20	10X13	1-M20X1.5
90L1/L2	90	Ø115	Ø95	Ø140	3.0	0	M8	Ø110	Ø130	140	125	56	Ø24	50	8	20	10X13	1-M20X1.5
100	100	Ø130	Ø110	Ø160	3.5	0	M8	Ø130	Ø165	160	140	63	Ø28	60	8	24	10X13	1-M20X1.5
112	112	Ø130	Ø110	Ø160	3.5	0	M8	Ø130	Ø165	190	140	70	Ø28	60	8	24	12X16	2-M25X1.5
132S	132	Ø165	Ø130	Ø200	3.5	0	M10	Ø180	Ø215	216	140	89	Ø38	80	10	33	12X16	2-M25X1.5
132M/L	132	Ø165	Ø130	Ø200	3.5	0	M10	Ø180	Ø215	216	178	89	Ø38	80	10	33	12X16	2-M25X1.5
132LC	132	Ø165	Ø130	Ø200	3.5	0	M10	Ø180	Ø215	216	178	89	Ø38	80	10	33	12X16	2-M25X1.5

Frame	B34B				AC	AD	AA	L	SS	XX	ZZ	CC	Y
	P	T	R	S									
56					Ø120	156/151	110	195	M3	8	12	2.5	0.5
63	Ø120	3.0	0	M6	Ø130	173/169	120	230	M4	10	15	3.3	0.8
71	Ø140	3.0	0	M8	Ø145	188/184	132	260	M5	12	18	4.2	0.8
80	Ø160	3.5	0	M8	Ø165	217/212	160	295	M6	16	22	5	1
90S	Ø160	3.5	0	M8	Ø180	235/230	175	315	M8	20	25	6.8	1
90L1/L2	Ø160	3.5	0	M8	Ø185	235/230	175	³³⁵ / ₃₆₅	M8	20	25	6.8	1
100	Ø200	3.5	0	M10	Ø205	252/247	196	400	M10	22	28	8.5	1.5
112	Ø200	3.5	0	M10	Ø230	292/284	220	400	M10	22	28	8.5	1.5
132S	Ø250	4.0	0	M12	Ø270	325/317	252	440	M12	28	34	10.2	1.5
132M/L	Ø250	4.0	0	M12	Ø270	325/317	252	⁴⁸⁰ / ₅₀₀	M12	28	34	10.2	1.5
132LC	Ø250	4.0	0	M12	Ø270	325/317	252	530	M12	28	34	10.2	1.5

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Frame	H	B34						A	B	C	D	E	F					
		M	N	P	T	R	S											
56	56	Ø65	Ø50	Ø80	2.5	0	M5	90	71	36	Ø9	20	3	7.2	5.8X5.8	1-M16X1.5		
63	63	Ø75	Ø60	Ø90	2.5	0	M5	Ø90	Ø100	100	80	40	Ø11	23	4	8.5	7X10	1-M16X1.5
71	71	Ø85	Ø70	Ø105	2.5	0	M6	Ø95	Ø115	112	90	45	Ø14	30	5	11	7X10	1-M20X1.5
80																		

GMS SERIES IE4 EFFICIENCY MOTORS TECHNICAL DATA AT 50HZ

TYPE	Power (kW)	Current (A)						Speed (r/min)	Eff (%)	Power Factor Cos φ	Tst/Tn (Times)	Tmax/Tn (Times)	Ist/In (Times)	Weight (kg)
		220V	380V	660V	230V	400V	690V							
GMS801-2	0,75	2,95	1,71	0,99	2,82	1,62	0,94	2900	83,5	0,8	3,7	3,9	8,8	9,5
GMS802-2	1,1	4,13	2,39	1,37	3,95	2,27	1,32	2910	85,2	0,82	4	4,2	10	12
GMS90S-2	1,5	5,61	3,25	1,87	5,37	3,09	1,79	2910	86,5	0,81	3,6	2,8	9,6	14,5
GMS90L-2	2,2	7,91	4,58	2,64	7,56	4,35	2,52	2910	88	0,83	4	4,2	10,5	18,5
GMS100L-2	3	9,81	5,68	3,27	9,39	5,4	3,13	2910	89,1	0,9	3,7	2,9	11	28
GMS112M-2	4	12,82	7,42	4,27	12,3	7,05	4,09	2920	90	0,91	3,5	2,6	10,5	35
GMS132S-2	5,5	18,05	10,45	6,02	17,3	9,93	5,63	2940	90,9	0,9	3,4	2,3	10,5	49
GMS132M-2	7,5	24,18	14	8,06	23,1	13,3	7,52	2940	91,7	0,91	3,8	2,3	10	59
GMS160M1-2	11	34,18	19,79	11,4	32,6	18,8	10,9	2950	92,6	0,91	3,5	2,5	10	95
GMS160M2-2	15	42,35	26,52	14,12	43,9	25,2	14,6	2960	93,3	0,92	3,6	2,5	10	116
GMS160L-2	18,5	55,64	32,21	18,55	53,3	30,6	17,8	2960	93,7	0,93	3,8	2,5	10,3	136
GMS801-4	0,55	2,56	1,48	0,85	2,46	1,41	0,82	1440	83,9	0,67	3,4	3,7	6,8	11
GMS802-4	0,75	3,58	2,07	1,19	3,28	1,97	1,09	1440	85,7	0,67	3,7	4	7,3	13
GMS90S-4	1,1	4,8	2,78	1,6	4,59	2,64	1,53	1450	87,2	0,69	4,8	3,8	8,2	18
GMS90L-4	1,5	6,29	3,64	2,1	6,01	3,46	2	1450	88,2	0,71	4,8	3,8	9,2	21
GMS100L1-4	2,2	8,5	4,92	2,83	8,12	4,67	2,71	1460	89,5	0,76	3,5	3	9,5	26
GMS100L2-4	3	11,66	6,75	3,89	11,1	6,41	3,7	1460	90,4	0,75	3,8	3,4	9,5	33
GMS112M-4	4	14,7	8,51	4,9	14	8,08	4,59	1460	91,1	0,8	4	3	9,8	41
GMS132S-4	5,5	19,81	11,47	6,6	18,8	10,9	6,26	1470	91,9	0,8	3,4	2,1	10	56
GMS132M-4	7,5	25,27	14,63	8,42	25,1	13,9	8,37	1470	92,6	0,81	4,4	2,2	10,2	74
GMS160M-4	11	37064	21,79	12,55	36,1	20,7	12	1475	93,3	0,82	2,8	2,2	9,1	100
GMS160L-4	15	50,73	29,37	16,91	48,3	27,9	16,1	1475	93,9	0,83	3,2	2,2	9,2	126
GMS90S-6	0,75	3,78	2,19	1,26	3,61	2,08	1,2	960	82,7	0,63	2,8	2,4	5,7	15
GMS90L-6	1,1	5,25	3,04	1,75	5,03	2,89	1,68	960	84,5	0,65	3,1	2,5	5,9	20
GMS100L-6	1,5	6,36	3,68	2,12	6,09	3,5	2,03	965	85,9	0,72	2,7	1,9	6,5	28
GMS112M-6	2,2	9,05	5,24	3,02	9,16	4,98	3,05	970	87,4	0,69	3	2,6	7,5	35
GMS132S-6	3	12,51	7,24	4,17	12	6,88	3,99	975	88,6	0,71	2,5	1,9	7,1	47
GMS132M1-6	4	15,86	9,18	5,29	15,2	8,72	5,05	975	89,5	0,74	2,8	1,8	8	55
GMS132M2-6	5,5	21,28	12,32	7,09	20,3	11,7	6,78	975	90,5	0,75	3,3	1,8	8,2	68
GMS160M-6	7,5	28	16,21	9,33	26,7	15,4	8,89	980	91,3	0,77	3,3	1,8	8,5	92
GMS160L-6	11	40,54	23,47	13,51	38,9	22,3	12,9	980	92,3	0,77	3,4	1,8	8,5	120

Note 220/440V 60Hz 220/380/440V 60Hz and special voltage models are available on request. Above motor weight only for reference.

IE4
IE5


TYC SERIES PERMANENT MAGNET BRUSHLESS SYNCHRONOUS MOTORS

TYC series permanent magnet brushless synchronous motor, with latest design in entirety, it's made of superior materials. It's have three frequency control function, have good performance, safety reliable operation, it can be maintained very conveniently, less wear, high efficient, long service time, low maintenance cost. These series motors can be used for general drive, range of industrial and agricultural production, daily life and other fields.

TYC SERIES PERMANENT MAGNET BRUSHLESS SYNCHRONOUS MOTORS TECHNICAL DATA

TYPE	Power (kW)	Rated Torque Tn (N.m)	Voltage (V)	Speed (r/min)	Current (A)	Power Factor Cos Φ	Magnets poles	Eff (%)	Cogging torque (%)	Pull-out torque	FVD Output frequency (Hz)
TYC 711-4	0,55	3,50	230	1500	1,7	0,95	6	83,9	3	2,2	75
TYC 712-4	0,75	4,77	230	1500	2,3	0,95	6	85,7	3	2,2	75
TYC 801-4	1,1	7,00	230	1500	3,3	0,95	6	87,2	3	2,2	75
TYC 802-4	1,5	9,55	230	1500	4,5	0,95	6	88,2	3	2,2	75
TYC 90S-4	2,2	14,0	230	1500	6,5	0,95	6	89,5	3	2,2	75
TYC 90L-4	3	19,1	400	1500	5,0	0,95	6	90,4	3	2,2	75
TYC 100L-4	4	25,5	400	1500	6,7	0,95	6	91,1	3	2,2	75
TYC 112M-4	5,5	35,0	400	1500	9,1	0,95	6	91,9	3	2,2	75
TYC 132S-4	7,5	47,7	400	1500	12,3	0,95	8	92,6	3	2,2	100
TYC 132M-4	11	70,0	400	1500	17,9	0,95	8	93,3	3	2,2	100
TYC 160M-4	15	95,5	400	1500	24,3	0,95	8	93,9	3	2,2	100
TYC 160L-4	18,5	117,8	400	1500	29,8	0,95	8	94,2	3	2,2	100
TYC 180M-4	22	140,1	400	1500	35,4	0,95	8	94,5	3	2,2	100
TYC 180L-4	30	191,0	400	1500	48,0	0,95	8	94,9	3	2,2	100
TYC 200L-4	37	235,5	400	1500	59,1	0,95	8	95,2	3	2,2	100
TYC 711-2	0,55	1,75	230	3000	1,8	0,95	6	81,5	3	2,2	150
TYC 712-2	0,75	2,39	230	3000	2,4	0,95	6	83,5	3	2,2	150
TYC 801-2	1,1	3,50	230	3000	3,4	0,95	6	86,5	3	2,2	150
TYC 802-2	1,5	4,77	230	3000	4,5	0,95	6	88	3	2,2	150
TYC 90S-2	2,2	7,0	230	3000	6,5	0,95	6	89,1	3	2,2	150
TYC 90L-2	3	9,5	400	3000	5,1	0,95	6	90	3	2,2	150
TYC 100L-2	4	12,7	400	3000	6,7	0,95	6	90,9	3	2,2	150
TYC 112M-4	5,5	17,5	400	3000	9,1	0,95	6	91,7	3	2,2	150
TYC 132S-2	7,5	23,9	400	3000	12,3	0,95	8	92,6	3	2,2	200
TYC 132M-2	11	35,0	400	3000	17,9	0,95	8	93,3	3	2,2	200
TYC 160M-2	15	47,7	400	3000	24,3	0,95	8	93,7	3	2,2	200
TYC 160L-2	18,5	58,9	400	3000	29,9	0,95	8	94	3	2,2	200
TYC 180M-2	22	70,0	400	3000	35,4	0,95	8	94,5	3	2,2	200
TYC 200L-2	30	95,5	400	3000	48,1	0,95	8	94,8	3	2,2	200
TYC 200L-2	37	117,8	400	3000	59,2	0,95	8	95	3	2,2	200
TYC 801-6	0,55	5,25	230	1000	1,8	0,95	6	80,9	3	2,2	50
TYC 802-6	0,75	7,16	230	1000	2,4	0,95	6	82,7	3	2,2	50
TYC 90S-6	1,1	10,50	230	1000	3,4	0,95	6	84,5	3	2,2	50
TYC 90L-6	1,5	14,32	230	1000	4,6	0,95	6	85,9	3	2,2	50
TYC 100-6	2,2	21,0	230	1000	6,7	0,95	6	87,4	3	2,2	50
TYC 112M-6	3	28,6	400	1000	5,1	0,95	6	88,6	3	2,2	50
TYC 132S-6	4	38,2	400	1000	6,8	0,95	6	89,5	3	2,2	50
TYC 132M-6	5,5	52,5	400	1000	9,2	0,95	6	90,5	3	2,2	50
TYC 160M-6	7,5	71,6	400	1000	12,5	0,95	8	91,3	3	2,2	75
TYC 160L-6	11	105,0	400	1000	18,1	0,95	8	92,3	3	2,2	75
TYC 180L-6	15	143,2	400	1000	24,4	0,95	8	93,4	3	2,2	75
TYC 200L-1	18,5	176,7	400	1000	30,0	0,95	8	93,7	3	2,2	75
TYC 200L-2	22	210,1	400	1000	35,5	0,95	8	94,2	3	2,2	75


ALUMINUM HOUSING
MYT SERIES
SINGLE-PHASE ASYNCHRONOUS MOTORS
OPERATING CONDITIONS

- Ambient temperature: -15°C ≤ 40°C
- Above sea level: not exceed 1000m
- Rated voltage: ±5%
- Voltage: 230V/50Hz
- Protection Class: IP44/IP54/IP55
- Insulation Class: B/F
- Cooling method: IC411
- Duty: continuous(S)

MATERIALS

- Housing: Aluminium
- Cover: Aluminium
- Terminal Box: PPO
- Fan: PP
- Fan Cover: A3
- Shaft: C45

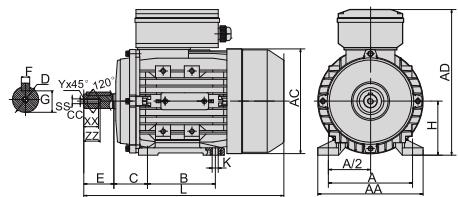


- MYT SERIES TECHNICAL DATA AT 230V 50Hz

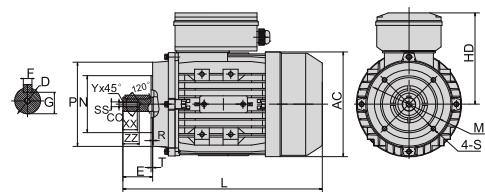
TYPE	Power (kW)		Speed (r/min)	Eff (%)	Power Factor Cos Φ	Rated Torque Tn (N.m)	Tst/Tn (Times)	Tmax/Tn (Times)	Starting Current (A)	Run Capacitor (μF/V)
MYT631-2	0.18	1.47	2700	56	0.95	0.64	0.65	1.7	5	10 μF/450V
MYT632-2	0.25	2.00	2700	57	0.95	0.88	0.65	1.7	7	12 μF/450V
MYT711-2	0.37	2.61	2710	65	0.95	1.30	0.70	1.7	10	20 μF/450V
MYT712-2	0.55	3.70	2740	68	0.95	1.92	0.70	1.7	15	25 μF/450V
MYT801-2	0.75	4.90	2740	70	0.95	2.61	0.75	1.7	20	30 μF/450V
MYT802-2	1.1	6.83	2740	73	0.96	3.83	0.75	1.7	30	40 μF/450V
MYT90S-2	1.5	9.18	2750	74	0.96	5.21	0.75	1.7	45	50 μF/450V
MYT90L1-2	1.85	11.17	2750	75	0.96	6.43	0.65	1.7	55	60 μF/450V
MYT90L2-2	2.2	13.11	2750	76	0.96	7.64	0.60	1.7	65	70 μF/450V
MYT100L-2	3	17.20	2850	79	0.96	10.05	0.60	1.7	75	90 μF/450V
MYT562-4	0.09	0.85	1370	50	0.92	0.33	0.75	1.7	2.5	6 μF/450V
MYT631-4	0.12	1.10	1380	52	0.92	0.83	0.75	1.7	3.5	10 μF/450V
MYT632-4	0.18	1.61	1380	53	0.92	1.25	0.75	1.7	5	12 μF/450V
MYT711-4	0.25	2.01	1320	57	0.95	1.81	0.75	1.7	7	16 μF/450V
MYT712-4	0.37	2.78	1340	61	0.95	2.64	0.75	1.7	10	20 μF/450V
MYT801-4	0.55	4.13	1350	63	0.92	3.89	0.70	1.7	15	25 μF/450V
MYT802-4	0.75	5.05	1350	68	0.95	5.31	0.70	1.7	20	35 μF/450V
MYT90S-4	1.1	7.09	1350	71	0.95	7.78	0.65	1.7	30	45 μF/450V
MYT90L-4	1.5	9.28	1370	74	0.95	10.46	0.65	1.7	45	50 μF/450V
MYT00L1-4	2.2	12.77	1400	78	0.96	15.0	0.47	1.7	65	70 μF/450V
MYT00L2-4	3.0	17.20	1400	79	0.96	20.46	0.47	1.7	75	90 μF/450V

Single phase: MY is 220V/50Hz, 240V/50Hz, 110V/60Hz, 115V/60Hz, 127V/60Hz, 110/220V/ 60Hz and special voltage models are available on request.

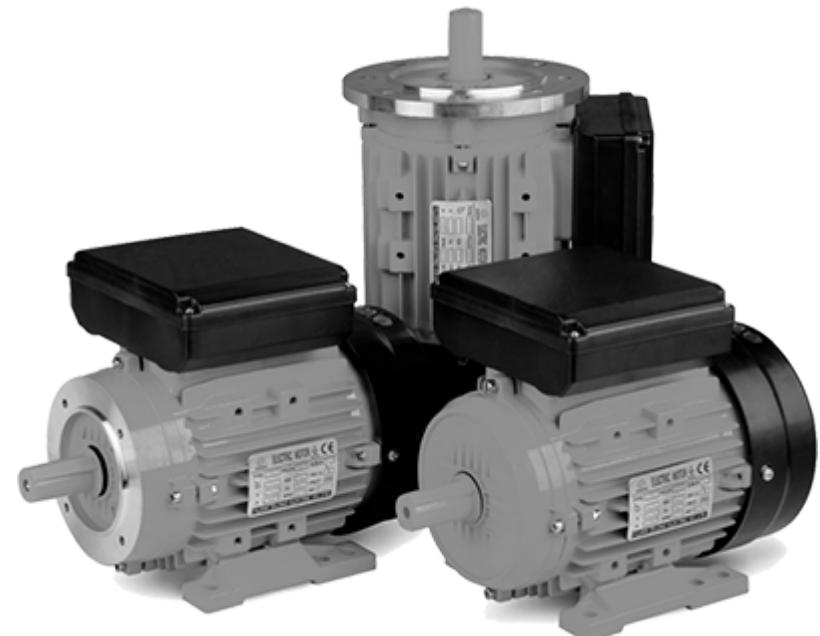
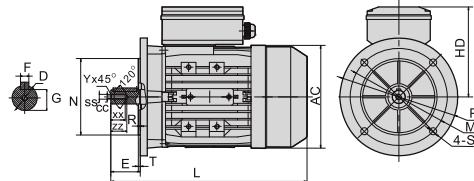
IMB3



IMB14



IMB5



ALUMINUM HOUSING

ML SERIES

SINGLE-PHASE DUAL CAPACITOR ASYNCHRONOUS MOTORS

OPERATING CONDITIONS

- Ambient temperature: $-15^{\circ}\text{C} \leq 40^{\circ}\text{C}$
- Above sea level: not exceed 1000m
- Rated voltage: $\pm 5\%$
- Voltage: 230V/50Hz
- Protection Class: IP44/IP54/IP55
- Insulation Class: B/F
- Cooling method: IC411
- Duty: continuous(S)

MATERIALS

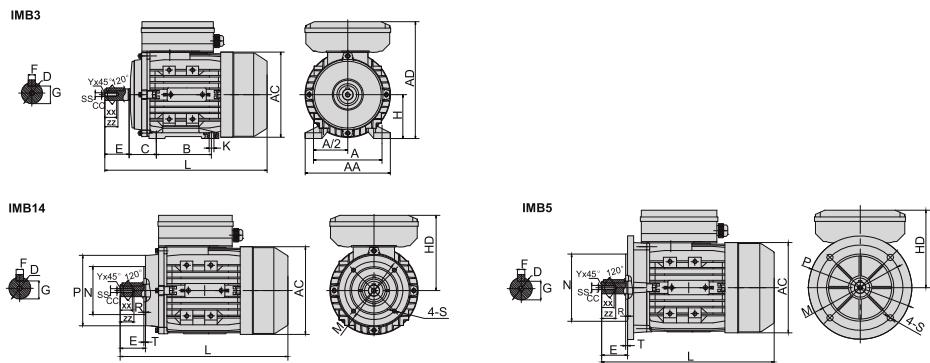
- Housing: Aluminium
- Cover: Aluminium
- Terminal Box: PPO
- Fan: PP
- Fan Cover: A3
- Shaft: C45

ML series aluminum housing single-phase dual-capacitor asynchronous motors, with latest design in entirety, It's made of selected superior materials and conform to the IEC standard.
ML motors have good performance, safety and reliable operation, nice appearance and can be maintained very conveniently, while with low noises, little vibration and at the same time of lightweight and simple construction. The composite performance is good, the multiple of starting torque is 1.8~2.5. These series motors are suitable for the occasion where the requirements of big starting torque and high over load, such as air-compressors, pumps, fans, medical apparatus instruments, and many other small machines.

ML SERIES TECHNICAL DATA AT 230V 50Hz

TYPE	Power (kW)	Current (A)	Speed (r/min)	Eff (%)	Power Factor Cos φ	Rated Torque Tn (N.m)	Tst/Tn (Times)	Tmax/Tn (Times)	Starting Current (A)	Run Capacitor (μF/V)	Starting Capacitor (μF/V)
ML631-2	0.18	1.37	2710	63	0.9	0.63	2.5	1.6	8	10 μF/450V	30 μF/250V
ML632-2	0.25	1.89	2710	64	0.9	0.88	2.5	1.6	10	12 μF/450V	40 μF/250V
ML711-2	0.37	2.42	2780	70	0.95	1.27	2.5	1.7	15	12 μF/450V	75 μF/250V
ML712-2	0.55	3.45	2790	73	0.95	1.88	2.5	1.7	20	16 μF/450V	100 μF/250V
ML801-2	0.75	4.54	2800	74	0.97	2.59	2.5	1.7	30	20 μF/450V	100 μF/250V
ML802-2	1.1	6.45	2810	76	0.97	3.74	2.5	1.7	40	25 μF/450V	150 μF/250V
ML90S-2	1.5	8.62	2810	78	0.97	5.10	2.5	1.8	55	40 μF/450V	150 μF/250V
ML90L-2	2.2	12.5	2810	79	0.97	7.48	2.2	1.8	75	50 μF/450V	250 μF/250V
ML100L-2	3	16.6	2830	80	0.98	10.12	2.2	2.0	95	60 μF/450V	400 μF/300V
ML112M1-2	3.7	21.48	2850	78	0.96	12.40	2.5	1.7	140	60 μF/450V	600 μF/300V
ML112M2-2	4.0	22.18	2850	80	0.98	13.41	2.5	1.7	150	60 μF/450V	600 μF/300V
ML631-4	0.12	1.04	1350	55	0.91	0.85	2.5	1.6	6	10 μF/450V	30 μF/250V
ML632-4	0.18	1.54	1360	56	0.91	1.26	2.5	1.6	8.5	12 μF/450V	40 μF/250V
ML711-4	0.25	1.94	1380	61	0.92	1.73	2.5	1.6	10	14 μF/450V	50 μF/250V
ML712-4	0.37	2.8	1380	62.5	0.92	2.56	2.5	1.5	15	16 μF/450V	75 μF/250V
ML801-4	0.55	3.8	1400	67	0.94	3.75	2.5	1.7	20	20 μF/450V	100 μF/250V
ML802-4	0.75	4.75	1410	73	0.94	5.08	2.5	1.7	30	25 μF/450V	150 μF/250V
ML90S-4	1.1	6.76	1410	74.5	0.95	7.45	2.2	1.8	40	30 μF/450V	150 μF/250V
ML90L-4	1.5	9.03	1420	76	0.95	10.09	2.2	1.8	55	40 μF/450V	200 μF/250V
ML100L1-4	2.2	12.6	1430	78	0.97	14.69	2.2	1.8	75	50 μF/450V	300 μF/250V
ML100L2-4	3	17.02	1440	79	0.97	19.90	2.2	1.8	95	60 μF/450V	400 μF/250V
ML112M1-4	3.7	20.7	1440	80	0.97	24.54	2.0	2.0	120	60 μF/450V	500 μF/250V
ML112M2-4	4.0	22.41	1440	80	0.97	26.54	2.5	1.7	150	60 μF/450V	500 μF/250V

Note: 220V/50Hz, 240V/50Hz, 110V/60Hz, 115V/60Hz, 110/220V/60Hz and special voltage models are available on request.



ML SERIES OVERALL & INSTALLATION DIMENSION

Frame Size	Installation Size												Overall dimension						Shaft end screw dimensions												
	A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	M	N	P	R	S	T	AA	AC	AD	HD	L	SS	XX	ZZ	CC	Y
71	112	90	45	14	30	5	11	71	7X10	85	70	105	0	M6	2.5	130	110	160	0	Φ10	3.5	132	Φ145	194	123	260	M5	12	18	4.2	0.8
80	125	100	50	19	40	6	15.5	80	10X13	100	80	120	0	M6	3.0	165	130	200	0	Φ12	3.5	157	Φ165	223	143	295	M6	16	22	5	1
90S	140	100	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	Φ12	3.5	172	Φ185	240	150	315	M8	20	25	6.8	1
90L	140	125	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	Φ12	3.5	172	Φ185	240	150	315	M8	20	25	6.8	1
100L	160	140	63	28	60	8	24	100	12X15	130	110	160	0	M8	3.5	215	180	250	0	Φ15	4.0	196	Φ205	260	160	400	M10	22	28	8.5	1.5
112M	190	140	70	28	60	8	24	112	12X15	130	110	160	0	M8	3.5	215	180	250	0	Φ15	4.0	222	Φ230	295	183	430	M10	22	28	8.5	1.5





CAST IRON HOUSING

Y2 EY2 SERIES

THREE-PHASE ASYNCHRONOUS MOTORS

Y2 series three-phase asynchronous motor is designed specially for European market, whose terminal box is located on the top of motor. The motor has a very compact structure and attractive appearance, the sizes and mounting dimensions are all in conformity with IEC standard. The motor has some good feature, such as high efficiency, energy- saving. High starting torque and easy maintenance etc.

OPERATING CONDITIONS

- Ambient temperature: $-15^{\circ}\text{C} \leq \text{temperature} \leq 40^{\circ}\text{C}$
- Above sea level: not exceed 1000m
- Rated voltage: $\pm 5\%$
- Voltage: 230V/50Hz
- Protection Class: IP44/IP54/IP55
- Insulation Class: B/F
- Cooling method: IC411
- Duty: continuous(S)

MATERIALS

- Housing: Cast Iron
- Cover: Cast Iron
- Terminal Box: Cast Iron
- Fan: PP
- Fan Cover: A3
- Shaft: C45

Y2 SERIES TECHNICAL DATA AT 380V 50Hz

TYPE	Rated Output (kW)	At Full Load							
		Speed (r/min)	Current (A)	Eff (%)	Power Factor	Rated Torque Tn (N.m)	Tst/In (Times)	Tst/Tn (Times)	Tmax/Tn (Times)
3000r/min 50Hz - Synchronous Speed 3000r/min 50Hz									
Y2-631-2	0.18	2670	0.69	52.8	0.65	0.63	6	2.2	2.4
Y2-632-2	0.25	2730	0.84	58.2	0.69	0.88	6	2.2	2.4
Y2-633-2	0.37	2750	1.1	63.9	0.72	1.3	6	2.2	2.4
Y2-711-2	0.37	2710	1.1	63.9	0.75	1.29	6	2.2	2.4
Y2-712-2	0.55	2710	1.5	69	0.78	1.9	6	2.2	2.4
Y2-713-2	0.75	2710	1.9	72.1	0.78	2.62	6	2.2	2.4
Y2-80M1-2	0.75	2730	1.9	72.1	0.79	2.59	6	2.2	2.4
Y2-80M2-2	1.1	2760	2.7	75	0.79	3.79	6	2.2	2.4
Y2-80M3-2	1.5	2730	3.5	77.2	0.82	5.12	6	2.2	2.4
Y2-80S-2	1.5	2770	3.5	77.2	0.84	5.04	6	2.2	2.4
Y2-90L1-2	2.2	2770	4.9	79.7	0.83	7.4	6	2.2	2.4
Y2-90L2-2	3	2800	6.5	81.5	0.83	10.1	6	2.2	2.4
Y2-100L1-2	3	2840	6.4	81.5	0.84	10.1	6	2.2	2.4
Y2-100L2-2	4	2840	8.4	83.1	0.85	13.4	6	2.2	2.4
Y2-112M-2	4	2840	8.4	83.1	0.86	13.6	6	2.2	2.4
Y2-112M-2	5.5	2840	11.2	84.7	0.87	18.24	7	2.2	2.3
Y2-132S1-2	5.5	2850	11.2	84.7	0.87	18.11	7.5	2.2	2.3
Y2-132S2-2	7.5	2800	15.1	86	0.87	24.53	7.5	2.2	2.3
Y2-132M1-2	9.2	2880	18.3	86	0.88	30	7.5	2	2.3
Y2-132M2-2	11	2900	21.2	87.6	0.88	35.85	7.5	2	2.2
Y2-160M1-2	11	2920	21.2	87.6	0.88	35.73	7.5	2	2.2
Y2-160M2-2	15	2930	28.2	88.7	0.89	48.72	7.5	2	2.2
Y2-160L-2	18.5	2930	34.6	89.3	0.9	60.1	7.5	2	2.2
Y2-180M-2	22	2940	41.3	89.9	0.9	71.46	7.5	2	2.2
Y2-200L1-2	30	2940	55.8	90.7	0.91	97.11	7.5	2	2.2
Y2-200L2-2	37	2940	68.5	91.2	0.91	119.8	7.5	2	2.2
Y2-225M-2	45	2940	82.9	91.7	0.9	144.7	7.5	2	2.3
Y2-250M-2	55	2950	100.8	92.1	0.9	176.9	7.5	2	2.3
Y2-280S-2	75	2950	136.6	92.7	0.9	241.2	7.5	2	2.3
Y2-280M-2	90	2970	161.6	93	0.9	289.4	7.5	2	2.3
Y2-200L1-2	30	2940	55.8	90.7	0.91	97.11	7.5	2	2.2
Y2-200L2-2	37	2940	68.5	91.2	0.91	119.8	7.5	2	2.2
Y2-225M-2	45	2940	82.9	91.7	0.9	144.7	7.5	2	2.3
Y2-250M-2	55	2950	100.8	92.1	0.9	176.9	7.5	2	2.3
Y2-280S-2	75	2950	136.6	92.7	0.9	241.2	7.5	2	2.3
Y2-280M-2	90	2970	161.6	93	0.9	289.4	7.5	2	2.3
Y2-215S-2	110	2970	196.9	93.3	0.9	352.5	7.5	2	2.3
Y2-315M1-2	132	2970	235.7	93.5	0.9	423	7.5	2	2.3
Y2-315M2-2	160	2970	281.7	93.8	0.91	512.8	7.5	2	2.3
Y2-315L1-2	200	2980	351.4	94	0.91	640.9	7.1	1.8	2.2
Y2-315L2-2	250	2980	439.2	94	0.91	801.2	7.1	1.8	2.2
Y2-335L1-2	315	2980	553.4	94	0.92	1009.5	7.1	1.8	2.2
1500r/min 50Hz - Synchronous Speed 1500r/min 50Hz									
Y2-631-4	0.12	1320	0.57	50	0.59	0.85	6	2.3	2.4
Y2-632-4	0.18	1320	0.74	57	0.61	1.27	6	2.3	2.4
Y2-633-4	0.25	1320	0.94	61.5	0.63	1.77	6	2.2	2.4
Y2-711-4	0.25	1350	0.86	61.5	0.64	1.77	6	2.2	2.4
Y2-712-4	0.37	1350	1.2	66	0.65	2.58	6	2.2	2.4
Y2-713-4	0.55	1350	1.6	70	0.66	3.81	6	2.2	2.4
Y2-80M1-4	0.55	1350	1.6	70	0.72	3.83	6	2.2	2.4
Y2-80M2-4	0.75	1370	2	72.1	0.74	5.19	6	2.2	2.4
Y2-80M3-4	1.1	1380	2.9	75	0.75	7.56	6	2.2	2.4
Y2-90S-4	1.1	1370	2.8	75	0.75	7.5	6	2.2	2.4
Y2-90L1-4	1.5	1380	3.7	77.2	0.78	10.23	6	2.2	2.4
Y2-90L2-4	2.2	1390	5.2	79.7	0.78	15	6	2.2	2.4
Y2-100L1-4	2.2	1400	5.2	79.7	0.79	14.8	6	2.2	2.4
Y2-100L2-4	3	1400	6.9	81.5	0.8	20.18	6	2.2	2.4
Y2-112M-4	4	1400	8.9	83.1	0.8	25.71	7	2.2	2.3
Y2-112M2-4	5.5	1420	11.9	84.7	0.81	36.48	7	2.2	2.3
Y2-132S-4	5.5	1420	11.8	84.7	0.81	36.22	7	2.2	2.2
Y2-132M-4	7.5	1430	15.6	86	0.82	49.4	7	2.2	2.2
Y2-132L1-4	9.2	1440	19.1	86	0.83	60.18	7	2.2	2.2
Y2-132L2-4	10	1450	20.4	87.6	0.84	65.41	7	2.2	2.2
Y2-132L3-4	11	1450	22.2	87.6	0.85	71.95	7	2.2	2.2
Y2-160M-4	11	1460	21.9	87.6	0.85	71.95	7.5	2.2	2.2
Y2-160L-4	15	1460	29.5	88.7	0.85	98.12	7.5	2.2	2.2
Y2-180M-4	18.5	1460	36.6	89.3	0.86	120.2	7.5	2.2	2.2
Y2-180L-4	22	1460	43.2	89.9	0.87	142.9	7.5	2.2	2.2
Y2-200L-4	30	1460	58.4	90.7	0.87	194.9	7.5	2.2	2.2
Y2-225S-4	37	1470	70.9	91.2	0.86	238.8	7.5	2.2	2.3
Y2-225M-4	45	1470	85.7	91.7	0.86	290.4	7.5	2.2	2.3
Y2-250M-4	55	1470	104.3	92.1	0.86	354.9	7.2	2.2	2.3
Y2-280S-4	75	1480	141.3	92.7	0.87	484	7.2	2.2	2.3
Y2-280M-4	90	1480	169	93	0.87	580.7	7.2	2.2	2.3
Y2-215S-4	110	1480	203.6	93.3	0.87	705	7.2	2.2	2.3
Y2-315M-4	132	1480	243.8	93.5	0.87	846	7.2	2.2	2.3
Y2-315L1-4	160	1480	291.2	93.8	0.87	1025.5	7.2	2.2	2.3
Y2-315L2-4	200	1490	363.2	94	0.88	1281.9	6.9	2.1	2.2
Y2-335M-4	250	1490	449	94	0.88	1602.3	6.9	2.1	2.2
Y2-355L-4	315	1490	565.7	94	0.89	2019	6.9	2.1	2.2

Y2 SERIES TECHNICAL DATA AT 380V 50Hz

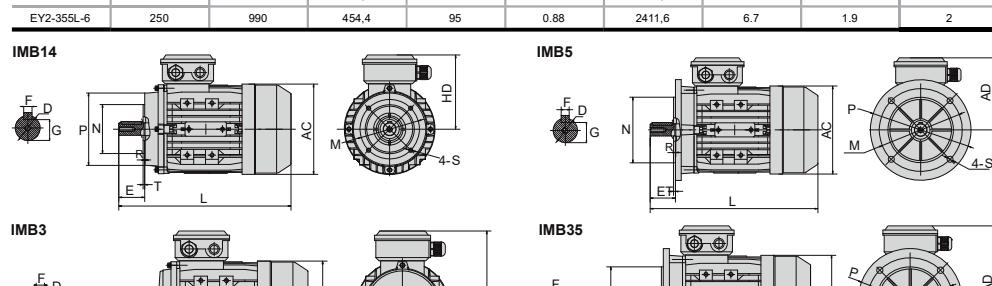
TYPE	Rated Output (kW)	At Full Load							
		Speed (r/min)	Current (A)	Eff (%)	Power Factor	Rated Torque Tn (N.m)	Tst/In (Times)	Tst/Tn (Times)	
1000r/min 50Hz - Synchronous Speed 1000r/min 50Hz									
Y2-80M1-6	0.37	890	1.4	59.7	0.70	3.97	4.7	1.9	2
Y2-80M2-6	0.55	890	1.8	65.8	0.72	5.9	4.7	1.9	2.1
Y2-90S-6	0.75	910	2.3	70	0.72	7.87	5.5	2	2.1
Y2-90L-6	1.1	910	3.1	72.9	0.73	11.54	5.5	2	2.1
Y2-100L-6	1.5	920	4	75.2	0.75	15.57	5.5	2	2.1
Y2-112M-6	2.2	940	5.7	77.7	0.76	22.35	6.5	2	2.1
Y2-132S-6	3	960	7.5	79.7	0.76	29.84	6.5	2.1	2.1
Y2-132M1-6	4	960	9.8	81.4	0.76	39.79	6.5	2.1	2.1
Y2-132M-6	5.5	960	13.1	83	0.77	54.71	6.5	2.1	2.1
Y2-160M-6	7.5	970	17.5	84.7	0.77	73.84	6.5	2	2.1
Y2-160L-6	11	970	24.8	86.4	0.78	108.3	6.5	2	2.1
Y2-180L-6	15	970	32.1	87.7	0.81	147.7	7	2	2.1
Y2-200L-6	18.5	970	39.2	88.6	0.81	182.1	7	2.1	2.1
Y2-200L2-6	22	970	45.2	89.2	0.83	216.6	7	2.1	2.1
Y2-225M-6	30	980	60.2	90.2	0.84	292.3	7	2	2.1
Y2-250M-6	37	980	72	90.8	0.86	360.6	7	2.1	2.1
Y2-280S-6	45	980	87	91.4	0.86	438.5	7	2.1	2
Y2-280M-6	55	980	105.7	91.9	0.86	536	7	2.1	2
Y2-315S-6	75	990	143.1	92.6	0.86	730.9	7	2	2
Y2-315M-6	90	990	171.2	92.9	0.86	868.2	7	2	2
Y2-315L1-6	110	990	208.3	93.3	0.86	1061.1	6.7	2	2
Y2-315L2-6	132	990	246.6	93.5	0.87	1273.3	6.7	2	2
Y2-355M1-6	160	990	294.5	93.8	0.88	1543.4	6.7	1.9	2
Y2-355M2-6	200	990	367.4	94	0.88	1929.3	6.7	1.9	2
Y2-355L-6	250	990	459.2	94	0.88	2411.6	6.7	1.9	2
750r/min 50Hz - Synchronous Speed 7									

EY2 SERIES IE2 EFFICIENCY MOTORS TECHNICAL DATA AT 380V 50Hz

TYPE	Rated Output (kW)	At Full Load				Rated Torque Tn (N.m)	Tst/In (Times)	Tst/Tn (Times)	Tmax/Tn (Times)
		Speed (r/min)	Current (A)	Eff (%)	Power Factor				
3000r/min 50Hz - Synchronous Speed 3000r/min 50Hz									
EY2-80M1-2	0.75	2770	1.8	77.4	0.84	2.59	6	2.2	2.4
EY2-80M2-2	1.1	2770	2.5	79.6	0.83	3.79	6	2.2	2.4
EY2-90S-2	1.5	2840	3.3	81.3	0.84	5.04	6	2.2	2.4
EY2-90L-2	2.2	2840	4.7	83.2	0.85	7.4	6	2.2	2.4
EY2-100L-2	3	2840	6.2	84.6	0.87	10.09	7	2.2	2.3
EY2-112M-2	4	2800	8.1	85.8	0.87	13.64	7.5	2.2	2.3
EY2-132S1-2	5.5	2900	10.9	87	0.88	18.11	7.5	2	2.2
EY2-132S2-2	7.5	2920	14.7	88.1	0.88	24.53	7.5	2	2.2
EY2-160M1-2	11	2940	20.8	89.4	0.9	35.73	7.5	2	2.2
EY2-160M2-2	15	2940	22.7	90.3	0.91	48.72	7.5	2	2.2
EY2-160L-2	18.5	2940	34	90.9	0.91	60.09	7.5	2	2.2
EY2-180M-2	22	2940	40.7	91.3	0.9	71.46	7.5	2	2.3
EY2-200L1-2	30	2950	55.1	92	0.9	97.12	7.5	2	2.3
EY2-200L2-2	37	2950	67.5	92.5	0.9	119.8	7.5	2	2.3
EY2-225M-2	45	2970	81.8	92.9	0.9	144.7	7.5	2	2.3
EY2-250M-2	55	2970	99.6	93.2	0.9	176.9	7.5	2	2.3
EY2-280S-2	75	2970	135	93.8	0.9	241.2	7.5	2	2.3
EY2-280M-2	90	2970	159.7	94.1	0.91	289.4	7.5	2	2.3
EY2-315S-2	110	2980	194.8	94.3	0.91	352.5	7.1	1.8	2.2
EY2-315M1-2	132	2980	233	94.6	0.91	423	7.1	1.8	2.2
EY2-315M2-2	160	2980	278.7	94.8	0.92	512.8	7.1	1.8	2.2
EY2-315L1-2	200	2980	347.7	95	0.92	640.9	7.1	1.8	2.2
EY2-315L2-2	250	2980	434.6	95	0.92	801.2	7.1	1.6	2.2
EY2-355L1-2	315	2980	547.6	95	0.92	1009.5	7.1	1.6	2.2
1500r/min 50Hz - Synchronous Speed 1500r/min 50Hz									
EY2-80M1-4	0.55	1370	1.6	69	0.75	3.83	6	2.2	2.4
EY2-80M2-4	0.75	1380	1.8	79.6	0.78	5.19	6	2.2	2.4
EY2-90S-4	1.1	1400	2.6	81.4	0.79	7.5	6	2.2	2.4
EY2-90L-4	1.5	1400	3.4	82.8	0.8	10.23	6	2.2	2.4
EY2-100L1-4	2.2	1420	4.9	84.3	0.81	14.8	7	2.2	2.3
EY2-100L2-4	3	1420	6.6	85.5	0.81	20.18	7	2.2	2.2
EY2-112M-4	4	1430	8.6	86.6	0.82	26.71	7	2.2	2.2
EY2-132S-4	5.5	1450	11.3	87.7	0.84	36.22	7	2.2	2.2
EY2-132M-4	7.5	1450	15.1	88.7	0.85	49.4	7	2.2	2.2
EY2-160M-4	11	1460	21.4	89.8	0.87	71.95	7.5	2.2	2.2
EY2-160L-4	15	1460	28.9	90.6	0.87	98.12	7.5	2.2	2.2
EY2-180M-4	18.5	1470	35.8	91.2	0.86	120.2	7.5	2.2	2.3
EY2-180L-4	22	1470	42.4	91.6	0.86	142.9	7.5	2.2	2.3
EY2-200L-4	30	1470	57.4	92.3	0.86	194.9	7.2	2.2	2.3
EY2-225S-4	37	1480	69.7	92.7	0.87	238.8	7.2	2.2	2.3
EY2-225M-4	45	1480	84.4	93.1	0.87	290.4	7.2	2.2	2.3
EY2-250M-4	55	1480	102.7	93.6	0.87	354.9	7.2	2.2	2.3
EY2-280S-4	75	1480	139.3	94	0.87	484	7.2	2.2	2.3
EY2-280M-4	90	1480	166.9	94.2	0.87	580.7	7.2	2.2	2.3
EY2-315S-4	110	1490	201	94.5	0.88	705	6.9	2.1	2.2
EY2-315M-4	132	1490	240.7	94.7	0.88	846	6.9	2.1	2.2
EY2-315L-4	160	1490	287.8	94.9	0.89	1025.5	6.9	2.1	2.2
EY2-315L2-4	200	1490	359	95.1	0.89	1281.9	6.9	2.1	2.2
EY2-355M-4	250	1490	443.8	95.1	0.9	1602.3	6.9	2.1	2.2
EY2-355L-4	315	1490	559.2	95.1	0.9	2019	6.9	2.1	2.2

EY2 SERIES IE2 EFFICIENCY MOTORS TECHNICAL DATA AT 380V 50Hz

TYPE	Rated Output (kW)	At Full Load				Rated Torque Tn (N.m)	Tst/In (Times)	Tst/Tn (Times)	Tmax/Tn (Times)
		Speed (r/min)	Current (A)	Eff (%)	Power Factor				
1000r/min 50Hz - Synchronous Speed 1000r/min 50Hz									
EY2-90S-6	0.75	910	2.1	75.9	0.72	7.87	5.50	2	2.1
EY2-90L-6	1.1	910	2.9	78.1	0.73	11.54	5.50	2	2.1
EY2-100L-6	1.5	920	3.8	79.8	0.75	15.57	5.50	2	2.1
EY2-112M-6	2.2	940	5.4	81.8	0.76	22.35	6.50	2	2.1
EY2-132S-6	3	960	7.2	83.3	0.76	29.84	6.50	2.1	2.1
EY2-132M1-6	4	960	9.5	84.6	0.76	39.79	6.50	2.1	2.1
EY2-132M2-6	5.5	960	12.6	86	0.77	54.71	6.50	2.1	2.1
EY2-160M-6	7.5	970	17	87.2	0.77	73.84	6.50	2	2.1
EY2-160L-6	11	970	24.2	88.7	0.78	108.3	6.50	2	2.1
EY2-180L-6	15	970	31.4	89.7	0.81	147.7	7.00	2	2.1
EY2-200L1-6	18.5	970	38.4	90.4	0.81	182.1	7.00	2.1	2.1
EY2-200L2-6	22	970	44.3	90.9	0.83	215.6	7.00	2.1	2.1
EY2-225M-6	30	980	59.2	91.7	0.84	292.3	7.00	2	2.1
EY2-250M-6	37	980	70.9	92.2	0.86	360.6	7	2.1	2.1
EY2-280S-6	45	980	85.8	92.7	0.86	438.5	7	2.1	2
EY2-280M-6	55	980	104.4	93.1	0.86	536	7	2.1	2
EY2-315S-6	75	990	141.4	93.7	0.86	723.5	7	2	2
EY2-315M-6	90	990	169.2	94	0.86	868.2	7	2	2
EY2-315L1-6	110	990	206.1	94.3	0.86	1061.1	6.7	2	2
EY2-315L2-6	132	990	243.7	94.6	0.87	1273.3	6.7	2	2
EY2-355M1-6	160	990	291.4	94.8	0.88	1543.4	6.7	1.9	2
EY2-355M2-6	200	990	363.5	95	0.88	1929.3	6.7	1.9	2
EY2-355L-6	250	990	454.4	95	0.88	2411.6	6.7	1.9	2


B14 OVERALL & INSTALLATION DIMENTION

Frame	B14					B14B					D	E	F	G	KK	AC	HD	L
	N	M	P	T	S	R	N	M	P	T	S	R						
56	Φ50	Φ65	Φ80	2.5	M5	0	Φ80	Φ100	Φ120	3.0	M6	Φ11	23	4	8.5	1-M16X1.5	Φ130	109/102
63	Φ60	Φ75	Φ90	2.5	M5	0	Φ95	Φ115	Φ140	3.0	M8	Φ11	30	5	11	1-M20X1.5	Φ145	117/109
71	Φ70	Φ85	Φ105	2.5	M6	0	Φ110	Φ130	Φ160	3.5	M8	Φ11	40	6	15.5	1-M20X1.5	Φ165	137
80	Φ80	Φ100	Φ120	3.0	M6	0	Φ110	Φ130	Φ160	3.5	M8	Φ11	24	5	20	1-M20X1.5	Φ185	145
90S	Φ95	Φ115	Φ140	3.0	M8	0	Φ110	Φ130	Φ160	3.5	M8	Φ11	24	5	20	1-M20X1.5	Φ185	145
90L1/L2	Φ95	Φ115	Φ140	3.0	M8	0	Φ110	Φ130	Φ160	3.5	M8	Φ11	24	5	20	1-M20X1.5	Φ185	145
100	Φ110	Φ130	Φ160	3.5	M8	0	Φ130	Φ165	Φ200	3.5	M10	Φ11	28	6	24	1-M20X1.5	Φ205	152
112	Φ110	Φ130	Φ160	3.5	M8	0	Φ130	Φ165	Φ200	3.5	M10	Φ11	28	6	24	2-M25X1.5	Φ230	180
132S	Φ130	Φ165	Φ200	3.5	M10	0	Φ180	Φ215	Φ250	4.0	M12	Φ11	38	10	33	2-M25X1.5	Φ270	193
132M/L	Φ130	Φ165	Φ200	3.5	M10	0	Φ180	Φ215	Φ250	4.0	M12	Φ11	38	10	33	2-M25X1.5	Φ270	193

B3 OVERALL & INSTALLATION DIMENTION

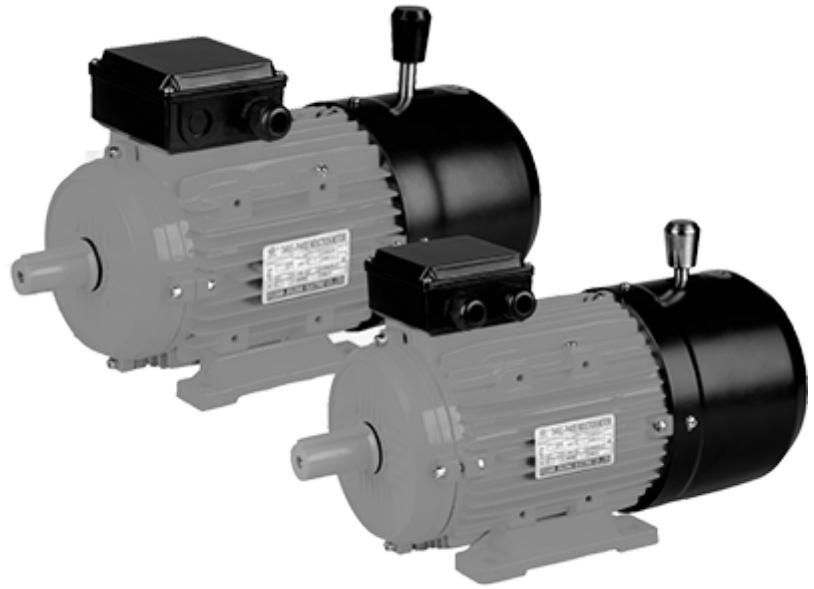
Frame	Poles	H	A	A/2	B	C	D	E	F	G	K	AA	AD	AC	L
56	2, 4, 6, 8	56	90	45	71	36	Φ9	20	3	7.2	5.8X5.8	110	156/151	Φ120	195
63	2, 4, 6, 8	63	100	50	80	40	Φ11	23	4	8.5	7X10	120	173/165	Φ130	230
71	2, 4, 6, 8	71	112	56	90	45	Φ14	30	5	11	7X10	132	188/180	Φ145	260
80	2, 4, 6, 8	80	125	62.5	100	50	Φ19	40	6	15.5	10X13	160	217	Φ165	295
90S	2, 4, 6, 8	90	140	70	100	56	Φ24	50	8	20	10X13	175	235	Φ185	315
90L1/L2	2, 4, 6, 8	90	140	70	125	56	Φ24	50	8	20	10X13	175	235	Φ185	335/365
100	2, 4, 6, 8	100	160	80	140	63	Φ28	60	8	24	12X16	196	252	Φ205	400
112	2, 4, 6, 8	112	190	95	140	70	Φ28	60	8	24	12X16	220	292	Φ230	400
132S	2, 4, 6, 8	132	216	108	140	89	Φ38	80	10	33	12X16	252	325	Φ270	480
132M/L	2, 4, 6, 8	132	216	108	178	89	Φ38	80	10	33	12X16	252	325	Φ270	510/535
160M/L	2, 4, 6, 8	160	254	127	21 ^{1/2} 24	108	Φ42	110	12	37	15X19	290	390	Φ320	640
180M	2, 4, 6, 8	180	279	140	241	121	Φ48	110	14	42.5	15	355	455	Φ360	670
180L	2, 4, 6, 8	180	279	140	279	121	Φ48	110	14	42.5	15	355	455	Φ360	710
200L	2, 4, 6, 8	200	318	159	305	133	Φ55	110	16	49	19	375	505	Φ400	775
225S	4, 8	225	356	178	286	149	Φ60	140	18	53	19	435	560	Φ470	815
225M	2	225	356	178	311	149	Φ55	110	16	49	19	435	560	Φ470	820
225M	4, 6, 8	225	356	178	311	149	Φ60	140	18	53	19	435	560	Φ470	845
250M	2	250	406	203	349	168	Φ60	140	18	53	24	490	615	Φ510	910
250M	4, 6, 8	250	406	203	349	168	Φ65	140	18	58	24	490	615	Φ510	910
280S	4, 6, 8	280	457	228.5	368	190	Φ65	140	18	58	24	550	680	Φ580	985
280M	2	280	457	228.5	368	190	Φ75	140	20	67.5	24	550	680	Φ580	985
280M	4, 6, 8	280	457	228.5	419	190	Φ65	140	18	58	24	550	680	Φ580	1035
315S	2	315	508	254	406	216	Φ65	140	18	58	28	635	845	Φ645	1185
315M	4, 6, 8	315	508	254	406	216	Φ80	170	22	71	28	635	845	Φ645	1215
315M	2	315	508	254	457	216	Φ65	140	18	58	28	635	845	Φ645	1295
315L	4, 6, 8	315	508	254	457	216	Φ80	170	22	71	28	635	845	Φ645	1325
355M	2	355	610	305	560	254	Φ75	140	20	67.5	28	730	1010	Φ710	1500
355M	4, 6, 8	355	610	305	560	254	Φ95	170	25	86	28	730	1010	Φ710	1530
355L	4, 6, 8	355	610	305	630	254	Φ95	170	25	86	28	730	1010	Φ710	1530

B5 OVERALL & INSTALLATION DIMENTION

Frame	Poles	M	N	P	T	S	D	E	F	G	AC	AD	L
56	2, 4, 6, 8	Φ98	Φ80	Φ120	3.0	Φ7	Φ9	20	3	7.2	Φ120	100 ^{100/95}	195
63	2, 4, 6, 8	Φ115	Φ95	Φ140	3.0	Φ10	Φ11	23	4	8.5	Φ130	110 ^{110/102}	230
71	2, 4, 6, 8	Φ130	Φ110	Φ160	3.5	Φ10	Φ14	30	5	11	Φ145	110 ^{110/108}	260
80	2, 4, 6, 8	Φ165	Φ130	Φ200	3.5	Φ12	Φ19	40	6	15.5	Φ165	137	295
90S	2, 4, 6, 8	Φ165	Φ130	Φ200	3.5	Φ12	Φ24	50	8	20	Φ185	145	315
90L1/L2	2, 4, 6, 8	Φ165	Φ130	Φ200	3.5	Φ12	Φ24	50	8	20	Φ185	145	335/365
100	2, 4, 6, 8	Φ215	Φ180	Φ250	4.0	Φ15	Φ28	60	8	24	Φ205	152	400
112	2, 4, 6, 8	Φ215	Φ180	Φ250	4.0	Φ15	Φ28	60	8	24	Φ230	180	400
132S	2, 4, 6, 8	Φ265	Φ230	Φ300	4.0	Φ15	Φ38	80	10	33	Φ270	193	480
132M/L	2, 4, 6, 8	Φ265	Φ230	Φ300	4.0	Φ15	Φ38	80	10	33	Φ270	193	510/535
160M/L	2, 4, 6, 8	Φ300	Φ250	Φ350	5.0	Φ19	Φ42	110	12	37	Φ320	230	640
180M	2, 4, 6, 8	Φ300	Φ250	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ360	180	670
180L	2, 4, 6, 8	Φ300	Φ250	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ360	180	710
200L	2, 4, 6, 8	Φ350	Φ300	Φ400	5.0	Φ19	Φ55	110	16	49	Φ400	280	775
225S	4, 8	Φ400	Φ350	Φ450	5.0	Φ19	Φ60	140	18	53	Φ470	305	815
225M	2	Φ400	Φ350	Φ450	5.0	Φ19	Φ55	110	16	49	Φ470	335	820
225M	4, 6, 8	Φ400	Φ350	Φ450	5.0	Φ19	Φ60	140	18	53	Φ470	335	845
250M	2	Φ500	Φ450	Φ550	5.0	Φ19	Φ60	140	18	53	Φ510	370	910
250M	4, 6, 8	Φ500	Φ450	Φ550	5.0	Φ19	Φ65	140	18	58	Φ510	370	985
280S	4, 6, 8	Φ500	Φ450	Φ550	5.0	Φ19	Φ75	140	20	67.5	Φ580	410	985
280M	2	Φ500	Φ450	Φ550	5.0	Φ19	Φ65	140	18	58	Φ580	410	1035
280M	4, 6, 8	Φ500	Φ450	Φ550	5.0	Φ19	Φ75	140	20	67.5	Φ580	410	1500

B5 OVERALL & INSTALLATION DIMENTION

Frame	Poles	H	M	N	P	T	S	A	B	C	D	E	F	G
56	2, 4, 6, 8	56	Φ80	Φ98	Φ120	3.0	Φ7	90	71	36	Φ9	20	3	7.2
63	2, 4, 6, 8	63	Φ95	Φ115	Φ140	3.0	Φ10	100	80	40	Φ11	23	4	8.5
71	2, 4, 6, 8	71	Φ110	Φ130	Φ160	3.5	Φ10	112	90	45	Φ14	30	5	11
80	2, 4, 6, 8	80	Φ130	Φ165	Φ200	3.5	Φ12	125	100	50	Φ19	40	6	15.5
90S	2, 4, 6, 8	90	Φ130	Φ165	Φ200	3.5	Φ12	140	100	56	Φ24	50	8	20
90L1/L2	2, 4, 6, 8	90	Φ130	Φ165	Φ200	3.5	Φ12	140	125	56	Φ24	50	8	20
100	2, 4, 6, 8	100	Φ180	Φ215	Φ250	4.0	Φ15	180	120	60	Φ28	60	8	24
112	2, 4, 6, 8	112	Φ180	Φ215	Φ250	4.0	Φ15	180	140	70	Φ28	60	8	24
132S	2, 4, 6, 8	132	Φ230	Φ265	Φ300	4.0	Φ15	180	140	80	Φ28	80	10	33
132M/L	2, 4, 6, 8	132	Φ230	Φ265	Φ300	4.0	Φ15	180	140	80	Φ28	80	10	33
160M/L	2, 4, 6, 8	160	Φ300	Φ250	Φ350	5.0	Φ19	Φ42	110	12	37	Φ320	230	640
180L	2, 4, 6, 8	180	Φ300	Φ250	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ360	180	670
200L	2, 4, 6, 8	200	Φ300	Φ250	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ400	280	775
225S	4, 8	215	Φ280	Φ315	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ470	410	815
225M	2	215	Φ280	Φ315	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ470	410	845
225M	4, 6, 8	215	Φ280	Φ315	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ470	410	845
250M	2	250	Φ350	Φ315	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ400	440	910
250M	4, 6, 8	250	Φ350	Φ315	Φ350	5.0	Φ19	Φ48	110	14	42.5	Φ400	440	910
280S	4, 6, 8	280	Φ350	Φ315	Φ350	5.0	Φ19	Φ75	140	20	67.5	Φ580	410	985
280M	2	280	Φ350	Φ315	Φ350	5.0	Φ19	Φ75	140	20	67.5	Φ580	410	1035
280M	4, 6, 8	280	Φ350	Φ315	Φ350	5.0	Φ19	Φ75	140	20	67.5	Φ580	410	1500
355L	4, 6, 8	355	Φ740	Φ680	Φ800	6.0	Φ24	610	600	254	Φ75	140	20	68
355L	4, 6, 8	355	Φ740	Φ680	Φ800	6.0	Φ24	610	600	254	Φ75	140	20	68
355L	4, 6, 8	355	Φ740	Φ680	Φ800	6.0	Φ24	610	600	254				



ALUMINUM HOUSING

MSEJ SERIES

ASYNCHRONOUS THREE-PHASE BRAKE MOTORS WITH SQUIRREL CAGE ROTOR - DIRECT CURRENT BRAKE

MSEJ series-enclosed construction externally ventilated-sizes 63-160.

The brake-motors of the MSEJ series result from coupling an asynchronous three-phase motor and an electromagnetic D.C. Brake unit. Due to their reliability and operating safety, as well as their quick braking time(connection & disconnection time=5~80 milliseconds) they are suitable for a great variety of applications, as:

- Braking of loads or torques on the driving shaft.
- Braking of rotating masses to reduce and lost-time.
- Braking operations to increase the set-up precision.
- Braking of machine parts, according to safety rules.

MSEJ SERIES TECHNICAL DATA AT 380V 50Hz
2 Poles - 3000Rpm 50Hz

TYPE	Rated Output (kW)	Speed (r/min)	Eff (%)	Power Factor	- Rated Current (A)			Tst/Tn (Times)	Tmax/Tn (Times)	Tmin/Tn (Times)	Ist/In	Noise dB (A)
					230V	400V	690V					
MSEJ631-2	0.18	2710	63	0.75	0.95	0.55	0.32	2.2	2.4	1.6	6	61
MSEJ632-2	0.25	2710	65	0.78	1.23	0.71	0.41	2.2	2.4	1.6	6	61
MSEJ633-2	0.37	2710	65	0.78	1.82	1.05	0.61	2.2	2.4	1.6	6	62
MSEJ711-2	0.37	2730	70	0.79	1.67	0.97	0.56	2.2	2.4	1.6	6	64
MSEJ712-2	0.55	2730	71	0.79	2.45	1.42	0.82	2.2	2.4	1.6	6	64
MSEJ713-2	0.75	2730	72	0.82	3.18	1.83	1.06	2.2	2.4	1.5	6	65
MSEJ801-2	0.75	2770	73	0.84	3.06	1.77	1.02	2.2	2.4	1.5	6	67
MSEJ802-2	1.1	2770	76	0.83	4.35	2.51	1.45	2.2	2.4	1.5	6	67
MSEJ803-2	1.5	2800	78	0.83	5.87	3.32	1.92	2.2	2.4	1.5	6	70
MSEJ90S-2	1.5	2840	78	0.84	5.76	3.28	1.90	2.2	2.4	1.5	6	72
MSEJ90L1-2	2.2	2840	81	0.85	8.0	4.61	2.66	2.2	2.4	1.4	6	72
MSEJ90L2-2	3	2840	82	0.86	10.56	6.10	3.52	2.2	2.4	1.4	6	74
MSEJ100L1-2	3	2840	82	0.87	10.44	6.03	3.48	2.2	2.3	1.4	7	76
MSEJ100L2-2	4	2850	84	0.87	13.65	7.88	4.55	2.2	2.3	1.4	7.5	77
MSEJ112M-2	4	2880	84	0.87	13.65	7.88	4.55	2.2	2.3	1.4	7.5	77
MSEJ112L-2	5.5	2880	85	0.88	18.23	10.53	6.08	2.2	2.3	1.2	7.5	78
MSEJ132S1-2	5.5	2900	85	0.88	18.23	10.53	6.08	2	2.2	1.2	7.5	80
MSEJ132S2-2	7.5	2920	87	0.88	24.49	14.14	8.16	2	2.2	1.2	7.5	80
MSEJ132M1-2	9.2	2930	88	0.89	29.87	17.25	9.96	2	2.2	1.2	7.5	81
MSEJ132M2-2	11	2930	88	0.9	34.57	19.96	11.52	2	2.2	1.2	7.5	83
MSEJ160M1-2	11	2940	88	0.9	34.57	19.96	11.52	2	2.2	1.2	7.5	86
MSEJ160M2-2	15	2940	88	0.91	46.09	26.61	15.36	2	2.2	1.2	7.5	86
MSEJ160L-2	18.5	2940	90	0.91	56.47	32.6	18.82	2	2.2	1.1	7.5	86

MSEJ SERIES TECHNICAL DATA AT 380V 50Hz
4 Poles - 1500Rpm 50Hz

TYPE	Rated Output (kW)	Speed (r/min)	Eff (%)	Power Factor	- Rated Current (A)			Tst/Tn (Times)	Tmax/Tn (Times)	Tmin/Tn (Times)	Ist/In	Noise dB (A)
					230V	400V	690V					
MSEJ631-4	0.12	1350	57	0.64	0.82	0.47	0.27	2.2	2.4	1.7	6	52
MSEJ632-4	0.18	1350	59	0.65	1.17	0.68	0.39	2.2	2.4	1.7	6	52
MSEJ633-4	0.25	1350	60	0.66	1.58	0.91	0.53	2.2	2.4	1.7	6	54
MSEJ711-4	0.25	1350	60	0.72	1.45	0.84	0.48	2.2	2.4	1.7	6	55
MSEJ712-4	0.37	1370	65	0.74	1.92	1.11	0.64	2.2	2.4	1.7	6	55
MSEJ713-4	0.55	1380	66	0.75	2.78	1.60	0.93	2.2	2.4	1.7	6	57
MSEJ801-4	0.55	1370	67	0.75	2.74	1.58	0.91	2.2	2.4	1.7	6	58
MSEJ802-4	0.75	1380	72	0.78	3.34	1.93	1.11	2.2	2.4	1.6	6	58
MSEJ803-4	1.1	1390	76	0.78	4.63	2.67	1.54	2.2	2.4	1.6	6	60
MSEJ90S-4	1.1	1400	76	0.79	4.57	2.64	1.52	2.2	2.4	1.6	6	61
MSEJ90L-4	1.5	1400	78	0.8	5.97	3.54	1.99	2.2	2.4	1.6	6	61
MSEJ100L-4	2.2	1400	81	0.8	8.45	4.90	2.83	2.2	2.4	1.5	7	63
MSEJ100L-4	2.2	1420	81	0.81	8.38	4.84	2.79	2.2	2.3	1.5	7	64
MSEJ100L2-4	3	1420	82	0.81	11.21	6.47	3.74	2.2	2.3	1.5	7	64
MSEJ100L3-4	4	1430	84	0.82	14.18	8.36	4.83	2.2	2.3	1.5	7	65
MSEJ112M-4	4	1430	84	0.83	14.31	8.26	4.77	2.2	2.2	1.5	7	65
MSEJ112L-4	5.5	1440	85	0.83	19.33	11.16	6.44	2.2	2.2	1.4	7	68
MSEJ132S-4	5.5	1450	85	0.84	19.1	11.03	6.37	2.2	2.2	1.4	7	71
MSEJ132M-4	7.5	1450	87	0.85	25.35	14.64	8.45	2.2	2.2	1.4	7	71
MSEJ132L-4	9.2	1460	87	0.85	30.92	17.85	10.31	2.2	2.2	1.4	7	74
MSEJ132L2-4	10	1460	88	0.85	33.42	19.3	11.14	2.2	2.2	1.4	7.5	74
MSEJ132L3-4	11	1460	88	0.86	36.17	20.88	12.06	2.2	2.2	1.4	7.5	74
MSEJ160M-4	11	1460	88	0.87	35.76	20.64	11.92	2.2	2.2	1.4	7.5	75
MSEJ160L-4	15	1460	88	0.87	48.76	28.15	16.25	2.2	2.2	1.4	7.5	75

On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.

MSEJ SERIES TECHNICAL DATA AT 380V 50Hz

6 Poles - 1000Rpm 50Hz

TYPE	Rated Output (kW)	Speed (r/min)	Eff (%)	Power Factor	- Rated Current (A)			Tst/Tn (Times)	Tmax/Tn (Times)	Tmin/Tn (Times)	Ist/In	Noise dB (A)
					230V	400V	690V					
MSEJ631-6	0.09	840	42	0.61	0.88	0.51	0.29	2	2	1.5	3.5	50
MSEJ632-6	0.12	850	45	0.62	1.08	0.62	0.36	2	2	1.5	3.5	50
MSEJ711-6	0.18	880	56	0.66	1.22	0.70	0.41	1.6	1.7	1.5	4	52
MSEJ712-6	0.25	900	59	0.7	1.51	0.87	0.50	2.1	2.2	1.5	4	52
MSEJ713-6	0.37	890	61	0.69	2.2	1.27	0.73	2	2.1	1.5	4	54
MSEJ801-6	0.37	900	62	0.7	2.13	1.23	0.71	1.9	1.9	1.5	4	56
MSEJ802-6	0.55	900	67	0.72	2.85	1.65	0.95	2	2.3	1.5	4	56
MSEJ803-6	0.75	900	68	0.72	3.83	2.21	1.28	2	2.3	1.5	4	58
MSEJ90S-6	0.75	920	69	0.72	3.77	2.18	1.26	2.2	2.2	1.5	5.5	59
MSEJ90L-6	1.1	925	72	0.73	5.23	3.02	1.74	2.2	2.2	1.3	5.5	59
MSEJ100L-6	1.5	945	74	0.76	6.67	3.85	2.22	2.2	2.2	1.3	6	61
MSEJ112M-6	2.2	955	78	0.76	9.28	5.36	3.09	2.2	2.2	1.3	6	64
MSEJ132S-6	3	960	79	0.76	12.49	7.21	4.16	2	2	1.3	6.5	64
MSEJ132M1-6	4	960	80	0.76	16.35	9.44	5.45	2	2	1.3	6.5	68
MSEJ132M2-6	5.5	960	83	0.77	21.51	12.42	7.17	2	2	1.3	6.5	68
MSEJ132L-6	7.5	960	85	0.77	28.65	16.54	9.55	2	2	1.3	6.5	68
MSEJ160M-6	7.5	960	86	0.8	27.25	45.73	9.08	2	2	1.3	6.5	68
MSEJ160L-6	11	960	87	0.79	39.78	22.97	13.26	2	2	1.2	6.5	73

TYPE	Brake Type k	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² kgm ²	No.of Starts/Hr Under no load	Delayed Cut-in Time Msec.	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSEJ 63	K1	6	15	0.00005	3000	45	20	10	50
MSEJ 71	K2	6	20	0.00014	3000	50	30	15	52
MSEJ 80	K3	12	25	0.00021	1300	55	30	15	56
MSEJ 90S	K4	20	30	0.00039	1100	65	40	15	59
MSEJ 90S	K4D	23	30	0.00078	1100	65	40	15	59
MSEJ 90L	K4	20	30	0.00039	1100	65	40	15	59
MSEJ 90L	K4D	23	30	0.00078	1100	65	40	15	59
MSEJ 100L	K5	40	45	0.00104	900	75	45	20	61
MSEJ 100L	K6	46	50	0.00135	900	180	85	25	61
MSEJ 112MT	K5	40	45	0.00104	880	75	45	20	64
MSEJ 112M	K6	60	50	0.00135	880	180	85	25	64
MSEJ 132S	K7	90	55	0.00219	480	200	95	50	64
MSEJ 132S	K7D	125	55	0.00438	480	200	95	50	64
MSEJ 132M	K7	90	55	0.00219	450	200	95	50	68
MSEJ 132M	K7D	125	55	0.00438	480	200	95	50	68
MSEJ 160MT	K7D	180	55	0.00438	350	200	95	50	68
MSEJ 160L	K8	200	60	0.00408	350	210	100	60	73
MSEJ 160L	K8D	400	60	0.00816	350	210	100	60	73

On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.

ELECTROMAGNETIC DIRECT CURRENT BRAKE SERIES EJ

OPERATING PRINCIPLE

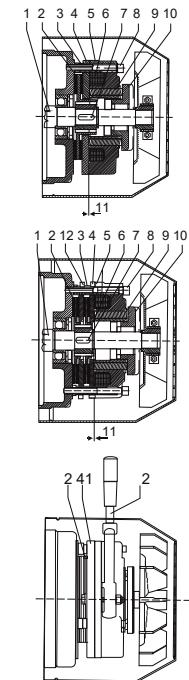
The direct current brake is fed by means of an electronic circuit with diode bridge(rectifier) situated inside the terminal-box. When feeding the electromagnet(5), the movable anchor(4) is attracted towards the same, thus loading the braking torque springs(9) and allowing the disk(2), equipped with friction packing and fitted on the groove hub(6) to turn solitary the motor shaft(1) by means of a key (7). By interrupting the feeding, the movable anchor(4), pushed by the braking torque springs(9), exerts a pressure upon the friction surface of the disk(2), thus causing its stopping.

ADJUSTMENT OF THE AIR GAP

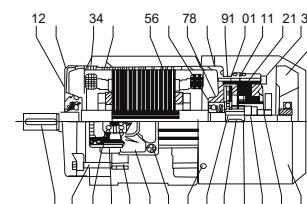
The air gap (11) is the distance between the electromagnet (5) and the movable anchor (9). The air gap has to be regularly checked, since due to the wear of the friction packing (2) it tends to increase. Act no the brake adjusters (3) after having unloosen the screws (8) to bring the air gap to the required value. Act on the ring nut (10) which acts on the braking torque springs (9) to adjust the braking torque. Pls. Contact our technical department for information on the air gap adjustment values.

HANDRELEASE WITH LEVER

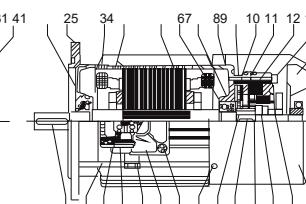
Upon request a hand release with lever can be supplied. In case of a current cutoff, acting on the lever (12), the release, connected to the movable anchor (4) overcomes the springs pressure, thus detaching the movable anchor from the disc friction packing (2) allowing the shaft to turn.



MSEJ Brake Motors B3 63 ~ 112



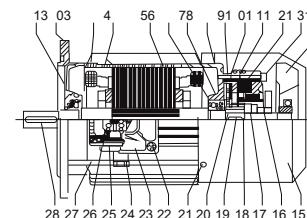
MSEJ Brake Motors B3 132 ~ 160



SPARE PARTS:

1. Front bearing
2. Front shield
3. Winding
4. Frame with stator package
5. Shaft with rotor
6. Rear bearing
7. Spring
8. Rear shield
9. Adjusting bush
10. Brake disc
11. Moving anchor
12. Electromagnet coil with diode
13. Fixing screws for brake
14. Cooling fan
15. Fan hood
16. Ring nut
17. Spring
18. See gearing
19. Key brake side
20. Toothed pinion
21. Fixing screw for fan hood
22. Fixing crew for terminal-box
23. Terminal-box
24. Cable gland
25. Seal
26. Terminal-block
27. Tie-bolt
28. Coupling side key
29. Fixing screw for shield
30. Flange shield

MSEJ Brake Motors B5 63 ~ 112



MSEJ Brake Motors B5 132 ~ 160

