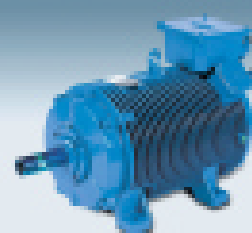
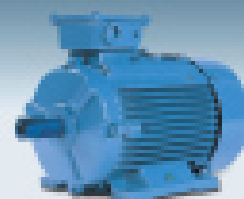
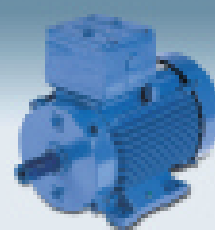
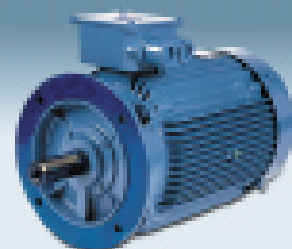
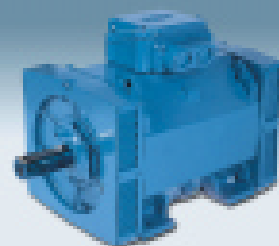
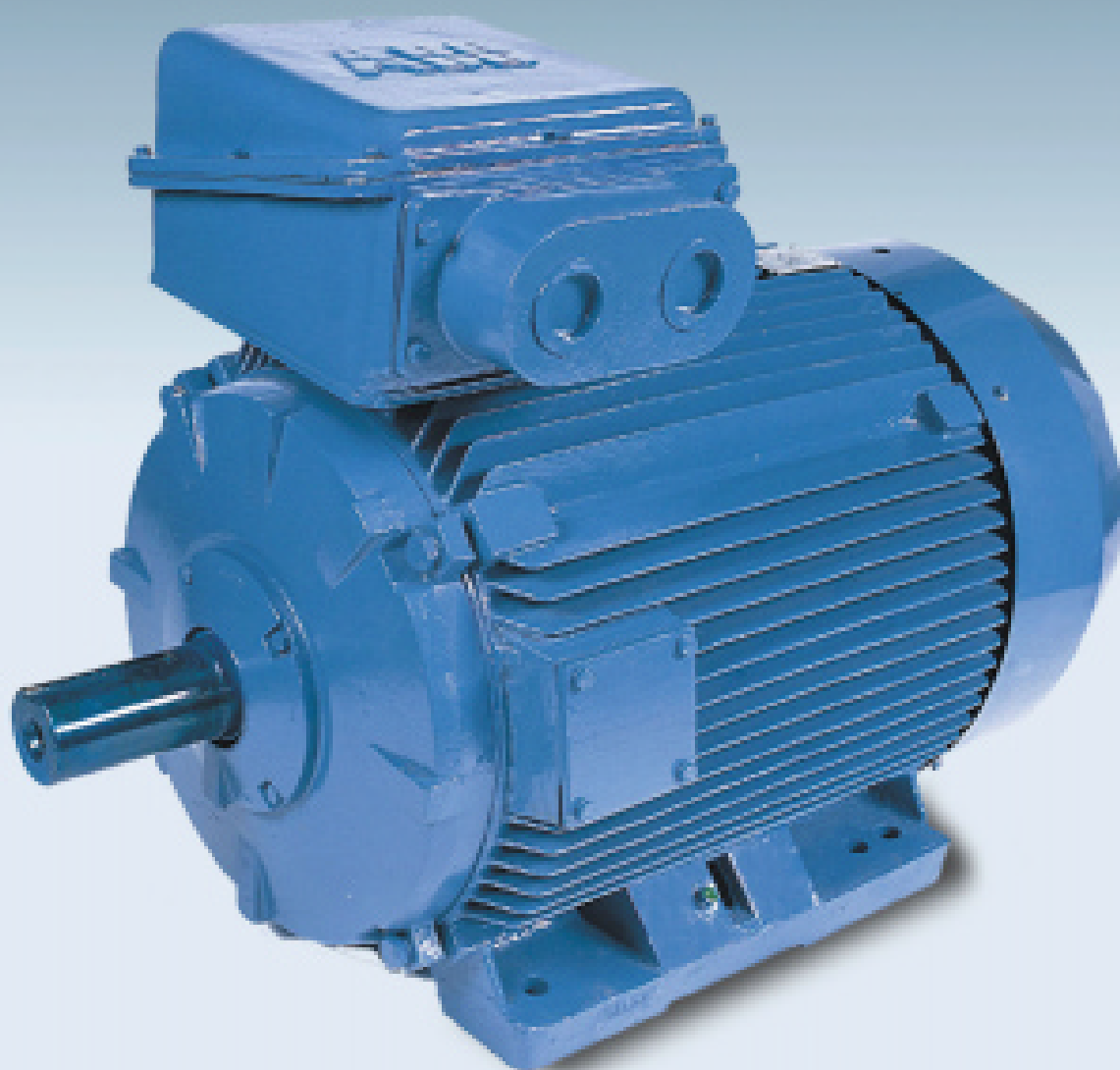


Electrical motors from a world leader



ABB

Superior quality motors from ABB

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact.

ABB automation technologies blend a robust product and service portfolio with end-user expertise and global presence to deliver solutions for control, motion, protection and plant integration across the full range of process and utility industries.

ABB supplies a full range of industrial electric motors – AC & DC, LV & HV, meeting the needs of most applications with varied power ratings.

Within the Group, ABB Motors is the world's leading manufacturer of low voltage induction motors, with over 100 years' experience and a presence in more than 140 countries. ABB Motors'

broad understanding of customer application enables it to work closely to solve individual problems or to supply custom-designed motors for any project - no matter how demanding.

ABB Motors enjoys a strong international position and expanding field of activity. Manufacturing facilities are located in China, Finland, India, Italy, Spain and Sweden. The units work towards achieving higher technical flexibility, short lead times and still higher service levels.

ABB Motors stands for value-added performance and commitment. Customers, the world over, rely on ABB Motors as the most reliable supplier of electric motors. It also stands apart for its unrivalled customer service and back-up. But above all, ABB Motors excels, for it believes in serving the customers in the best possible way.

ABB's wide spread marketing network



Features

Heavy duty design

The electrical and mechanical design of ABB motors offers high performance values in all mounting arrangements, protection class and applications.

Insulation scheme

ABB low voltage motors employ a unique polyamide based class 'F' insulation scheme rated for 155°C with temperature rise limited to class 'B'. The advanced insulation of our motors gives high electrical and mechanical stability.

Winding

Motors are wound using high quality round enamelled wires conforming to IS:13730. To ensure long life, the stators are impregnated with a solventless resin resulting in good thermal conductivity and high mechanical strength.

Ventilation

Ventilation circuit has been optimally designed based on aerodynamic and acoustic considerations.

Frequency converter drive

ABB motors are suitable for frequency converter drives with minimal changes. Special attention is given to mechanical features of the motors for reliable operation at an extreme speed range in variable speed applications.

Low noise levels

ABB motors are the result of the special efforts made to minimise electromagnetic, airborne and structural noise.

Enclosure

ABB motor housings are provided with deep longitudinal fins designed to give maximum cooling surface area. Integral feet ensure that the frames are rigid and vibration resistant.

Installation flexibility

Dual mounting holes are provided for installation flexibility.

Polyurethane paint

ABB motors are painted with P.U. paint, which provides an excellent finish to the motor and protection against corrosion due to its anti-corrosive properties.

Voltage range for extra versatility

ABB motors are matched to the standard voltage applicable in India i.e. 415 V. However, motors for 200 to 550 V can also be provided on request.

Easy connection of terminal box

Flexible orientation of terminal box with liberal sizing is in-built in the design, which enables quick and easy connections.

Product range

Type: Three phase squirrel cage induction motors

Output: 0.18 – 500 kW; 0.25 – 675 hp, according to IS:325

Frame size: 71 to 400

Voltage: 415 V; 220 – 550 V

Frequency: 50 Hz; 25 – 60 Hz

Duty: S1 – S8 according to IS:325

Ambient temp: -20°C to 65°C

Insulation: Class F/ H

Main dimensions:

Foot mounted according to IS:1231

Flange mounted according to IS:2223

Enclosure:

Totally Enclosed Fan Cooled (TEFC)
Totally Enclosed Surface Cooled (TESC)
Screen Protected Drip Proof (SPDP)
Totally Enclosed Forced Cooled (TEFC)

Cooling:

IC 01 41 (TEFC)
IC 00 41 (TESC)
IC 01 (SPDP)
IC 416 (TEFC)

Degree of protection:

IP 55/ IP 56 (TEFC/ TESC)
IP 23 (SPDP)

TEFC, S1 Duty
415V+/-10%, 50Hz+/-5%
Combined variation (absolute sum 10%)

Insulation class F
Temperature rise class B (75°C)

HX Series

2 Pole Ambient 45°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
0.37	0.5	HX71A2	2790	1.0	4.2	0.60	63.0	59.0	46.0	0.80	0.73	2.0	2.4	1.3	5	12	10	0.001
0.55	0.75	HX71C2	2790	1.4	4.3	68.0	64.0	57.0	0.81	0.74	0.63	1.8	2.3	1.9	5	12	14	0.002
0.75	1.0	HX80A2	2780	1.8	4.8	73.0	72.0	68.0	0.82	0.76	0.66	2.0	2.3	2.6	7	16	10	0.002
1.1	1.5	HX80C2	2780	2.5	4.8	74.0	73.0	70.0	0.81	0.74	0.63	2.1	2.3	3.8	7	16	14	0.003
1.5	2.0	HX90SLA2	2840	3.2	5.7	77.5	76.0	74.0	0.82	0.76	0.66	2.1	2.7	5.0	6	14	22	0.007
2.2	3.0	HX90SLC2	2840	4.5	5.8	79.5	79.0	77.0	0.86	0.76	0.66	2.0	2.8	7.4	5	10	24	0.008
3.7	5.0	HX100LB2	2830	7.2	6.0	80.0	79.5	77.5	0.87	0.84	0.74	2.2	2.7	12.5	5	10	35	0.026
5.5	7.5	HX132SMA2	2875	10.5	6.0	84.2	83.5	81.0	0.85	0.81	0.72	2.3	3.0	18.3	9	20	55	0.044
*7.5	10	HX132SMB2	2850	14.0	6.0	85.0	84.5	84.0	0.88	0.86	0.80	2.1	3.0	25.1	9	20	60	0.052
7.5	10	HX132SMC2I	2870	13.4	6.4	86.0	86.0	85.0	0.91	0.88	0.80	2.4	3.0	25.0	9	20	70	0.072
9.3	12.5	HX132SMC2	2860	16.5	6.0	86.0	85.5	85.0	0.89	0.87	0.81	2.5	3.5	31.1	9	20	70	0.072
*11	15	HX160MLA2	2895	20.0	6.0	87.5	86.5	84.0	0.85	0.81	0.72	2.2	2.8	36.3	12	28	110	0.113
11	15	HX160MLB2i	2900	20.0	6.2	88.5	88.0	87.0	0.86	0.81	0.72	2.2	2.8	36.2	12	28	120	0.128
*15	20	HX160MLB2	2895	27.0	6.0	88.5	87.5	86.5	0.87	0.84	0.76	2.4	2.8	49.5	12	28	120	0.128
15	20	HX160MLD2i	2900	26.0	6.4	90.0	90.0	88.0	0.87	0.84	0.76	2.2	3.0	49.4	12	28	130	0.152
*18.5	25	HX160MLD2	2900	32.5	6.0	91.0	90.5	88.5	0.90	0.84	0.76	2.5	2.9	60.9	12	28	130	0.152

4 Pole Ambient 45°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
0.25	0.33	HX71A4	1385	0.8	3.5	63.0	61.0	55.0	0.80	0.64	0.51	1.9	2.2	1.7	7	16	13	0.002
0.37	0.50	HX71B4	1370	1.1	3.5	63.0	61.0	55.0	0.70	0.58	0.46	2.0	2.5	2.6	7	16	13	0.003
0.55	0.75	HX80B4	1400	3.5	1.5	65.0	64.0	58.0	0.80	0.67	0.51	1.8	2.3	3.8	6	14	13	0.008
0.75	1.0	HX80D4	1380	4.5	2.0	68.0	67.0	62.0	0.80	0.69	0.55	1.8	2.3	5.8	4	9	15	0.007
1.1	1.5	HX90SLB4	1420	5.0	2.6	74.0	73.5	71.0	0.80	0.72	0.57	1.9	2.6	7.4	5	10	23	0.012
1.5	2	HX90SLD4	1415	5.0	3.4	76.0	75.5	72.5	0.80	0.75	0.62	1.9	2.6	10.1	5	10	25	0.015
2.2	3	HX100LA4	1415	5.0	4.8	78.0	77.5	75.0	0.80	0.73	0.60	2.1	2.7	14.9	5	12	35	0.020
3.7	5	HX112M4AK	1425	6.0	7.6	83.0	83.0	82.0	0.80	0.76	0.65	2.2	2.8	24.8	5	12	45	0.044
5.5	7.5	HX132SMB4	1440	6.0	11.2	84.5	84.5	82.0	0.80	0.71	0.58	2.2	3.0	36.5	7	16	60	0.060
7.5	10	HX132SMC4	1440	6.0	14.8	86.0	86.0	84.5	0.80	0.74	0.63	2.1	3.0	49.7	7	16	70	0.088
9.3	12.5	HX160MLA4	1450	6.0	19.0	88.0	88.0	87.0	0.80	0.73	0.60	2.1	2.7	61.3	7	16	105	0.167
11	15	HX160MLB4	1455	6.0	22.0	89.0	89.0	88.0	0.80	0.74	0.63	2.2	2.8	72.2	8	18	125	0.208
*15	20	HX160MLD4	1455	6.0	29.5	88.5	87.5	86.5	0.80	0.76	0.66	2.1	2.8	99.1	12	28	145	0.252

6 Pole Ambient 45° C

HX Series

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
0.25	0.33	HX80B6K	895	0.8	3.5	63.0	59.0	53.0	0.70	0.59	0.47	1.9	2.2	2.7	10	24	13	0.006
0.37	0.50	HX80B6	895	1.2	3.5	63.5	61.0	55.0	0.70	0.59	0.47	1.9	2.2	4.0	10	24	13	0.006
0.55	0.75	HX80D6	900	1.6	3.5	66.0	64.0	60.0	0.73	0.65	0.50	1.9	2.2	5.8	10	24	15	0.008
0.75	1	HX90SLA6	910	2.1	3.5	68.0	66.5	63.0	0.70	0.66	0.52	1.7	2.0	7.9	10	24	22	0.011
1.1	1.5	HX90SLD6	915	2.9	3.5	72.0	70.5	66.0	0.70	0.66	0.52	1.8	2.1	11.5	10	24	25	0.015
1.5	2	HX100LB6	935	4.0	4.5	75.5	74.0	71.0	0.70	0.61	0.48	2.2	2.5	15.3	9	20	35	0.026
2.2	3	HX112MA6	940	5.7	5.0	78.5	78.0	75.0	0.70	0.56	0.47	2.0	2.5	22.4	8	19	45	0.044
3.7	5	HX132SMC6K	960	8.3	5.5	83.0	83.0	81.0	0.70	0.66	0.53	2.2	2.6	36.8	8	19	70	0.088
5.5	7.5	HX132SMD6	955	12.2	5.5	83.5	83.0	80.0	0.70	0.65	0.52	2.3	2.8	55.0	7	16	75	0.108
7.5	10	HX160MLB6	965	15.5	5.5	87.5	87.5	86.5	0.80	0.71	0.58	2.1	2.4	74.2	9	20	125	0.288
*9.3	12.5	HX160MLC6	960	19.4	5.5	86.5	85.5	83.5	0.80	0.71	0.58	2.0	2.4	92.5	8	18	145	0.326
9.3	12.5	HX160MLD6i	965	19.5	6.0	88.0	88.0	87.0	0.80	0.71	0.58	2.1	2.6	92.0	8	18	155	0.372
*11	15	HX160MLD6	960	23.0	5.5	88.0	87.0	86.0	0.80	0.72	0.59	2.0	2.4	109.0	9	20	155	0.372

8 Pole Ambient 45° C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
0.37	0.5	HX90SLA8	680	1.4	2.8	58.0	55.0	48.0	0.65	0.55	0.40	1.6	1.9	5.2	10	24	22	0.012
0.55	0.75	HX90SLD8	680	1.9	3.2	63.0	60.0	54.0	0.63	0.55	0.40	1.8	2.1	7.7	10	24	25	0.015
0.75	1	HX100LA8	695	3.1	3.0	63.0	62.0	57.0	0.56	0.50	0.37	1.8	2.1	10.3	10	24	35	0.020
1.1	1.5	HX100LB8	695	3.9	3.0	62.5	62.0	57.0	0.59	0.51	0.38	1.8	2.3	15.1	10	24	35	0.026
1.5	2	HX112MA8	700	4.8	3.5	69.0	67.0	62.0	0.60	0.51	0.41	1.8	2.3	20.5	9	20	45	0.044
2.2	3	HX132SMB8	710	6.3	4.1	77.0	75.0	72.0	0.65	0.55	0.42	1.9	2.4	29.6	8	19	60	0.060
3.7	5	HX160MLA8K	715	8.4	5.1	82.0	81.0	77.0	0.77	0.69	0.55	1.8	2.5	49.4	8	19	110	0.240
5.5	7.5	HX160MLB8	715	12.0	5.1	84.0	83.0	80.0	0.79	0.72	0.59	1.8	2.5	73.5	9	20	125	0.288
7.5	10	HX160MLD8	715	16.0	5.1	85.0	84.0	82.0	0.79	0.72	0.59	1.8	2.5	100.0	13	29	140	0.372

I_n=Nominal or rated current

I_s=Starting current

T_n=Nominal or rated torque in Nm

T_{max}=Maximum torque

T_s=Starting torque

T_{cold}=Cold withstand time

T_{hot}=Hot withstand time

*These motors have temperature rise of class F

Note: All performance figures are subjected to IS tolerances

TEFC, S1 Duty
415V+/-10%, 50Hz+/-5%
Combined variation (absolute sum 10%)

Insulation class F
Temperature rise class B (70°C)

HX+ Series

2 Pole Ambient 50°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque				Stall time (sec)		Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _n ,Nm	T _s /T _n	T _{min} /T _n	T _{max} /T _n	T _{hot}	T _{cold}	kg	kgm ²
22	30	HX+180MLB2	2925	37.5	6.0	92.1	92.1	91.1	0.89	0.87	0.81	72	2.3	2.2	3.0	20	46	170	0.25
30	40	HX+200MLB2	2940	51.0	6.0	92.6	92.6	91.0	0.88	0.86	0.81	97	2.3	2.2	3.0	20	46	240	0.72
37	50	HX+200MLC2	2940	62.0	6.0	93.1	93.1	92.1	0.89	0.87	0.81	120	2.4	2.3	2.7	20	46	260	0.78
45	60	HX+225SMC2	2955	75.0	6.0	93.5	93.5	92.5	0.89	0.87	0.81	145	2.6	2.5	3.0	20	46	330	1.28
55	75	HX+250MB2	2960	91.5	6.0	94.0	94.0	93.0	0.89	0.87	0.81	177	2.4	2.3	3.0	20	46	440	1.92
75	100	HX+280SMB2	2965	123.0	6.0	94.2	94.2	93.2	0.90	0.88	0.82	242	2.0	1.9	3.0	20	46	610	3.28
90	125	HX+280SMC2	2965	147.0	6.0	94.5	94.5	93.5	0.90	0.89	0.83	290	2.2	2.1	3.0	20	46	640	3.42

4 Pole Ambient 50°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque				Stall time (sec)		Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _n ,Nm	T _s /T _n	T _{min} /T _n	T _{max} /T _n	T _{hot}	T _{cold}	kg	kgm ²
18.5	25	HX+180MLB4	1455	34.5	6.0	90.6	90.6	89.6	0.82	0.76	0.66	121	2.4	2.3	2.7	15	34	175	0.48
22	30	HX+180MLC4	1460	40.5	6.0	91.5	91.5	90.5	0.83	0.78	0.70	144	2.6	2.5	2.7	15	34	185	0.54
30	40	HX+200MLC4	1470	54.5	6.0	92.6	92.6	91.6	0.83	0.78	0.70	195	2.6	2.5	2.7	15	34	245	1.20
37	50	HX+225SMB4	1470	67.0	6.0	92.8	92.8	91.8	0.83	0.78	0.70	240	2.2	2.1	2.7	20	46	310	1.40
45	60	HX+225SMC4	1470	81.0	6.0	93.3	93.3	92.3	0.83	0.78	0.70	292	2.2	2.1	2.7	20	46	340	1.52
55	75	HX+250MB4	1475	98.5	6.0	93.8	93.8	92.8	0.83	0.78	0.70	356	2.4	2.3	2.7	20	46	435	2.80
75	100	HX+280SMB4	1475	132.5	6.0	93.8	93.8	92.8	0.84	0.80	0.71	486	2.3	2.2	2.7	20	46	610	4.44
90	125	HX+280SMC4	1475	157.0	6.0	94.0	94.0	93.0	0.85	0.82	0.73	583	2.4	2.3	2.7	20	46	680	5.32

6 Pole Ambient 50°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque				Stall time (sec)		Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _n ,Nm	T _s /T _n	T _{min} /T _n	T _{max} /T _n	T _{hot}	T _{cold}	kg	kgm ²
15	20	HX+180MLC6	965	30.0	6.0	89.0	89.0	87.0	0.79	0.72	0.59	148	2.4	2.3	3.0	15	34	185	0.68
18.5	25	HX+200MLB6	985	36.0	6.0	90.5	90.5	88.5	0.79	0.72	0.59	179	2.3	2.2	3.0	15	34	230	1.60
22	30	HX+200MLC6	985	42.0	6.0	91.7	91.7	89.7	0.79	0.72	0.59	213	2.4	2.3	3.0	15	34	300	1.80
30	40	HX+225SMC6	985	55.5	6.0	92.1	92.1	90.1	0.82	0.76	0.66	291	2.4	2.3	2.8	20	46	320	2.98
37	50	HX+250MB6	985	66.0	6.0	92.8	92.8	90.8	0.84	0.80	0.71	359	2.4	2.3	2.8	20	46	420	4.80
45	60	HX+280SMB6	985	79.5	6.0	93.6	93.6	91.6	0.84	0.80	0.71	436	2.3	2.2	2.6	20	46	590	7.20
55	75	HX+280SMC6	985	97.0	6.0	93.8	93.8	91.8	0.84	0.80	0.71	533	2.1	2.0	2.7	20	46	600	8.10

8 Pole Ambient 50°C

HX+ Series

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque				Stall time (sec)		Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _n ,Nm	T _s /T _n	T _{min} /T _n	T _{max} /T _n	T _{hot}	T _{cold}	kg	kgm ²
9.3	12.5	HX+180MLA8	725	20.0	6.0	87.0	87.0	85.0	0.75	0.67	0.53	123	1.8	1.7	2.6	13	29	160	0.64
11	15	HX+180MLB8	725	23.5	6.0	87.0	87.0	85.0	0.75	0.67	0.53	145	2.0	1.9	2.5	13	29	170	0.72
15	20	HX+200MLC8	735	31.5	6.0	88.0	88.0	86.0	0.75	0.67	0.53	195	2.2	2.1	2.5	15	34	240	1.98
18.5	25	HX+225SMB8	735	38.5	6.0	90.0	90.0	89.0	0.74	0.66	0.52	240	2.2	2.1	2.3	18	40	320	3.32
22	30	HX+225SMC8	735	45.5	6.0	91.0	91.0	89.0	0.74	0.66	0.52	286	2.1	2.0	2.3	18	40	340	3.50
30	40	HX+250MB8	740	60.0	6.0	91.5	91.5	89.5	0.76	0.68	0.54	387	2.1	2.0	2.3	18	40	520	4.54
37	50	HX+280SMB8	740	73.5	6.0	92.0	92.0	90.0	0.76	0.73	0.61	478	2.1	2.0	2.3	18	40	590	7.64
45	60	HX+280SMC8	740	89.0	6.0	92.5	92.5	90.5	0.76	0.73	0.61	581	2.1	2.0	2.3	18	40	600	7.75

I_n=Nominal or rated current

I_s=Starting current

T_n=Nominal or rated torque in Nm

T_{max}=Maximum torque

T_s=Starting torque

T_{cold}=Cold withstand time

T_{hot}=Hot withstand time

*These motors have temperature rise of class F

Note: All performance figures are subjected to IS tolerances

TEFC, S1 Duty
415V+/-10%, 50Hz+/-5%
Combined variation (absolute sum 10%)
IP55, IC 0141

Insulation class F
Temperature rise class B (70°C)

M2BA Series

2 Pole Ambient 50°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
110	150	M2BA315SMA2	2980	185	7.0	95.0	95.0	94.0	0.87	0.83	0.75	1.1	3.0	353	45	91	875	5.0
132	180	M2BA315SMB2	2980	217	7.0	95.2	95.2	94.2	0.89	0.86	0.80	1.2	3.0	423	40	83	915	5.8
160	220	M2BA315MLA2	2980	256	7.0	95.6	95.6	94.6	0.91	0.88	0.82	1.4	2.7	513	50	98	1125	7.8
200	270	M2BA315MLC2	2979	318	7.0	96.0	96.0	95.0	0.91	0.88	0.82	1.5	3.0	641	50	102	1275	10.2
250	340	M2BA355SMA2	2978	398	7.0	96.0	96.0	95.0	0.91	0.88	0.82	1.2	3.0	802	60	115	1645	17.0
315	425	M2BA355MLA2	2978	495	7.0	96.2	96.2	95.2	0.92	0.89	0.83	1.3	3.0	1010	70	138	1895	23.0

4 Pole Ambient 50°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
110	150	M2BA315SMA4	1485	185	7.0	95.2	94.2	94.2	0.87	0.83	0.75	2.0	2.7	707	34	70	905	9.5
132	180	M2BA315SMB4	1485	221	7.0	95.5	95.5	94.5	0.87	0.83	0.75	2.0	2.7	849	31	63	960	10.6
160	220	M2BA315MLA4	1485	267	7.0	95.8	95.8	94.8	0.87	0.83	0.75	2.0	2.7	1029	34	70	1110	13.5
200	270	M2BA315MLC4	1485	329	6.5	96.0	96.0	95.0	0.88	0.85	0.79	2.0	2.7	1286	36	75	1260	17.0
250	340	M2BA355SMA4	1486	416	6.5	96.1	96.1	95.1	0.87	0.83	0.75	1.5	2.7	1607	60	122	1620	26.5
315	425	M2BA355MLA4	1486	523	7.0	96.3	96.3	95.3	0.87	0.82	0.73	1.5	2.7	2024	58	120	1870	33.0

6 Pole Ambient 50°C

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kw	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
75	100	M2BA315SMA6	986	132	6.0	93.8	93.8	91.8	0.84	0.80	0.71	1.6	2.5	726	27	55	860	14.2
90	125	M2BA315SMB6	988	158	7.0	94.3	94.3	92.3	0.84	0.79	0.70	1.7	2.5	870	21	43	930	16.7
110	150	M2BA315SMC6	988	193	6.0	94.5	94.5	92.5	0.84	0.79	0.70	1.9	2.5	1063	26	54	1005	20.0
132	180	M2BA315MLC6	988	228	6.5	94.8	94.8	92.8	0.85	0.80	0.71	2.0	2.5	1276	24	50	1240	28.2
160	220	M2BA355SMA6	989	275	6.5	95.2	95.2	93.2	0.85	0.80	0.71	1.8	2.6	1545	58	120	1595	42.0
200	270	M2BA355SMB6	990	343	6.5	95.5	95.5	93.5	0.85	0.80	0.71	1.9	2.7	1929	60	115	1800	50.5
250	340	M2BA355MLA6	988	428	6.5	95.6	95.6	93.6	0.85	0.80	0.71	1.9	2.7	2416	52	107	1940	55.0

8 Pole Ambient 50°C

M2BA Series

Output		Frame Size	Rated	Current		Efficiency			Power factor			Torque		T _n	T _{hot}	T _{cold}	Weight	GD ²
kW	hp		spd.(rpm)	I _n (A)	I _s /I _n	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	T _s /T _n	T _{max} /T _n	N _m	(S)	(S)	kg	kgm ²
55	75	M2BA315SMA8	740	101	6.0	93.5	93.5	91.5	0.81	0.73	0.61	1.7	2.5	710	29	59	830	13.0
75	100	M2BA315SMB8	740	135	6.0	94.0	94.0	92.0	0.82	0.75	0.65	1.8	2.5	968	30	61	975	18.8
90	125	M2BA315SMC8	740	162	6.0	94.5	94.5	92.5	0.82	0.75	0.65	1.9	2.5	1161	30	61	1055	22.0
110	150	M2BA315MLB8	740	197	6.0	94.6	94.6	92.6	0.82	0.75	0.65	1.8	2.5	1420	24	49	1125	23.6
132	180	M2BA355SMA8	740	239	6.0	94.7	94.7	92.7	0.81	0.73	0.61	1.5	2.3	1704	32	66	1590	42.0
160	220	M2BA355MLA8	740	289	6.0	95.0	95.0	93.0	0.81	0.73	0.62	1.8	2.5	2065	40	82	1945	55.0
200	270	M2BA355MLB8	740	360	5.5	95.3	95.3	93.3	0.81	0.73	0.61	1.4	2.3	2581	70	150	2090	64.2

I_n=Nominal or rated current

I_s=Starting current

T_n=Nominal or rated torque in Nm

T_{max}=Maximum torque

T_s=Starting torque

T_{cold}=Cold withstand time

T_{hot}=Hot withstand time

Note: All performance figures are subjected to IS tolerances

SPDP, S1 Duty Insulation class F

415V+/- 10%, 50Hz+/- 5%

Combined variation (absolute sum 10%), IP23, IC01

SPDP Motors**2 Pole**

Output		Frame Size	Rated	Current	Efficiency			Power factor			Starting Current		St.Torque		Pull out	Weight
kw	hp		spd.(rpm)	FL(A)	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	as%of f.l. current	Y/delta	as%of f.l. current	Y/delta	Torque FL	kg
11	15	Q160M2ai	2935	20.0	85.0	84.0	81.0	0.89	0.88	0.85	700	220	180	55	270	95
15	20	Q160M2a	2910	27.0	86.5	86.5	81.0	0.90	0.87	0.81	650	210	190	60	270	95
18.5	25	Q160L2am	2910	34.0	89.0	89.0	88.0	0.90	0.88	0.83	700	220	190	60	270	115
22	30	Q160L2bm	2945	42.0	89.0	89.0	88.0	0.90	0.88	0.83	750	260	220	50	290	120
30	40	Q160L2b	2910	51.0	90.0	90.0	89.5	0.92	0.90	0.86	750	240	220	60	280	130
37	50	Q180L2d	2900	65.0	90.0	90.0	88.0	0.88	0.86	0.82	670	210	200	60	300	180
45	60	Q200M2a	2910	79.0	89.0	89.0	88.0	0.90	0.89	0.86	600	200	180	55	270	200
55	75	Q200L2a	2900	93.0	89.0	89.0	88.0	0.90	0.89	0.86	600	200	180	55	270	215
75	100	Q225M2a	2955	124.0	91.5	90.5	86.0	0.92	0.91	0.88	700	230	180	55	265	285
90	125	Q225M2b	2955	152.0	91.5	91.0	89.0	0.90	0.88	0.82	700	230	200	60	300	300
110	150	Q250M2emi	2945	185.0	91.0	91.0	89.5	0.90	0.88	0.83	650	200	160	45	240	415
132	180	Q250M2em	2940	223.0	91.5	91.5	90.0	0.90	0.88	0.83	650	200	160	45	240	545
160	220	Q280M2b*	2950	270.0	91.5	91.5	90.0	0.90	0.88	0.83	650	200	170	50	250	755
200	270	Q315M2a*	2950	336.0	92.0	92.0	90.0	0.90	0.88	0.83	680	210	170	50	250	815
250	340	Q315M2c*	2950	418.0	92.5	92.0	90.0	0.90	0.88	0.83	700	210	170	50	250	865

4 Pole

Output		Frame Size	Rated	Current	Efficiency			Power factor			Starting Current		St.Torque		Pull out	Weight
kw	hp		spd.(rpm)	FL(A)	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	as%of f.l. current	Y/delta	as%of f.l. current	Y/delta	Torque FL	kg
9.3	12.5	Q160M4ai	1445	18.5	86.0	86.0	84.0	0.82	0.75	0.59	650	200	180	55	280	85
11	15	Q160M4a	1445	22.0	85.0	84.0	82.0	0.82	0.77	0.67	650	190	180	55	280	95
15	20	Q160L4a	1440	29.0	87.5	87.5	86.0	0.82	0.78	0.67	670	210	190	60	280	125
18.5	25	Q160L4c	1450	35.0	89.0	89.0	87.0	0.84	0.79	0.66	750	230	200	60	320	140
22	30	Q180L4b	1460	41.0	89.0	89.0	88.0	0.84	0.78	0.68	650	200	220	65	320	165
30	40	Q180L4c	1455	55.0	90.0	90.0	89.0	0.84	0.80	0.71	550	170	200	60	280	185
37	50	Q200M4b	1455	67.0	89.5	89.5	87.0	0.86	0.78	0.67	600	190	200	60	280	210
45	60	Q200L4b	1460	80.0	90.0	90.0	88.0	0.87	0.80	0.69	600	190	200	60	280	230
55	75	Q225M4a	1460	96.0	90.0	90.0	88.0	0.88	0.84	0.75	650	200	190	55	270	275
75	100	Q225M4d	1460	132.0	91.0	91.0	89.0	0.87	0.83	0.74	550	170	180	55	270	325
90	125	Q250M4d	1465	155.0	92.5	92.5	91.5	0.87	0.83	0.73	600	180	170	60	230	430
110	150	Q250M4f	1470	188.0	92.5	92.5	91.5	0.88	0.85	0.78	600	180	170	50	230	430
132	180	Q280M4c	1470	225.0	93.0	93.0	92.0	0.88	0.85	0.78	600	180	170	50	230	595
160	220	Q315M4a	1470	270.0	93.5	93.5	92.5	0.89	0.89	0.80	650	180	160	45	230	850
200	270	Q315m4c	1470	335.0	93.5	93.5	92.5	0.89	0.89	0.80	650	180	160	45	230	850
250	340	Q316m4e	1475	418.0	93.5	93.5	92.5	0.89	0.89	0.80	650	180	160	45	230	850

6 Pole

SPDP Motors

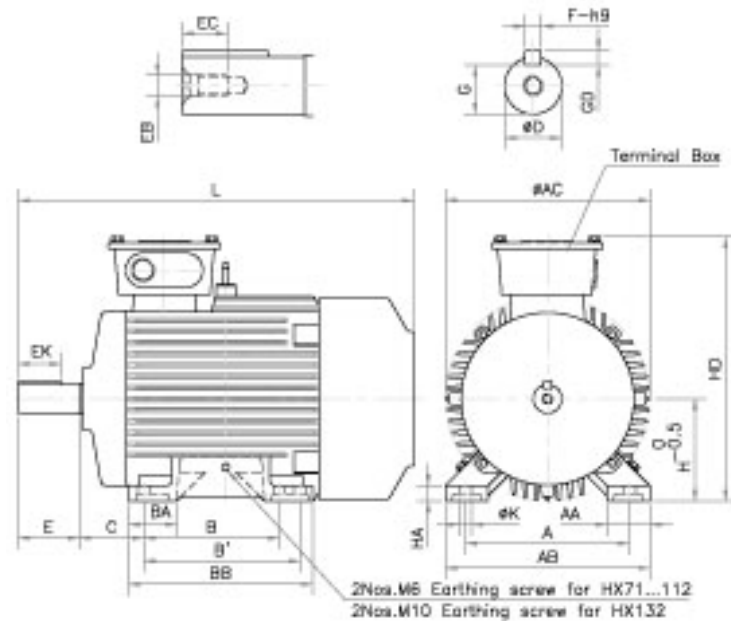
Output		Frame Size	Rated	Current	Efficiency			Power factor			Starting Current		St. Torque		Pull out	Weight
kw	hp		spd.(rpm)	FL(A)	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	as%of f.l. current	Y/delta	as%of f.l. current	Y/delta	Torque FL	kg
7.5	10	Q160M6b	975	15.5	86.5	86.0	82.0	0.76	0.67	0.53	650	200	210	65	300	100
9.3	12.5	Q160M6bi	970	18.5	89.0	88.5	87.0	0.79	0.74	0.61	650	200	210	65	300	110
11	15	Q160L6b	970	23.0	87.5	87.0	84.5	0.76	0.71	0.60	700	220	230	70	330	130
15	20	Q180L6c	965	29.0	89.0	89.0	88.0	0.81	0.73	0.62	700	220	240	70	350	170
18.5	25	Q180L6f	965	35.0	89.0	89.0	86.5	0.82	0.72	0.60	700	220	240	70	350	190
22	30	Q200M6a	960	41.0	89.0	89.0	87.0	0.83	0.77	0.68	550	175	200	60	280	200
30	40	Q200M6c	965	55.0	89.5	89.5	87.0	0.84	0.78	0.69	550	175	200	60	280	235
37	50	Q225M6a	970	68.0	90.0	90.0	89.0	0.85	0.80	0.75	550	180	190	60	270	275
45	60	Q225M6b	965	82.5	91.5	91.5	90.0	0.82	0.78	0.67	580	180	180	50	250	300
55	75	Q250M6d	980	96.0	91.0	91.0	90.0	0.87	0.83	0.73	600	180	175	45	220	430
75	100	Q250M6g	980	128.0	92.0	92.0	91.0	0.87	0.83	0.73	600	180	175	45	220	430
90	125	Q280M6d	980	156.0	92.5	92.5	91.5	0.87	0.83	0.73	600	180	175	45	230	625
110	150	Q315M6b*	980	190.0	92.5	92.5	91.5	0.87	0.83	0.73	600	180	175	45	230	830
132	180	Q315M6d*	980	229.0	92.5	92.5	91.5	0.87	0.83	0.73	600	180	175	45	220	830
160	220	Q315M6g	980	275.0	93.0	93.0	92.0	0.87	0.83	0.73	650	180	175	45	220	890

8 Pole

Output		Frame Size	Rated	Current	Efficiency			Power factor			Starting Current		St. Torque		Pull out	Weight
kw	hp		spd.(rpm)	FL(A)	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	as%of f.l. current	Y/delta	as%of f.l. current	Y/delta	Torque FL	kg
5.5	7.5	Q160M8d*	710	12.0	81.5	81.5	80.5	0.76	0.72	0.61	500	170	180	5	230	110
7.5	10	Q160L8g*	715	16.0	83.5	83.5	82.5	0.77	0.73	0.63	500	170	180	55	230	140
11	15	Q160L8h*	715	23.5	83.5	83.5	82.5	0.78	0.74	0.65	500	170	180	55	240	165
15	20	Q180L8ei*	715	31.0	85.0	85.0	85.0	0.80	0.75	0.67	500	170	170	50	240	215
18.5	25	Q180L8e*	715	38.0	85.0	85.0	85.0	0.80	0.75	0.67	500	170	170	50	240	215
22	30	Q200L8e*	720	44.0	86.5	86.5	86.5	0.81	0.77	0.69	500	170	170	50	240	255
30	40	Q200L8g*	720	59.0	86.5	86.5	86.5	0.81	0.77	0.69	500	170	170	50	240	280
37	50	Q225M8e*	725	72.0	87.5	87.5	87.5	0.82	0.78	0.70	500	170	170	50	250	350
45	60	Q250M8e*	725	85.0	89.5	89.5	89.5	0.82	0.78	0.70	500	150	130	35	190	455
55	75	Q250M8g*	725	104.0	90.0	90.0	90.0	0.82	0.78	0.70	500	150	130	35	190	565
75	100	Q280M8f	730	139.0	91.5	91.5	91.5	0.82	0.78	0.70	550	160	150	40	200	665
90	125	Q280M8g*	730	166.0	92.0	92.0	91.0	0.82	0.78	0.70	550	160	150	40	210	840
110	150	Q315M8g*	735	199.0	92.5	92.5	91.5	0.83	0.79	0.71	600	170	160	45	210	940
132	180	Q315M8h*	735	239.0	92.5	92.5	91.5	0.83	0.79	0.71	600	170	160	45	210	1020

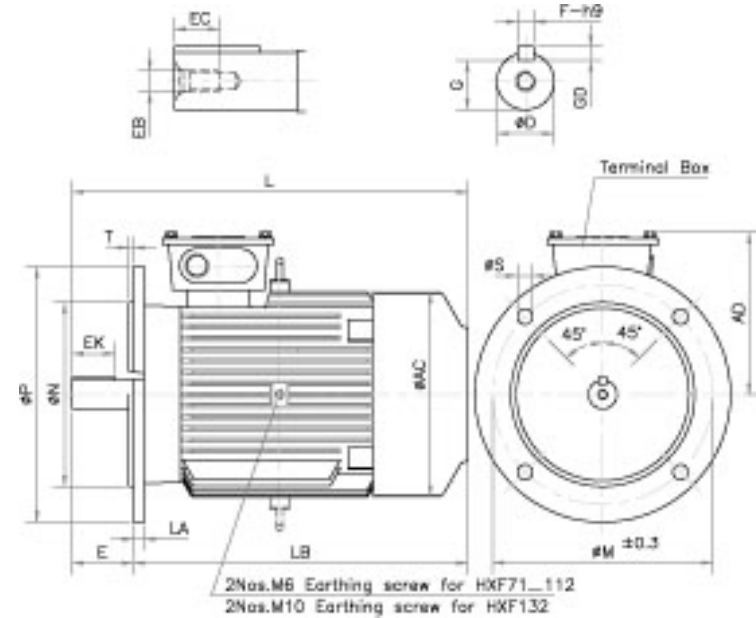
HX 71...132 (Foot Mounted)

Mounting Designation B3, B6, B7, B8, V5, V6



HXF 71...132 (Flange Mounted)

Mounting Designation B5, V1



Frame	A	AA	AB	AC	B	B'	BA	BB	C	D – Tol.	E	EB	EC	EK
HX 71	112	25	130	136	90	–	26	110	45	14 – j6	30	M5	12	16
HX 80	125	25	147	152	100	–	30	126	50	19 – j6	40	M6	17	24
HX 90SL	140	27	162	174	100	125	30	151	56	24 – j6	50	M8	19	32
HX 100L	160	42	200	200	140	–	47	180	63	28 – j6	60	M10	22	42
HX 112M	190	48	230	221	140	–	47	180	70	28 – j6	60	M10	22	42
HX 132SM	216	48	256	258	140	178	47	218	89	38 – k6	80	M12	28	60

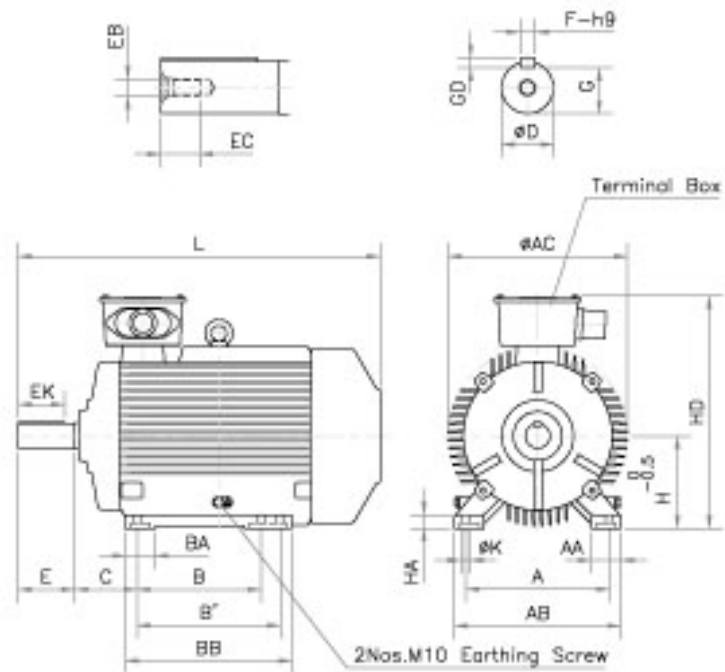
Frame	AC	AD	D – Tol.	E	EB	EC	EK	F	G	GD	L	LA	LB	M
HX 71	136	114	14 – j6	30	M5	12	16	5	11	5	253	9	223	130
HX 80	152	120	19 – j6	40	M6	17	24	6	15.5	6	290	10	250	165
HX 90SL	174	146	24 – j6	50	M8	19	32	8	20	7	332	10	282	165
HX 100L	200	161	28 – j6	60	M10	22	42	8	24	7	387	11	327	215
HX 112M	221	171	28 – j6	60	M10	22	42	8	24	7	392	11	332	215
HX 132SM	258	191	38 – k6	80	M12	28	60	10	33	8	468	12	388	265

Frame	F	G	GD	H	HA	HD	K	L	Bearing	
									DS	NDS
HX 71	5	11	5	71	9	185	7	253	6203ZZ C3	6202ZZ C3
HX 80	6	15.5	6	80	10	200	10	290	6204ZZ C3	6203ZZ C3
HX 90SL	8	20	7	90	13	236	10	332	6205ZZ C3	6205ZZ C3
HX 100L	8	24	7	100	15	261	12	387	6306ZZ C3	6206ZZ C3
HX 112M	8	24	7	112	18	283	12	392	6307ZZ C3	6206ZZ C3
HX 132SM	10	33	8	132	20	323	12	468	6308ZZ C3	6307ZZ C3

Frame	N – Tol.	P	S	T	Bearing	
					DS	NDS
HX 71	100 – j6	160	10	3.5	6203ZZ C3	6202ZZ C3
HX 80	130 – j6	200	12	3.5	6204ZZ C3	6203ZZ C3
HX 90SL	130 – j6	200	12	3.5	6205ZZ C3	6205ZZ C3
HX 100L	180 – j6	250	15	4	6306ZZ C3	6206ZZ C3
HX 112M	180 – j6	250	15	4	6307ZZ C3	6206ZZ C3
HX 132SM	230 – j6	300	15	4	6308ZZ C3	6307ZZ C3

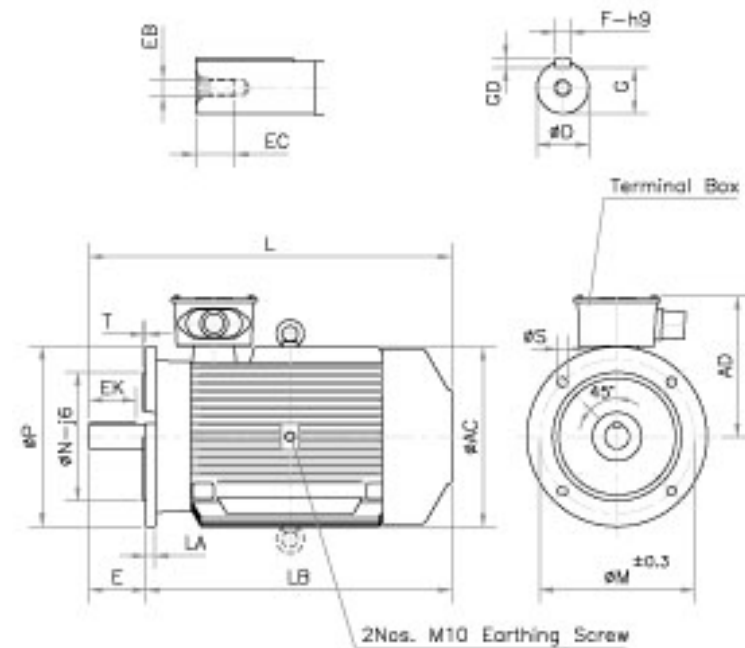
HX 160, HX, HX+ 180, 200 (Foot Mounted)

Mounting Designation B3, B6, B7, B8, V5, V6



HXF 160, HXF, HXF+ 180, 200 (Flange Mounted)

Mounting Designation B5, V1, IM3001



Frame	A	AA	AB	AC	B	B'	BA	BB	C	D – Tol.	E	EB	EC	EK
HX 160ML	254	60	310	305	210	254	65	310	108	42 – k6	110	M16	36	90
HX,HX+180ML	279	58	324	348	241	279	53	324	121	48 – k6	110	M16	36	90
HX,HX+200ML	318	70	378	381	267	305	81	354	133	55 – M6	110	M20	42	90

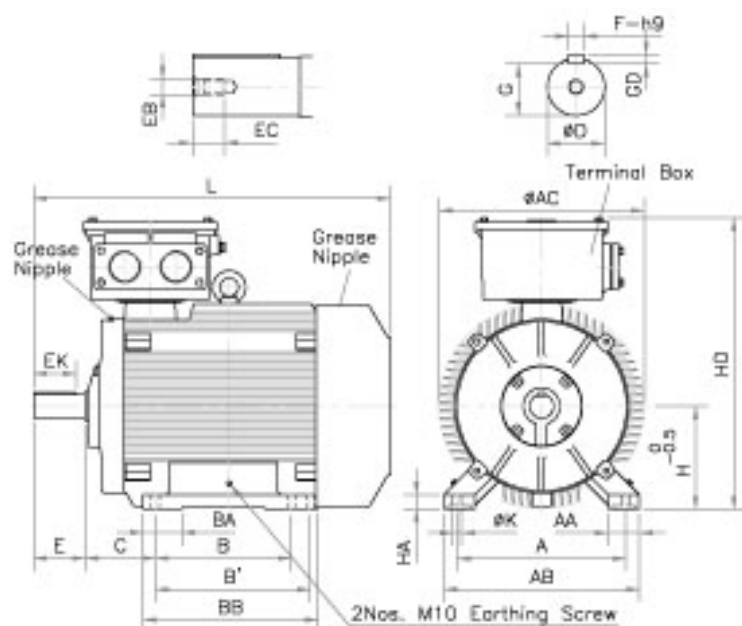
Frame	AC	AD	D – Tol.	E	EB	EC	EK	F	G	GD	L	LA
HXF 160ML	305	255	42 – k6	110	M16	36	90	12	37	8	675	16
HXF,HXF+180ML	348	275	48 – k6	110	M16	36	90	14	42.5	9	705	20
HXF,HXF+200ML	381	295	55 – m6	110	M20	42	90	16	49	10	731	20

Frame	F	G	GD	H	HA	HD	K	L	Bearing	
									DS	NDS
HX 160ML	12	37	8	160	22	415	15	675	6309ZZ C3	6308ZZ C3
HX,HX+180ML	14	42.5	9	180	26	455	15	705	6310ZZ C3	6309ZZ C3
HX,HX+200ML	16	49	10	200	30	495	19	731	6312ZZ C3	6311ZZ C3

Frame	LB	M	N	P	S	T	Bearing	
							DS	NDS
HXF 160ML	565	300	250	350	19	5	6309ZZ C3	6308ZZ C3
HXF,HXF+180ML	595	300	250	350	19	5	6310ZZ C3	6309ZZ C3
HXF,HXF+200ML	621	350	300	400	19	5	6312ZZ C3	6311ZZ C3

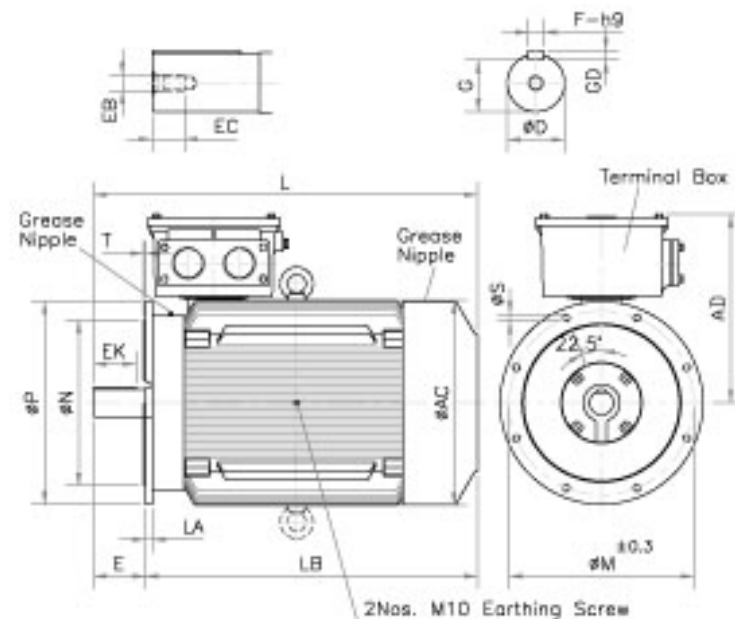
HX, HX+ 225...280 (Foot Mounted)

Mounting Designation B3, B6, B7, B8, V5, V6



HXF, HXF+ 225...280 (Flange Mounted)

Mounting Designation B5, V1



Frame	A	AA	AB	AC	B	B'	BA	BB	C	D - Tol.	E	EB	EC
HX, HX+ 2 pole	356	65	416	442	286	311	83	360	149	55 - m6	110	M20	42
225SM 4...8 pole	356	65	416	442	286	311	83	360	149	60 - m6	140	M20	42
HX, HX+ 2 pole	406	80	473	495	349	-	93	406	168	60 - m6	140	M20	42
250M 4...8 pole	406	80	473	495	349	-	93	406	168	65 - m6	140	M20	42
HX, HX+ 2 pole	457	85	530	556	368	419	105	486	190	65 - m6	140	M20	42
280SM 4...8 pole	457	85	530	556	368	419	105	486	190	75 - m6	140	M20	42

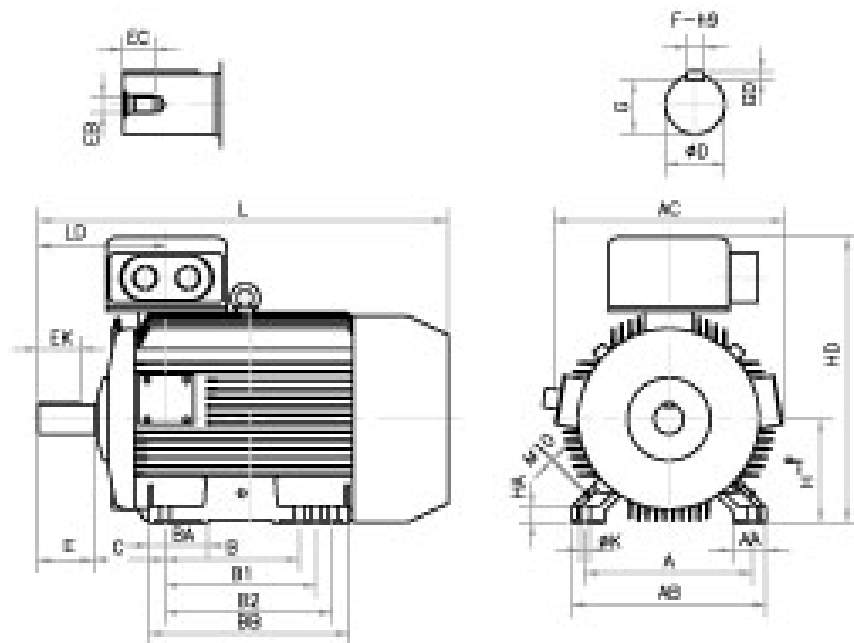
Frame	AC	AD	D - Tol.	E	EB	EC	EK	F	G	GD	L	LA
HXF, HXF+ 2 pole	442	391	55 - m6	110	M20	42	90	16	49	10	805	22
225SM 4...8 pole	442	391	60 - m6	140	M20	42	115	18	53	11	835	22
HXF, HXF+ 2 pole	495	416	60 - m6	140	M20	42	115	18	53	11	910	22
250M 4...8 pole	495	416	65 - m6	140	M20	42	115	18	58	11	910	22
HXF, HXF+ 2 pole	556	448	65 - m6	140	M20	42	115	18	58	11	1040	22
280SM 4...8 pole	556	448	75 - m6	140	M20	42	115	20	67.5	12	1040	22

Frame	EK	F	G	GD	H	HA	HD	K	L	Bearing	
										DS	NDS
HX, HX+ 2 pole	90	16	49	10	225	32	616	19	805	6313 C3	6312 C3
225SM 4...8 pole	115	18	53	11	225	32	616	19	835	6313 C3	6312 C3
HX, HX+ 2 pole	115	18	53	11	250	40	666	24	910	6315 C3	6313 C3
250M 4...8 pole	115	18	58	11	250	40	666	24	910	6315 C3	6313 C3
HX, HX+ 2 pole	115	18	58	11	280	40	728	24	1040	6316 C3	6315 C3
280SM 4...8 pole	115	20	67.5	12	280	40	728	24	1040	6316 C3	6315 C3

Frame	LB	M	N - Tol.	P	S	T	Bearing	
							DS	NDS
HXF, HXF+ 2 pole	695	400	350 - j6	450	19	5	6313 C3	6312 C3
225SM 4...8 pole	695	400	350 - j6	450	19	5	6313 C3	6312 C3
HXF, HXF+ 2 pole	770	500	450 - j6	550	19	5	6315 C3	6313 C3
250M 4...8 pole	770	500	450 - j6	550	19	5	6315 C3	6313 C3
HXF, HXF+ 2 pole	900	500	450 - j6	550	19	5	6316 C3	6315 C3
280SM 4...8 pole	900	500	450 - j6	550	19	5	6316 C3	6315 C3

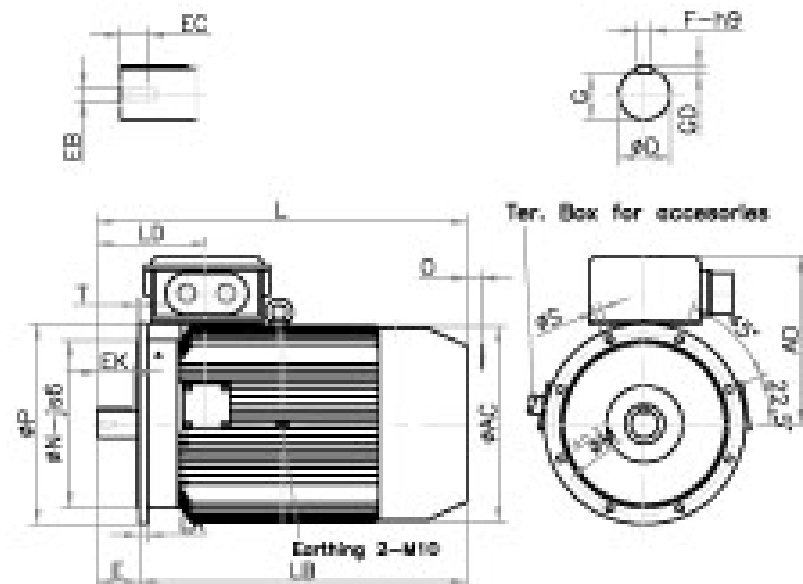
M2BA 315 (Sea Farics)

Mounting Designation B3, IM1001



M2BA 315 (Flange Mounted)

Mounting Designation B5, IM3001



Type	A	AA	AB	AC	B	B1	B2	BA	BB	C	D – Tol.	E	EB	EC
M2BA315SML 2 pole (SM Frame)	508	120	620	645	406	457	508	180	608	216	65 – m6	140	M20	40
M2BA315SML 4...8 pole (SM Frame)	508	120	620	645	406	457	508	180	608	216	80 – m6	170	M20	40
M2BA315SML 2 pole (ML Frame)	508	120	620	645	406	457	508	180	608	216	65 – m6	140	M20	40
M2BA315SML 4...8 pole (ML Frame)	508	120	620	645	406	457	508	180	608	216	90 – m6	170	M24	48

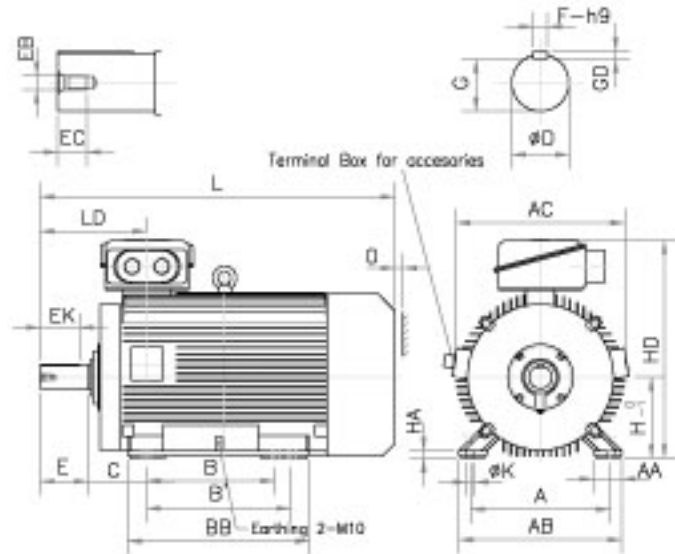
Type	AC	AD	D – Tol.	E	EB	EC	EK	F	G	GD	L	LA	LB
M2BAF315SML 2 pole (SM Frame)	645	557	65 – m6	140	M20	40	115	18	58	11	1215	22	1075
M2BAF315SML 4...8 pole (SM Frame)	645	557	80 – m6	170	M20	40	130	22	71	14	1245	22	1075
M2BAF315SML 2 pole (ML Frame)	645	557	65 – m6	140	M20	40	115	18	58	11	1215	22	1075
M2BAF315SML 4...8 pole (ML Frame)	645	557	90 – m6	170	M24	48	130	25	81	14	1245	22	1075

Type	EK	F	G	GD	H	HA	HD	K	L	LD	O	Bearing	
												DS	NDS
M2BA315SML 2 pole (SM Frame)	115	18	58	11	315	50	872	28	1215	360.5	115	6316 C3	6316 C3
M2BA315SML 4...8 pole (SM Frame)	130	22	71	14	315	50	872	28	1245	390.5	115	6319 C3	6316 C3
M2BA315SML 2 pole (ML Frame)	115	18	58	11	315	50	872	28	1215	360.5	115	6316 C3	6316 C3
M2BA315SML 4...8 pole (ML Frame)	130	25	81	14	315	50	872	28	1245	390.5	115	6319 C3	6316 C3

Type	LD	M	N	P	S	T	O	Bearing	
								DS	NDS
M2BAF315SML 2 pole (SM Frame)	360.5	600	550	660	24	6	115	6316 C3	6316 C3
M2BAF315SML 4...8 pole (SM Frame)	390.5	600	550	660	24	6	115	6319 C3	6316 C3
M2BAF315SML 2 pole (ML Frame)	360.5	600	550	660	24	6	115	6316 C3	6316 C3
M2BAF315SML 4...8 pole (ML Frame)	390.5	600	550	660	24	6	115	6319 C3	6316 C3

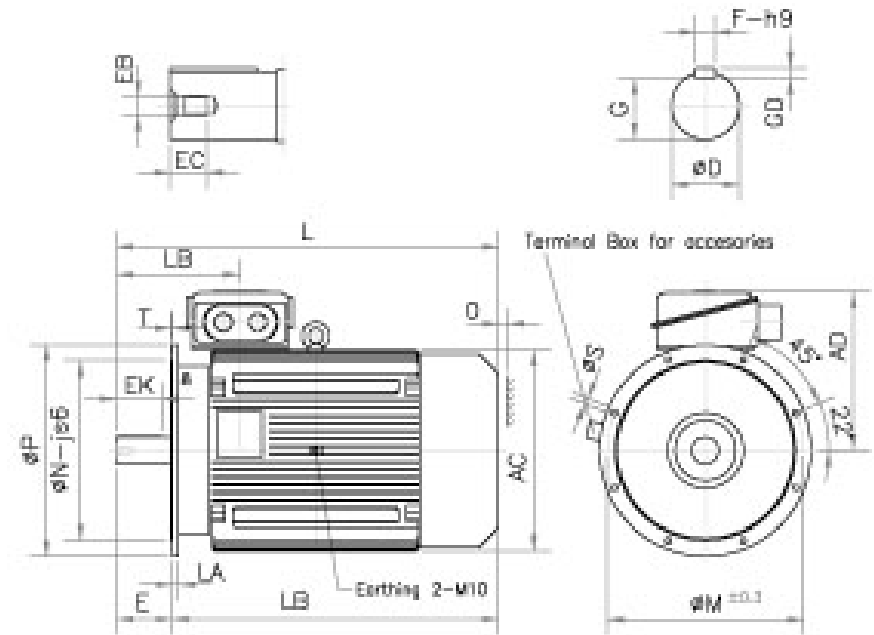
M2BA 355 (Foot Mounted)

Mounting Designation B3, IM1001



M2BA 355 (Flange Mounted)

Mounting Designation B5, IM3001



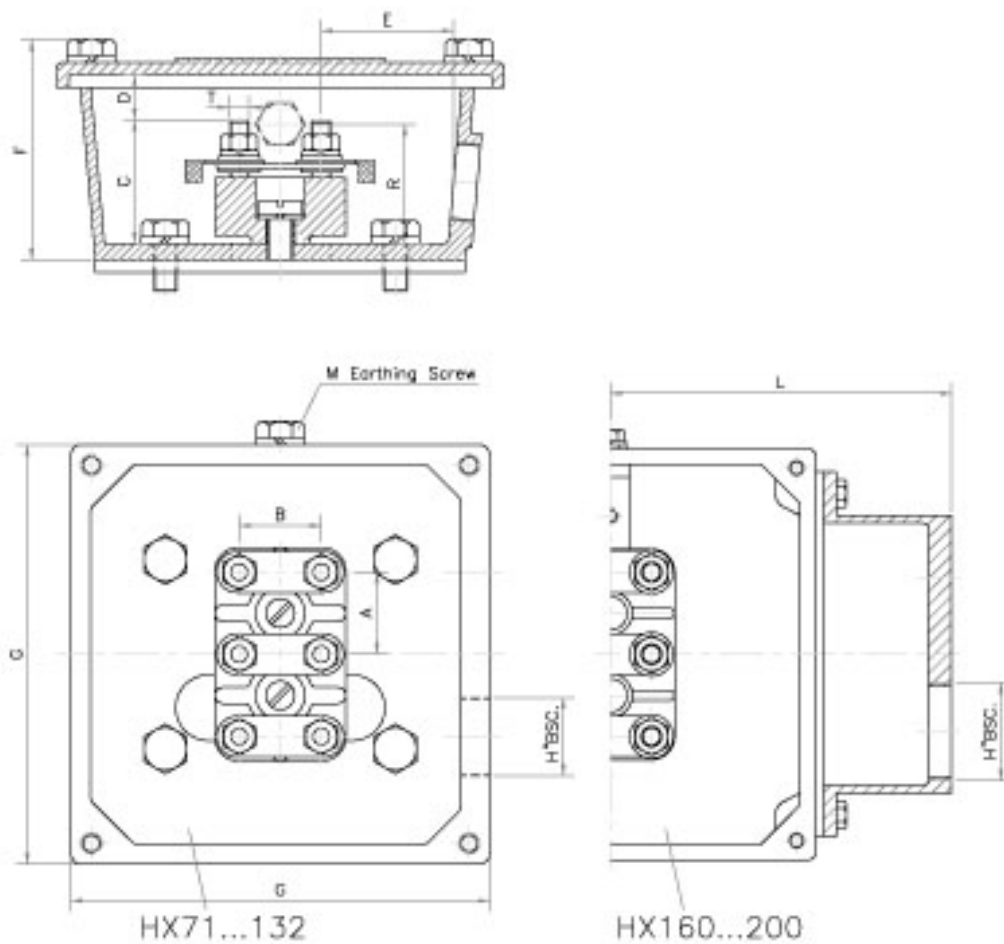
Frame	A	AA	AB	AC	B	B'	BA	BB	C	D – Tol.	E	EB	EC
M2BA355SM 2 pole	610	120	710	738	500	560	160	732	254	75 – m6	140	M20	40
4...8 pole	610	120	710	738	500	560	160	732	254	100 – m6	210	M24	48
M2BA355SM 2 pole	610	120	710	738	560	630	160	794	254	75 – m6	140	M20	40
4...8 pole	610	120	710	738	560	630	160	794	254	100 – m6	210	M24	48

Type	AC	AD	D – Tol.	E	EB	EC	EK	F	G	GD	L	LA	LB
M2BAF315SML 2 pole	738	610	75 – m6	140	M20	40	115	20	67.5	12	1399	25	1259
(SM Frame) 4...8 pole	738	610	100 – m6	210	M24	48	170	28	90	16	1469	25	1259
M2BAF315SML 2 pole	738	610	75 – m6	140	M20	40	115	20	67.5	12	1504	25	1364
(ML Frame) 4...8 pole	738	610	100 – m6	210	M24	48	170	28	90	16	1574	25	1364

Type	EK	F	G	GD	H	HA	HD	K	L	LD	O	Bearing	
												DS	NDS
M2BA355SM 2 pole	115	20	67.5	12	355	33	965	28	1399	395	130	6319 C3	6319 C3
4...8 pole	170	28	90	16	355	33	965	28	1469	465	130	6322 C3	6319 C3
M2BA355SM 2 pole	115	20	67.5	12	355	33	965	28	1504	395	130	6319 C3	6319 C3
4...8 pole	170	28	90	16	355	33	965	28	1574	465	130	6322 C3	6319 C3

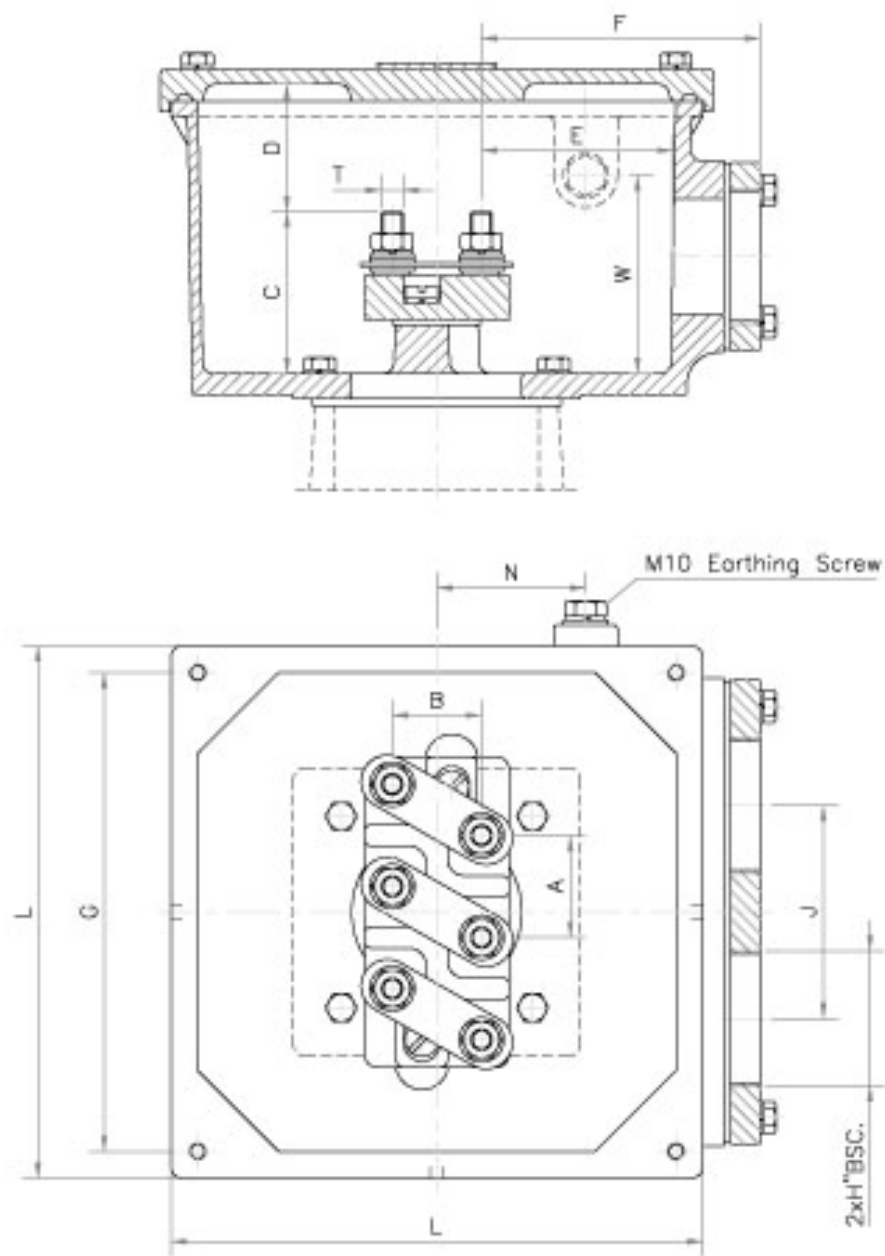
Type	LD	M	N	P	S	T	O	Bearing	
								DS	NDS
M2BAF315SML 2 pole	395	740	680	800	24	6	130	6319 C3	6319 C3
(SM Frame) 4...8 pole	465	740	680	800	24	6	130	6322 C3	6319 C3
M2BAF315SML 2 pole	395	740	680	800	24	6	130	6319 C3	6319 C3
(ML Frame) 4...8 pole	465	740	680	800	24	6	130	6322 C3	6319 C3

Terminal Box HX 71...200



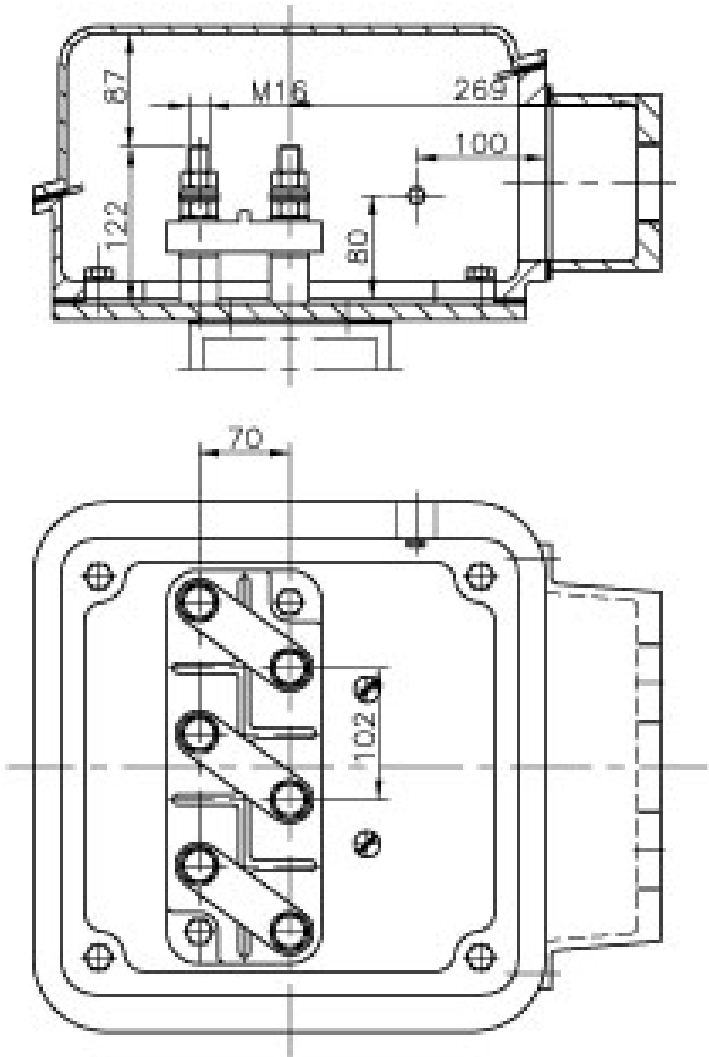
Frame	T	A	B	C	D	E	F	G	H	L	M	R
HX 71	M4	16	16	26	8	20	42	74	3/4"	–	M4	–
HX 80	M4	16	16	26	8	20	42	74	3/4"	–	M4	–
HX 90SL	M5	20	20	30	11	32	55	102	3/4"	–	M6	–
HX 100L	M5	20	20	30	11	32	55	102	1"	–	M6	–
HX 112M	M5	20	20	30	11	32	55	102	1"	–	M6	–
HX 132SM	M5	20	20	30	11	32	55	102	1"	–	M6	–
HX 160ML	M8	32	32	59	23	56	95	160	1 1/2"	135	M6	52
HX 180ML	M8	32	32	59	23	56	95	160	1 1/2"	135	M6	52
HX 200ML	M8	32	32	59	23	56	95	160	1 1/2"	135	M6	52

Terminal Box Hx 225...280



Frame	A	B	C	D	E	F	G	H	L	T	W	J	N
HX+ 225	48	42	76	60	90	131	225	2"	250	M10	93	–	70
HX+ 250, 280	56	48	91	45	87	128	225	2 1/2"	250	M12	93	100	70

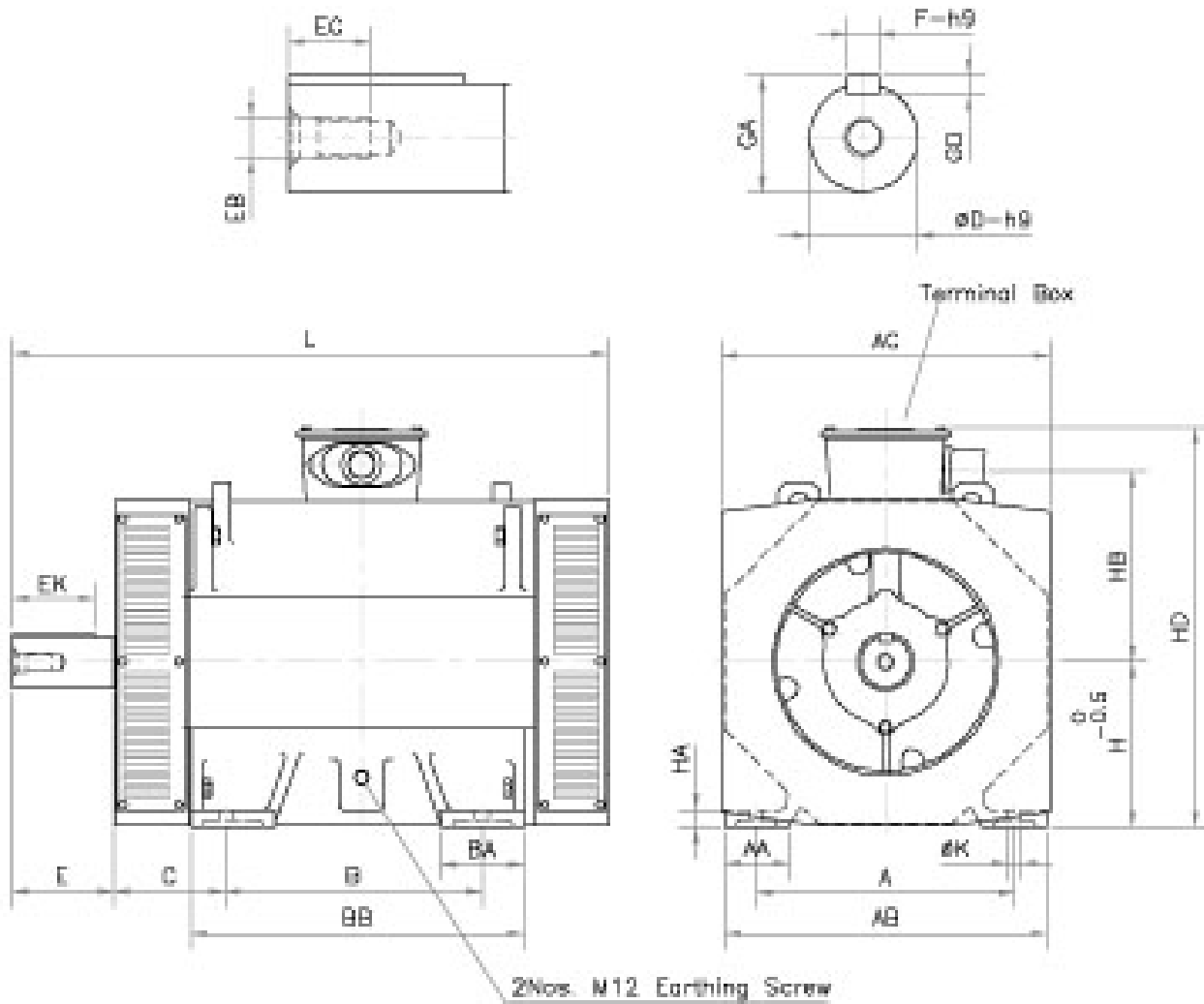
Terminal Box M2BA315, 355



Q160M...Q200L (Foot Mounted)

Mounting Designation B3

Squirrel Cage Motors



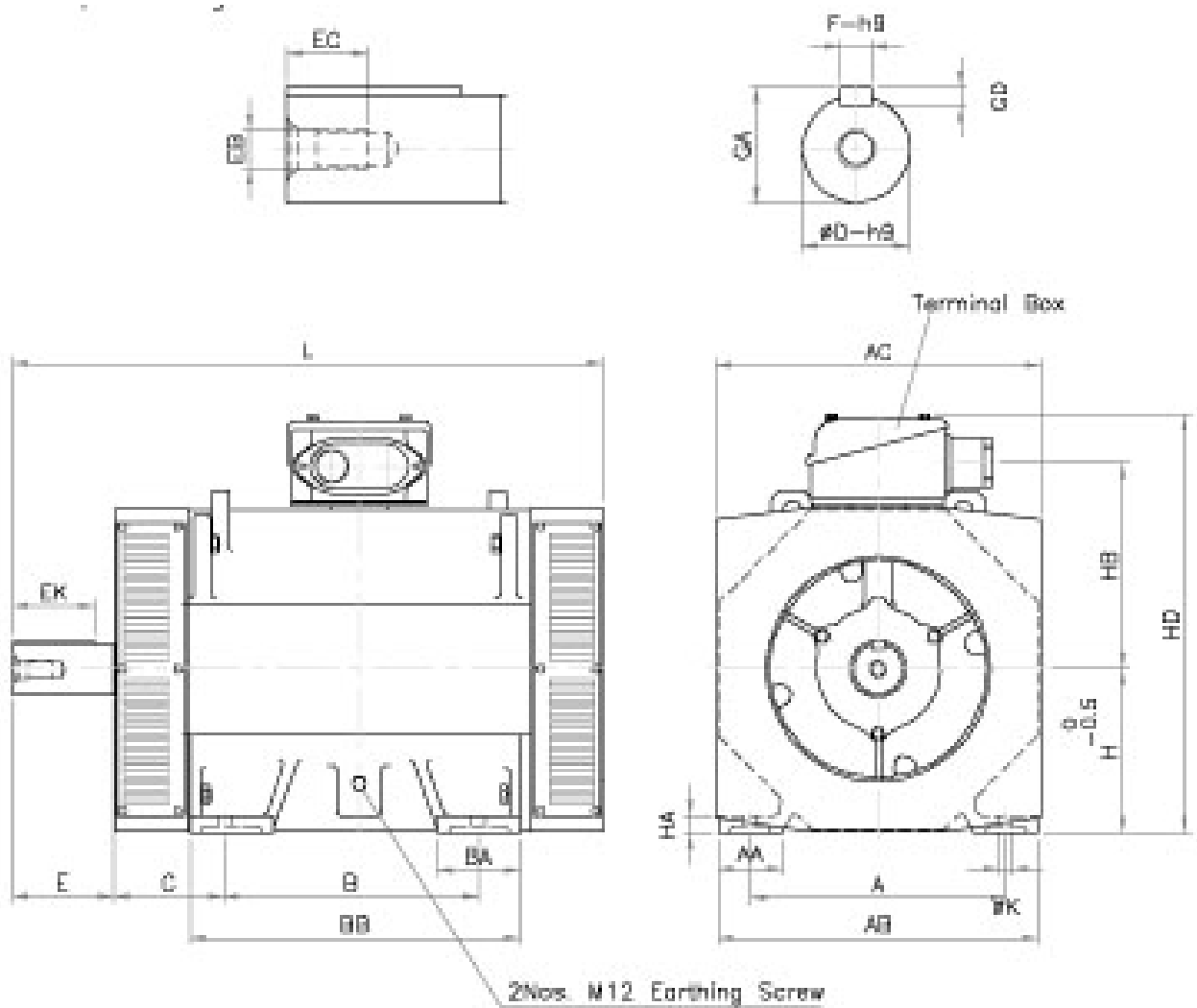
Frame		A	AA	AB	AC	B	BA	BB	C	D – Tol.	EB	E	EC	EK
Q160M	2...8 Pole	254	60	310	324	210	80	273	108	48 – k6	M16	110	36	90
Q160L	2...8 Pole	254	60	310	324	254	80	333	108	48 – k6	M16	110	36	90
Q180L	2...8 Pole	279	70	350	356	279	90	360	121	55 – g6	M20	110	42	90
Q200M	2...8 Pole	318	80	388	394	267	106	350	133	60 – g6	M20	140	42	115
Q200L	2...8 Pole	318	80	388	394	305	106	413	133	60 – g6	M20	140	42	115

Frame		F	G	GA	GD	H	HA	HB	HD	K	L	Bearing	
												DS	NDS
Q160M	2...8 Pole	14	42.5	51.5	9	160	18	192	410	15	539	6310 C3	6310 C3
Q160L	2...8 Pole	14	42.5	51.5	9	160	18	192	410	15	609	6310 C3	6310 C3
Q180L	2...8 Pole	16	49	59	10	180	20	212	450	15	649	6311 C3	6311 C3
Q200M	2...8 Pole	18	53	64	11	200	22	235	490	19	672	6312 C3	6312 C3
Q200L	2...8 Pole	18	53	64	11	200	22	235	490	19	735	6312 C3	6312 C3

Q225M...Q280L (Foot Mounted)

Mounting Designation B3

Squirrel Cage Motors

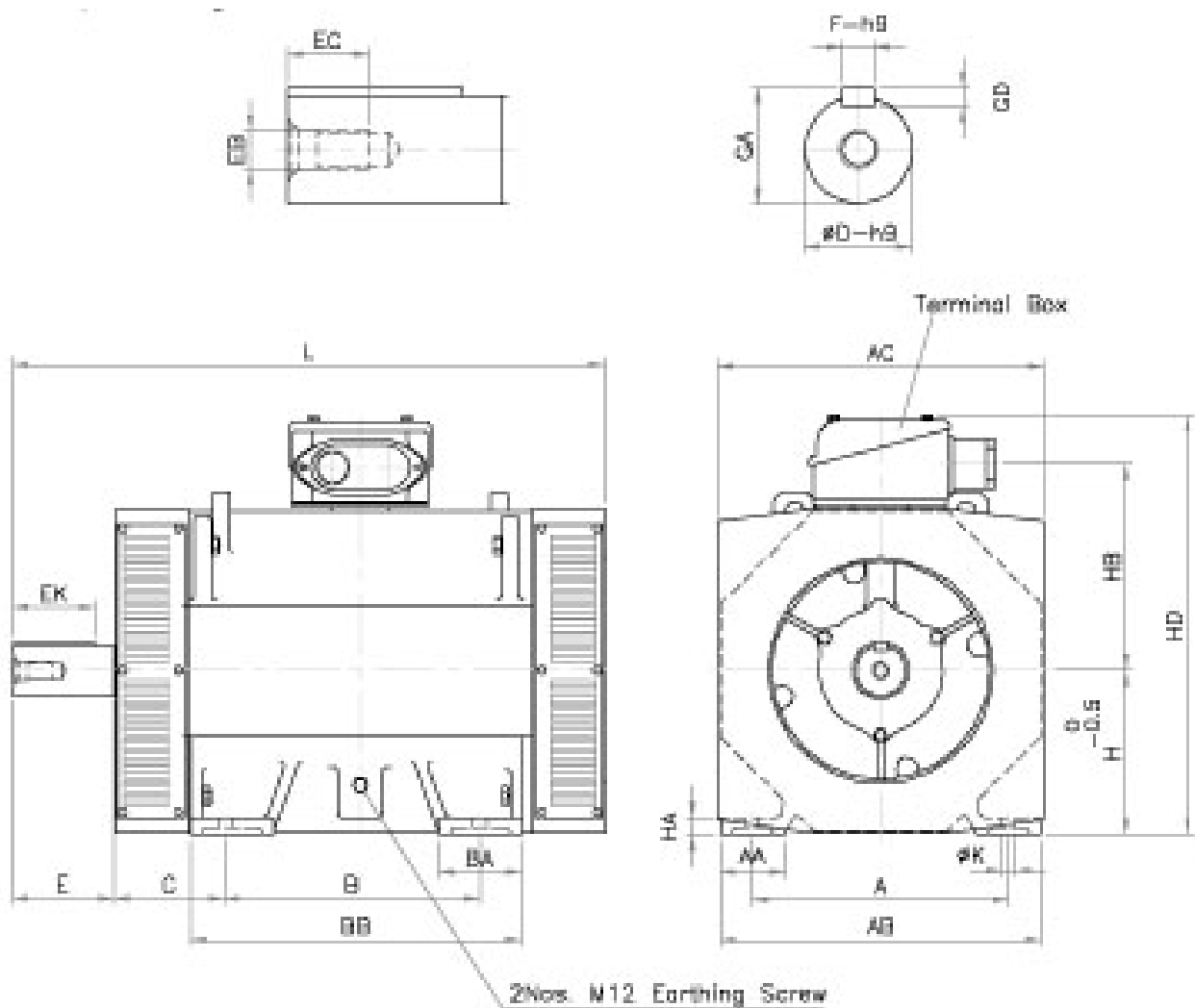


Frame		A	AA	AB	AC	B	BA	BB	C	D – Tol.	EB	E	EC	EK
Q225M	2 Pole	356	90	438	444	311	110	421	149	60 – m6	M20	140	42	115
	4...8 Pole	356	90	438	444	311	110	421	149	65 – m6	M20	140	42	115
Q250M	2 Pole	406	100	488	497	349	140	500	168	65	M20	140	42	115
	4...8 Pole	406	100	488	497	349	140	500	168	75	M20	140	42	115
Q280M	2 Pole	457	110	550	569	419	130	505	190	65	M20	140	42	115
	4...8 Pole	457	110	550	569	419	130	505	190	80	M20	170	42	130

Frame		F	G	GA	GD	H	HA	HB	HD	K	L	Bearing	
												DS	NDS
Q225M	2 Pole	18	53	64	11	225	23	280	575	19	769	6314 C3	6314 C3
	4...8 Pole	18	58	69	11	225	23	280	575	19	769	6314 C3	6314 C3
Q250M	2 Pole	18	58	69	11	250	25	305	625	24	887	6316 C3	6316 C3
	4...8 Pole	20	67.5	79.5	12	250	25	305	625	24	887	6316 C3	6316 C3
Q280M	2 Pole	18	58	69	11	280	35	335	685	24	943	6318 C3	6318 C3
	4...8 Pole	22	71	85	14	280	35	335	685	24	973	6318 C3	6318 C3

Q315M (Foot Mounted)

Mounting Designation B3
Squirrel Cage Motors



Frame		A	AA	AB	AC	B	BA	BB	C	D – Tol.	EB	E	EC	EK
Q315M	2 Pole	508	125	618	637	457	140	541	216	70	M20	140	42	115
	4...8 Pole	508	125	618	637	457	140	541	216	90	M24	170	50	130

Frame		F	G	GA	GD	H	HA	HB	HD	K	L	Bearing	
												DS	NDS
Q225M	2 Pole	20	62.5	74.5	12	315	40	400	830	28	1021	6320 C3	6316 C3
	4...8 Pole	25	81	95	14	315	40	400	830	28	1051	6320 C3	6316 C3

Major components

S. No.	Component	Material	Remarks
1	Housing	Cast iron / fabricated steel	Optimally sized fins for efficient cooling
2	Stator	Insulated silicon steel (CRNGO), Super enameled copper wire IS:4800 part 5 Type 2, Advanced NPN based class 'F' insulation	Low loss, consistency in performance
3	Rotor	Aluminum die cast or copper strips in Insulated silicon steel (CRNGO)	Dynamically balanced
4	Shaft	Carbon steel 'EN 8'	Open key way
5	Endshield and bearing cover	Cast iron	
6	Bearing and lubrication	Ball / Roller Lithium complex based	Normal / C3 clearance
7	Oil seal	Synthetic rubber	
8	Fan	Polypropylene / Aluminum alloy	Bi-directional, aerodynamically designed
9	Fan cover	Deep Drawn steel	Lint free construction available
10	Terminal box	Aluminum / cast iron	IP:55 Top / RHS / LHS Rotatable in the steps of 90°
11	Terminal plate	Bakelite / Epoxy	Steel / brass studs 3/6 Terminals
12	Paint	Polyurethane	Munsell blue shade/ Protection against corrosion

Maximum cable size of standard motor

S. No.	Frame Motor	Max. cable size DOL Starting	Max. cable size Star/Delta Starting	Terminal stud size
1	71- 80	3c x 10 mm ²	---	M4
2	90 -132	3c x 16 mm ²	2 x 3c x 10 mm ²	M5
3	160 - 200	3c x 70 mm ²	2 x 3c x 50 mm ²	M8
4	225	2 x 3c x 120 mm ²	2 x 3c x 120 mm ²	M10
5	250 - 280	2 x 3c x 185 mm ²	2 x 3c x 185 mm ²	M12
6	315 - 355	*2 x 3c x 300 mm ²	2 x 3c x 300 mm ²	M16

* Terminal box suitable for 2 x 3c x 400 mm² is also available and can be supplied on request.

Shipping dimensions

Frame	Length mm	Width mm	Height mm	Gross Wt. Kg
71	280	200	230	10
80	320	240	250	15
90	415	265	320	30
100	440	255	365	50
112	435	275	325	60
132	605	420	515	90
160	830	500	615	160
180	865	500	655	230
200	895	570	695	330
225	1040	590	830	480
250	1100	650	910	500
280	1275	680	985	800
315	1470	1060	1160	1450
355 SM	1660	1160	1245	1850
355 ML	1730	1160	1245	1850
400	2120	1200	1495	*

*Available on request



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Due to continuous upgradation of our design, performance parameters and dimensions are subject to change without prior notice.