

IN/INE
MOTOR



• Premium Efficiency IE3 Motors

• High Efficiency IE2 Motors



Certified By



ISO 9001:2015
ISO 14001:2015

มอเตอร์ไฟฟ้าชนิด 3 สาย

Frame size 80 to 355

Power 0.37KW to 315KW

IEC Standard IP55 Class F
Foot, Flange, Face available

จุดเด่นของมอเตอร์ไฟฟ้า

INLINE
MOTOR

ด้วยความใส่ใจต่อประโยชน์ใช้สอยและยืดอายุการใช้งานมอเตอร์ให้ยาวนาน รวมทั้งความสะดวกในการบำรุงรักษาและการติดตั้ง เราจึงเพิ่มเติมคุณลักษณะของมอเตอร์ไฟฟ้า **INLINE** ให้เหมาะสมยิ่งขึ้น

IP55 กันน้ำกันฝุ่นได้ดีกว่า
Class F ทนความร้อนสูงสุด 155 Degree



เลือกใช้ตลับลูกปืน SKF เท่านั้น
เพราะเป็นยี่ห้อที่เชื่อถือได้ที่สุดในโลก



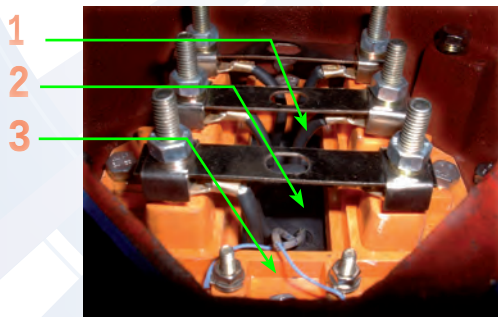
รูอัดจารบีและรูถ่ายจารบี

มอเตอร์ตั้งแต่ Frame 250 ขึ้นไป จะใช้ตลับลูกปืนชนิดเปิด มีรูอัดจารบี และรูถ่ายจารบี เพื่อให้สามารถเพิ่มเติมและเปลี่ยนถ่ายจารบีได้ ทำให้ตลับลูกปืน มีอายุการใช้งานยาวนานกว่าตลับลูกปืนแบบปิด อันเป็นการลดจำนวนครั้งในการถอดเปลี่ยนตลับลูกปืน



กล่องต่อไฟ Terminal Box

กล่องต่อไฟถูกออกแบบให้มีลักษณะตัดเฉียง เพื่อเพิ่มพื้นที่ในการสอดมือเข้าไปทำงาน รวมทั้งออกแบบให้มีลักษณะครอบทับกล่องต่อไฟเพื่อให้สามารถกันน้ำได้ดียิ่งขึ้น

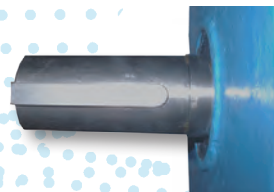


ภายในกล่องต่อไฟ

1. ฉนวนหุ้มสาย ใช้วัสดุทนความร้อนชั้นหนึ่ง ไม่เกิดไฟรั่วแม้ใช้งานเป็นเวลานานปี
2. แผ่นยางรองกล่องต่อไฟป้องกันสิ่งแปลกปลอมเข้าไปทำความเสียหายต่อขดลวด
3. Thermistor อุปกรณ์พิเศษป้องกันมอเตอร์ไหม้ตัดกระแสไฟฟ้าทันที ที่อุณหภูมิขดลวดสูงเกิน (ตั้งแต่ Frame 160 ขึ้นไป) ทั้งนี้ต้องทำงานคู่กับ Thermistor Relay

Cable Gland

1 Unit สำหรับมอเตอร์ขนาด 3KW ลงมา
2 Units สำหรับมอเตอร์ 4KW ขึ้นไป และพิเศษ Cable Gland สำหรับ Thermistor ในรุ่นที่มีการติดตั้ง Thermistor (ตั้งแต่ frame 160 ขึ้นไป)



เฟลา

เฟลาได้ถูกออกแบบให้สะดวกต่อการใช้งาน และแข็งแรง ทนต่องานหนัก สามารถถอด-ใส่ได้ง่าย แม้ใช้งานไปหลายๆ ปี



ประกาศการรับรองคุณภาพ

ผลิตจากโรงงานที่ได้รับการรับรองมาตรฐาน ISO 9001 Version 2015
ได้รับการรับรองมาตรฐาน CE สำหรับการส่งออกไปยังยุโรป
มาตรฐานการรักษาสิ่งแวดล้อม ISO 14001
รับประกันคุณภาพนาน 18 เดือน



DETAIL SPECIFICATION

◆ *THREE – PHASE INDUCTION MOTOR*

Totally Enclosed, externally ventilated, protection IP55, insulation class F with temperature rise class B, - Continuous operation – S1, Cage – type rotor in cast iron frame.

◆ *MECHANICAL AND CONSTRUCTION CHARACTERISTICS*

A motor described in this catalogue are dimensioned according to IEC Standard.

Casing : Our motor casings from size 63 to 355 are in die cast iron. The aluminum frame is upon request. Painting is blue but IE3 Motors painting is green.

Rotor : Cagerotor are made of aluminum (pressure die-cast method). The rotors are dynamically balanced (with the key inserted on shaft), in accordance with vibration rating N (IEC 60034-14).

Stator Windings : The stators, assembled from magnetic sheet metal, are wound with copper wire insulated with a double coating to class F standard. Windings are subjected to a special impregnation treatment with insulating paint, increase compactness and heat dispersion coefficients.

Ventilation : External and surface ventilation is provided by radial bi-directional fan blades installed on the opposite end of drive shaft, inside a fan cover made.

Bearings : Bearings for IE2 and IE3 Motors

Frame	Poles	Bearing#(DE/NDE)	Poles	Bearing#(DE/NDE)
80	2	6204C3 2RS / 6204C3 2RS	4, 6, 8	6204 2RS / 6204 2RS
90	2	6205C3 2RS / 6205C3 2RS	4, 6, 8	6205 2RS / 6205 2RS
100	2	6206C3 2RS / 6206C3 2RS	4, 6, 8	6206 2RS / 6206 2RS
112	2	6206C3 2RS / 6206C3 2RS	4, 6, 8	6206 2RS / 6206 2RS
132	2	6208C3 2RS / 6208C3 2RS	4, 6, 8	6208 2RS / 6208 2RS
160	2	6309C3 ZZ / 6309C3 ZZ	4, 6, 8	6309 2RS / 6309 2RS
180	2	6311C3 ZZ / 6311C3 ZZ	4, 6, 8	6311 2RS / 6311 2RS
200	2	6312C3 ZZ / 6312C3 ZZ	4, 6, 8	6312 2RS / 6312 2RS
225	2	6313C3 ZZ / 6313C3 ZZ	4, 6, 8	6313 2RS / 6313 2RS
250	2	6314C3 / 6314C3 Open	4, 6, 8	6314C3 / 6314C3 Open
280	2	6314C3 / 6314C3 Open	4, 6, 8	6317C3 / 6317C3 Open
315	2	6317C3 / 6317C3 Open	4, 6, 8	NU319 / 6319C3 Open
355	2	6319C3 / 6319C3 Open	4, 6, 8	NU322 / 6322C3 Open

note: "DE" means Drive End of the motor
"NDE" means Non-Drive End of motor

◆ *VOLTAGE AND FREQUENCIES:*

Motors are normally supplied with 50Hz frequency unless specified otherwise. 50Hz motor can be used at 60Hz. The following table indicates the coefficients required to obtain new performance levels with reference to difference voltages.

Motor wound for	Motor Feeding	Data Variation depending on voltage				
		KW (HP)	n1	A	Nom. Torque	Starting torque
220V 50Hz	220V 60Hz	100%	120%	100%	83%	83%
	260V 60Hz	115%	120%	100%	100%	100%
380V 50Hz	380V 60Hz	100%	120%	100%	83%	83%
	440V 60Hz	115%	120%	100%	100%	100%

CONSTRUCTION

OPERATING CONDITIONS (IEC 60034-1)

Service: This is the definition of the load to which the motor is subjected, inclusive of starting, electrical braking, rest and loadless times, as well as the sequence are duration of these.

TYPES OF SERVICE:

- S1 = continuous service
- S2 = limited duration service
- S3 = Periodic intermittent service
- S4 = Periodic intermittent service with starting phase
- S5 = Periodic intermittent service with electric braking
- S6 = Periodic intermittent service with intermittent load
- S7 = Periodic interrupted service with electric braking
- S8 = Periodic interrupted service with correlated variations of load and speed
- S9 = Service with non – periodic variations of load and speed

Motors built for general use, as described in this catalogue, are able to operate in **S1 service**.

ALTITUDE AND TEMPERATURE

The power rating shown refer to motors which normally operating conditions, motors characteristics will vary according to the coefficients shown in the chart below.

Ambient Temperature (°C)	% Nominal Power Rating
40	100%
45	96.5%
50	93%
55	90%
60	86.5%
70	79%

Altitude Above Sea Level in Metres	% Nominal Power Rating
1000 m	100%
1500 m	97%
2000 m	94.5%
2500 m	92%
3000 m	89%
4000 m	83.5%

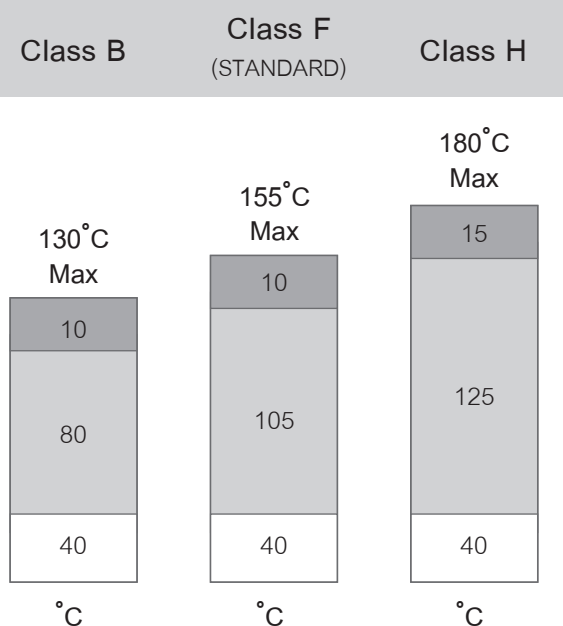
TERMINAL BOX AND CABLE GLAND:

Type	Size of conduit hole	Size of terminal box frame
63-80	M25 x 1.5	92 x 92 x 56
90-100		100 x 100 x 63
112-132	2-M32 x 1.5	116 x 107 x 72
160-180	2-M40 x 1.5	158 x 149 x 85
200-225	2-M50 x 1.5	207 x 188 x 108
250-280	2-M63 x 1.5	245 x 215 x 133
315		317 x 280 x 175
355		340 x 290 x 165
400	3-M72X2	592 x500 x403

OVER-TEMPERATURE AND INSULATION RATINGS:

Considering the full load operation of a motor at maximum ambient temperature of 40 °c,

The insulation rating is calculated according to the temperature increase of the motor itself. Normalized power of our motors are based on a temperature rise corresponding to class 'B' insulation, which our motors are constructed with class 'F' insulation



Thermal
 Permissible temperature in rise
 Maximum ambient temperature

PROTECTION LEVEL (IEC 60034-5)

Protection levels against accidental contact and/or against the entrance of foreign bodies and the entrance of water are expressed internationally by a code rating made up of a group of two letters and numbers;

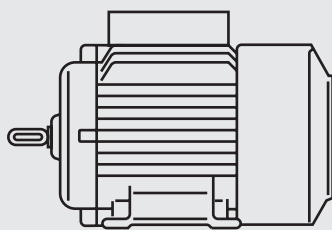
IP = Reference letters for type of protection;
 1st number = Protection level against solid objects;
 2nd number = Protection level against water

	1 st number Protected against	2 nd number Protected against
IP 21	Protected against solid objects of over 12 mm (e.g. finger)	water drop falling vertically must not cause damage
IP 22		water drop falling on the motor from a 15 degree angle direction must not cause damage
IP 23		water falling down from a 60 degree angle direction must not cause damage
IP 44	any contact tools, wire or similar objects of width or diameter exceeding 1mm. with the live or rotating parts inside the casing	water sprinkled on the machine from any direction must not cause damage
IP 45		water ejected by a nozzle on the machine from any direction must not cause damage
IP 54	Protected against dust (no deposits of harmful material)	water sprinkled on the machine from any direction must not cause damage
IP 55*		water ejected by a nozzle on the machine from any direction must not cause damage
IP 56		with troubled waters (sea), water inside the water must not reach damaging quantity
IP 57		damaging quantities of water can not penetrate into the motor, when the motor is under water. (The motor is under a specific pressure of depth, and the immersion lasts only for a limited lap on time)
IP 65	Totally protected against dust	water ejected by a nozzle on the machine from any direction must not cause damage
IP66		Protected against strong jets of water e.g. for use on shipdecks - limited ingress permitted
IP 67		Protected against the effects of temporary immersion between 15cm and 1m. Duration of test 30 minutes
IP 68		Protected against long periods of immersion under pressure

*The standard protecting of our motor is IP55, but models with different protection levels are often supplied.

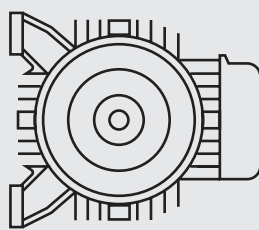
MOUNTING ARRANGEMENTS

IM B3/IM 1001



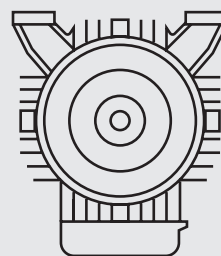
- 1) Foot mounted

IM B6/IM 1051



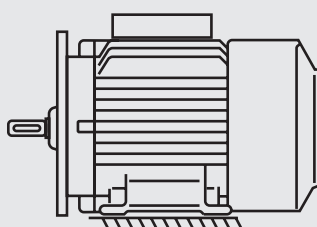
- 2) Foot wall mounted with feet on left side viewed from DE

IM B8/IM 1071



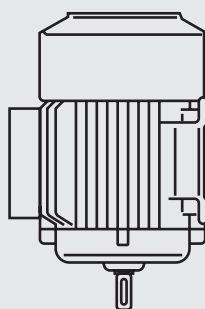
- 3) Ceiling mounted with feet above motor

IM B35/IM 2001



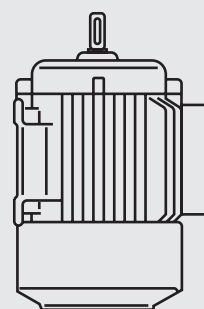
- 4) B5 type flange at DE, with feet

IM V5/IM 1011



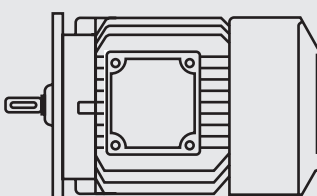
- 5) Vertical feet wall mounted shaft down

IM V6/IM 1031



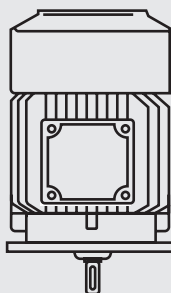
- 6) Vertical feet wall mounted shaft up

IM B5/IM 3001



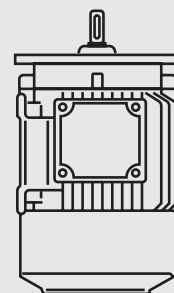
- 7) B5 type flange at DE, no feet

IM V1/IM 3011



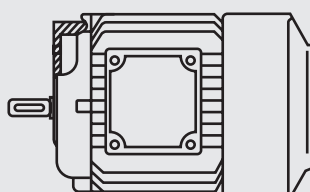
- 8) B5 type flange at DE, no feet shaft down

IM V3/IM 3031



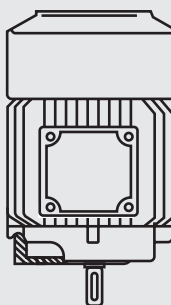
- 9) B5 type flange at DE, shaft up no feet

IM B14/IM 3601



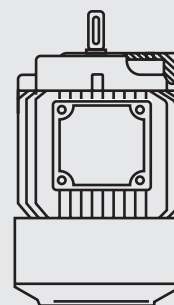
- 10) Face flange B14 at DE, no feet

IM V18/IM 3611



- 11) Face flange B14 at DE, shaft down, no feet

IM V19/IM 3631



- 12) Face flange B14 at DE, shaft up, no feet

SPECIFICATION

HIGH EFFIEIENCY MOTORS (IE2)

Frame Size	Rated Output		Rated Current	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kgm ²	Weight (kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
2 POLE 3000 RPM																
IF2-80A-2	0.75	1	1.71	2840	77.4	76.7	74.4	0.82	2.52	2.3	2.3	6.8	64	1.8	0.001	15
IF2-80B-2	1.1	1.5	2.40	2840	79.6	79.7	77.7	0.83	3.70	2.3	2.3	7.1	64	1.8	0.001	17
IF2-90S-2	1.5	2	3.17	2840	81.3	80.0	76.9	0.84	5.04	2.3	2.3	7.3	69	1.8	0.001	20
IF2-90L-2	2.2	3	4.49	2840	83.2	82.9	81.2	0.85	7.40	2.3	2.3	7.6	69	1.8	0.001	31
IF2-100L-2	3	4	5.88	2860	84.6	83.7	81.2	0.87	10.02	2.2	2.3	7.8	76	1.8	0.003	33
IF2-112M-2	4	5.5	7.65	2880	85.8	85.3	83.1	0.88	13.26	2.2	2.3	8.1	79	1.8	0.006	37
IF2-132SA-2	5.5	7.5	10.40	2900	87.0	85.9	83.6	0.88	18.11	2.2	2.3	8.2	81	1.8	0.011	57
IF2-132SB-2	7.5	10	13.80	2900	88.1	87.5	85.8	0.89	24.70	2.2	2.3	7.8	81	1.8	0.013	66
IF2-160MA-2	11	15	20	2930	89.4	89.3	87.5	0.89	35.85	2.2	2.3	7.9	83	2.8	0.038	99
IF2-160MB-2	15	20	26.9	2930	90.3	90.3	89.2	0.89	48.90	2.2	2.3	7.9	83	2.8	0.045	110
IF2-160L-2	18.5	25	33	2930	90.9	91.3	90.4	0.89	60.30	2.2	2.3	8.0	83	2.8	0.055	140
IF2-180M-2	22	30	39.1	2940	91.3	91.1	89.7	0.89	71.50	2.2	2.3	8.1	85	2.8	0.075	160
IF2-200LA-2	30	40	52.9	2950	92.0	92.2	90.2	0.89	97	2.0	2.3	7.5	86	2.8	0.124	229
IF2-200LB-2	37	50	64.9	2950	92.5	92.7	90.1	0.89	119.80	2.0	2.3	7.5	86	2.8	0.139	237
IF2-225M-2	45	60	78.6	2960	92.9	92.4	90.5	0.89	145.20	2.2	2.3	7.5	88	2.8	0.233	283
IF2-250M-2	55	75	95.7	2970	93.2	92.7	90.8	0.89	176.80	2.2	2.3	7.6	91	3.5	0.312	367
IF2-280S-2	75	100	130	2970	93.8	93.6	92.5	0.89	241.20	1.8	2.3	6.9	93	3.5	0.597	520
IF2-280M-2	90	125	155	2970	94.1	93.9	92.8	0.89	289.40	1.8	2.3	6.9	93	3.5	0.675	541
IF2-315S-2	110	150	187	2980	94.3	94.0	92.8	0.90	352.50	1.8	2.2	7.0	94	3.5	1.18	925
IF2-315M-2	132	175	224	2980	94.6	94.0	92.8	0.90	423	1.8	2.2	7.0	94	3.5	1.82	938
IF2-315LA-2	160	220	268	2980	94.8	94.1	92.9	0.91	512.80	1.8	2.2	7.1	94	3.5	2.08	1061
IF2-315LB-2	200	270	334	2980	95	94.9	94.5	0.91	640.90	1.8	2.2	7.1	94	3.5	2.47	1215
IF2-355MA-2	220	300	367	2980	95	94.9	94.5	0.91	705	1.6	2.2	7.1	102	3.5	2.90	1489
IF2-355MB-2	250	350	417	2980	95	94.9	94.5	0.91	801	1.6	2.2	7.1	102	3.5	4.00	1632
IF2-355LX-2	280	375	468	2980	95	94.9	94.5	0.91	897	1.6	2.2	7.2	102	3.5	4.40	1693
IF2-355LB-2	315	425	526	2980	95	94.9	94.5	0.91	1009	1.6	2.2	7.2	102	3.5	4.80	1856

SPECIFICATION

HIGH EFFIEIENCY MOTORS (IE2)

Frame Size	Rated Output		Rated Cur- rent	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Start- ing Cur- rent Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kgm ²	Weight (Kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
4 POLE 1500 RPM																
IF2-80A-4	0.55	0.75	1.49	1390	71	69.5	65.3	0.75	3.778	2.3	2.4	5.2	58	1.8	0.002	15
IF2-80B-4	0.75	1	1.79	1390	79.6	77.1	73.2	0.76	5.15	2.3	2.3	6.4	61	1.8	0.002	18
IF2-90S-4	1.1	1.5	2.53	1390	81.4	79.5	75.7	0.77	7.56	2.3	2.3	6.6	64	1.8	0.002	20
IF2-90L-4	1.5	2	3.35	1390	82.8	81.6	78.4	0.78	10.31	2.3	2.3	6.7	64	1.8	0.003	23
IF2-100LA-4	2.2	3	4.71	1410	84.3	83.4	81.2	0.80	14.90	2.3	2.3	7.3	69	1.8	0.005	35
IF2-100LB-4	3	4	6.25	1410	85.5	85	82.9	0.81	20.32	2.3	2.3	7.5	69	1.8	0.007	40
IF2-112M-4	4	5.5	8.23	1435	86.6	86.2	84.6	0.81	26.62	2.3	2.3	7.5	70	1.8	0.010	44
IF2-132S-4	5.5	7.5	11	1440	87.7	87.5	86.2	0.82	36.48	2.0	2.3	7.5	76	1.8	0.021	59
IF2-132M-4	7.5	10	14.7	1440	88.7	88.6	87.5	0.83	49.74	2.0	2.3	7.3	76	1.8	0.03	72
IF2-160M-4	11	15	21.3	1460	89.8	89.7	89.2	0.83	71.95	2.0	2.3	7.4	78	2.8	0.075	111
IF2-160L-4	15	20	28.4	1460	90.6	90.5	87.9	0.84	98.12	2.0	2.3	7.5	78	2.8	0.092	126
IF2-180M-4	18.5	25	34.4	1470	91.2	91.7	91	0.85	120.20	2.0	2.3	7.6	80	2.8	0.139	162
IF2-180L-4	22	30	40.8	1470	91.6	91.9	91.3	0.85	142.90	2.1	2.3	7.7	80	2.8	0.158	176
IF2-200L-4	30	40	55.2	1470	92.3	92.8	91.3	0.85	194.90	2.1	2.3	7.1	80	2.8	0.262	237
IF2-225S-4	37	50	67.0	1475	92.7	92.8	90.9	0.86	239.50	2.1	2.3	7.3	81	2.8	0.406	270
IF2-225M-4	45	60	81.1	1475	93.1	93.1	91.3	0.86	291.30	2.2	2.3	7.3	81	2.8	0.469	296
IF2-250M-4	55	75	98.7	1480	93.5	93.8	91.5	0.86	354.80	2.2	2.3	7.3	82	3.5	0.66	398
IF2-280S-4	75	100	132	1485	94	94.2	92.4	0.87	482.30	2.2	2.3	6.8	83	3.5	1.12	510
IF2-280M-4	90	125	157	1485	94.2	94.5	92.7	0.88	578.80	2.2	2.3	6.9	83	3.5	1.46	557
IF2-315S-4	110	150	189	1485	94.5	94.7	94.2	0.89	707.40	2.1	2.2	6.9	91	3.5	3.01	898
IF2-315M-4	132	175	226	1485	94.7	94.9	94.3	0.89	848.90	2.1	2.2	6.9	91	3.5	3.93	1101
IF2-315LA-4	160	220	270	1485	94.9	95.2	94.7	0.90	1029	2.1	2.2	6.9	91	3.5	4.33	1180
IF2-315LB-4	200	270	337	1485	95.1	95.3	94.8	0.90	1286	2.1	2.2	6.9	91	3.5	5.12	1335
IF2-355MA-4	220	300	371	1490	95.1	95.5	94.8	0.90	1410	2.0	2.2	6.9	97	3.5	6.30	1658
IF2-355MB-4	250	350	422	1490	95.1	95.5	94.8	0.90	1602	2.0	2.2	6.9	97	3.5	7.13	1720
IF2-355LX-4	280	375	472	1490	95.1	95.5	94.8	0.90	1795	2.0	2.2	6.9	97	3.5	7.26	1750
IF2-355LB-4	315	425	531	1490	95.1	95.5	94.8	0.90	2019	2.0	2.2	6.9	97	3.5	7.38	1920

SPECIFICATION

HIGH EFFICIENCY MOTORS (IE2)

Frame Size	Rated Output		Rated Current	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kg ^m	Weight (Kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
6 POLE 1000 RPM																
IF2-80MA-6	0.37	0.5	1.23	885	62	59.9	54.7	0.70	3.99	2.0	1.9	4.7	54	1.8	0.002	15
IF2-80MB-6	0.55	0.75	1.70	885	65	63.6	58.9	0.72	5.94	2.0	1.9	4.7	54	1.8	0.002	16
IF2-90S-6	0.75	1	1.98	910	75.9	73	67.7	0.72	7.87	2.0	2.1	5.8	64	1.8	0.003	20
IF2-90L-6	1.1	1.5	2.78	910	78.1	76.2	72.8	0.73	11.54	2.0	2.1	5.9	64	1.8	0.004	25
IF2-100LA-6	1.5	2	3.67	920	79.8	78.4	75.1	0.74	15.57	2.0	2.1	5.9	68	1.8	0.007	30
IF2-112M-6	2.2	3	5.25	935	81.8	80.4	77.4	0.74	22.47	2.0	2.1	6.2	72	1.8	0.014	40
IF2-132S-6	3	4	7.02	960	83.3	82.5	80.2	0.74	29.84	2.0	2.1	6.4	76	1.8	0.026	49
IF2-132MA-6	4	5.5	9.22	960	84.6	84.2	82.4	0.74	39.79	2.0	2.1	6.6	76	1.8	0.036	62
IF2-132MB-6	5.5	7.5	12.30	960	86	85.9	84.7	0.75	54.71	2.0	2.1	6.8	76	1.8	0.045	78
IF2-160M-6	7.5	10	15.9	970	87.2	87.1	84.3	0.78	73.84	2.0	2.1	6.8	80	2.8	0.083	99
IF2-160L-6	11	15	22.7	970	88.7	88.6	85	0.79	108.30	2.0	2.1	6.9	80	2.8	0.116	124
IF2-180L-6	15	20	29.8	970	89.7	89.3	86.7	0.81	147.70	2.0	2.1	7.3	79	2.8	0.207	169
IF2-200LA-6	18.5	25	36.5	980	90.4	90.5	88.2	0.81	180.30	2.0	2.1	7.2	79	2.8	0.315	213
IF2-200LB-6	22	30	42.6	980	90.9	90.9	88.5	0.82	214.40	2.0	2.1	7.3	79	2.8	0.36	219
IF2-225M-6	30	40	58.3	980	91.7	91.7	86.5	0.81	292.30	2.0	2.1	6.8	80	2.8	0.547	293
IF2-250M-6	37	50	69.0	980	92.2	92.2	88.1	0.84	360.50	2.0	2.1	7.0	82	3.5	0.834	367
IF2-280S-6	45	60	81.5	980	92.7	92.6	90.2	0.86	438.50	2.0	2.0	7.2	84	3.5	1.39	446
IF2-280M-6	55	75	99.2	980	93.1	93.1	92.4	0.86	535.90	2.0	2.0	7.2	84	3.5	1.65	506
IF2-315S-6	75	100	136	985	93.7	93.6	92.3	0.85	727	2.0	2.0	6.5	88	3.5	3.98	836
IF2-315M-6	90	125	165	985	94	94	92.6	0.84	872.60	2.0	2.0	6.6	88	3.5	4.65	918
IF2-315LA-6	110	150	198	985	94.3	94.3	92.9	0.85	1066	2.0	2.0	6.6	88	3.5	5.18	1020
IF2-315LB-6	132	175	234	985	94.6	94.6	93.1	0.86	1280	2.0	2.0	6.6	88	3.5	6.05	1250
IF2-355MA-6	160	220	280	990	94.8	94.8	93.5	0.87	1543	2.0	2.0	6.7	89	3.5	8.53	1550
IF2-355MC-6	200	270	349	990	95	95	93.8	0.87	1929	2.0	2.0	6.8	89	3.5	9.26	1749
IF2-355LA-6	220	300	384	990	95	95	93.8	0.87	2122	2.0	2.0	6.8	89	3.5	11.37	1795
IF2-355LB-6	250	350	437	990	95	95	93.8	0.87	2412	2.0	2.0	6.8	89	3.5	13	1918

SPECIFICATION

HIGH EFFICIENCY MOTORS (IE2)

Frame Size	Rated Output		Rated Current	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kgm ²	Weight (kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
8 POLE 750 RPM																
IF2-80A-8	0.18	0.25	0.84	645	51.0	50.4	44.8	0.61	2.67	1.9	1.8	3.3	52	1.8	0.002	15
IF2-80B-8	0.25	0.33	1.10	645	54.0	54.8	50.3	0.61	3.70	1.9	1.8	3.3	52	1.8	0.003	17
IF2-90S-8	0.37	0.50	1.41	670	62.0	60.2	54.3	0.61	5.27	1.9	1.8	4.0	56	1.8	0.005	21
IF2-90L-8	0.55	0.75	2.07	670	63.0	63.3	60.0	0.61	7.84	2.0	1.8	4.0	56	1.8	0.008	24
IF2-100LA-8	0.75	1	2.28	680	71.0	70.8	67.2	0.67	10.53	2.0	1.8	4.0	59	1.8	0.010	33
IF2-100LB-8	1.1	1.5	3.15	680	73.0	73.6	71.0	0.69	15.45	2.0	1.8	5.0	59	1.8	0.012	35
IF2-112M-8	1.5	2	4.18	690	75.0	74.9	71.9	0.69	20.76	2.0	1.8	5.0	61	1.8	0.016	50
IF2-132S-8	2.2	3	5.73	705	78.0	77.9	75.5	0.71	29.80	2.0	1.8	6.0	64	1.8	0.029	58
IF2-132M-8	3	4	7.51	705	79.0	79.7	78.4	0.73	40.64	2.0	1.8	6.0	64	1.8	0.037	65
IF2-160MA-8	4	5.5	9.76	720	81.0	81.5	80.4	0.73	53.06	2.0	1.9	6.0	68	2.8	0.070	89
IF2-160MB-8	5.5	7.5	12.93	720	83.0	83.6	82.8	0.74	72.95	2.0	2.0	6.0	68	2.8	0.088	109
IF2-160L-8	7.5	10	16.88	720	85.5	85.8	84.7	0.75	99.48	2.0	2.0	6.0	68	2.8	0.121	129
IF2-180L-8	11	15	23.9	730	87.5	87.6	86.5	0.76	143.90	2.0	2.0	6.6	70	2.8	0.203	173
IF2-200L-8	15	20	32.4	730	88.0	88.4	87.8	0.76	196.20	2.0	2.0	6.6	73	2.8	0.339	224
IF2-225S-8	18.5	25	39	730	90.0	90.1	89.3	0.76	242	2.0	1.9	6.6	73	2.8	0.491	260
IF2-225M-8	22	30	45	730	90.5	90.6	90.0	0.78	287.80	2.0	1.9	6.6	73	2.8	0.547	293
IF2-250M-8	30	40	60.2	735	91.0	91.3	90.8	0.79	389.80	2.0	1.9	6.6	75	3.5	0.834	381
IF2-280S-8	37	50	73.9	735	91.5	91.7	91.2	0.79	480.70	2.0	1.9	6.6	76	3.5	1.39	467
IF2-280M-8	45	60	89.4	735	92.0	92.2	91.8	0.79	584.70	2.0	1.8	6.6	76	3.5	1.65	504
IF2-315S-8	55	75	105	735	92.8	92.7	92.8	0.81	715.00	2.0	1.8	6.6	82	3.5	4.63	796
IF2-315M-8	75	100	143	735	93.0	93.0	93.1	0.81	974	2.0	1.8	6.6	82	3.5	6.05	979
IF2-315LA-8	90	125	169	735	93.8	93.8	93.1	0.82	1169	2.0	1.8	6.6	82	3.5	6.69	1040
IF2-315LB-8	110	150	206	735	94.0	93.8	92.8	0.82	1429	2.0	1.8	6.4	82	3.5	7.62	1230
IF2-355MA-8	132	175	248	740	93.7	93.5	93.5	0.82	1703	2.0	1.8	6.4	90	3.5	8.53	1530
IF2-355MB-8	160	220	298	740	94.2	94.1	93.2	0.82	2064	2.0	1.8	6.4	90	3.5	9.26	1632
IF2-355LB-8	200	270	368	740	94.5	94.4	93.7	0.83	2581	2.0	1.8	6.4	90	3.5	10.81	1918

SPECIFICATION

PREMIUM EFFIEIENCY MOTORS (IE3)

Frame Size	Rated Output		Rated Current	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kgm ²	Weight (kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
2 POLE 3000 RPM																
IF3-80A-2	0.75	1	1.64	2840	80.7	80.7	79.7	0.82	2.52	2.3	2.3	7.0	62	1.6	0.001	15
IF3-80B-2	1.1	1.5	2.31	2840	82.7	82.7	81.9	0.83	3.70	2.3	2.2	7.6	62	1.6	0.001	20
IF3-90S-2	1.5	2.	3.06	2840	84.2	84.2	84.1	0.84	5.04	2.3	2.2	7.9	67	1.6	0.002	24
IF3-90L-2	2.2	3	4.35	2840	85.9	86.0	84.8	0.85	7.40	2.3	2.2	7.9	67	1.6	0.003	32
IF3-100L-2	3	4	5.71	2860	87.1	87.1	86.5	0.87	10.02	2.3	2.2	8.5	74	1.6	0.005	36
IF3-112M-2	4	5.5	7.45	2880	88.1	88.1	88.1	0.88	13.26	2.3	2.2	8.5	77	1.6	0.009	48
IF3-132SA-2	5.5	7.5	10.10	2900	89.2	89.2	89.1	0.88	18.11	2.3	2.0	8.5	79	1.6	0.014	64
IF3-132SB-2	7.5	10	13.70	2900	90.1	90.1	89.9	0.88	24.70	2.3	2.0	8.5	79	1.6	0.017	69
IF3-160MA-2	11	15	19.60	2930	91.2	91.2	90.9	0.89	35.85	2.3	2.0	8.5	81	2.2	0.054	112
IF3-160MB-2	15	20	26.50	2930	91.9	91.9	91.7	0.89	48.89	2.3	2.0	8.5	81	2.2	0.062	122
IF3-160L-2	18.5	25	32.50	2930	92.4	92.4	92.2	0.89	60.30	2.3	2.0	8.5	81	2.2	0.079	142
IF3-180M-2	22	30	38.5	2940	92.7	92.8	92.4	0.89	71.46	2.3	2.0	8.5	83	2.2	0.102	179
IF3-200LA-2	30	40	52.1	2950	93.3	93.4	93.3	0.89	97.12	2.3	2.0	8.5	84	2.2	0.174	242
IF3-200LB-2	37	50	64	2950	93.7	93.7	93.6	0.89	119.78	2.3	2.0	8.5	84	2.2	0.199	247
IF3-225M-2	45	60	76.8	2960	94.0	94.2	94.0	0.90	145.19	2.3	2.0	8.0	86	2.2	0.304	325
IF3-250M-2	55	75	93.5	2965	94.3	94.3	94.2	0.90	177.15	2.3	2.0	8.0	89	2.2	0.442	421
IF3-280S-2	75	100	127	2970	94.7	94.7	94.3	0.90	241.16	2.3	1.8	7.5	91	2.2	0.817	598
IF3-280M-2	90	125	152	2970	95.0	95.1	94.8	0.90	289.39	2.3	1.8	7.5	91	2.2	0.919	621
IF3-315S-2	110	150	185	2975	95.2	95.3	95.2	0.90	353.11	2.3	1.8	7.5	92	2.8	1.97	950
IF3-315M-2	132	175	222	2975	95.4	95.5	95.4	0.90	423.73	2.3	1.8	7.5	92	2.8	2.36	1065
IF3-315LA-2	160	220	265	2975	95.6	95.6	95.4	0.91	513.61	2.3	1.8	7.5	92	2.8	2.49	1210
IF3-315LB-2	200	270	331	2975	95.8	95.8	95.5	0.91	642.02	2.2	1.8	7.5	92	2.8	2.79	1380
IF3-355MA-2	220	300	364	2980	95.8	95.8	95.3	0.91	705.03	2.2	1.6	7.5	100	2.8	5.09	1700
IF3-355MB-2	250	350	414	2980	95.8	95.8	95.3	0.91	801.17	2.2	1.6	7.5	100	2.8	5.09	1865
IF3-355LX-2	280	375	464	2980	95.8	95.8	95.3	0.91	897.32	2.2	1.6	7.5	100	2.8	6.06	1990
IF3-355LB-2	315	425	522	2980	95.8	95.8	95.3	0.91	1009	2.2	1.6	7.5	100	2.8	6.67	2120

SPECIFICATION

PREMIUM EFFIEIENCY MOTORS (IE3)

Frame Size	Rated Output		Rated Current	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kg ^m ²	Weight (kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
4 POLE 1500 RPM																
IF3-80A-4	0.55	0.75	1.31	1390	81.0	81.8	80.8	0.75	3.78	2.3	2.4	6.6	56	1.6	0.002	15
IF3-80B-4	0.75	1	1.75	1390	82.5	82.8	82.5	0.75	5.15	2.3	2.3	6.6	56	1.6	0.003	18
IF3-90S-4	1.1	1.5	2.48	1390	84.1	84.3	84.1	0.76	7.56	2.3	2.3	6.8	59	1.6	0.004	23
IF3-90L-4	1.5	2	3.3	1390	85.3	85.2	83.6	0.77	10.31	2.3	2.3	7.0	59	1.6	0.005	25
IF3-100LA-4	2.2	3	4.52	1410	86.7	86.8	86.7	0.81	14.90	2.3	2.3	7.6	64	1.6	0.011	37
IF3-100LB-4	3	4	6.02	1410	87.7	88.0	87.7	0.82	20.32	2.3	2.3	7.6	64	1.6	0.014	39
IF3-112M-4	4	5.5	7.95	1435	88.6	88.6	88.6	0.82	26.62	2.3	2.2	7.8	65	1.6	0.019	53
IF3-132S-4	5.5	7.5	10.7	1440	89.6	89.7	89.6	0.83	36.48	2.3	2.0	7.9	71	1.6	0.037	66
IF3-132M-4	7.5	10	14.3	1440	90.4	90.5	90.4	0.84	49.74	2.3	2.0	7.5	71	1.6	0.048	80
IF3-160M-4	11	15	20.4	1460	91.4	91.5	91.0	0.85	71.95	2.3	2.2	7.7	73	2.2	0.121	122
IF3-160L-4	15	20	27.3	1460	92.1	92.2	92.1	0.86	98.12	2.3	2.2	7.8	73	2.2	0.151	138
IF3-180M-4	18.5	25	33.5	1470	93.0	92.7	92.6	0.86	120.19	2.3	2.0	7.8	76	2.2	0.187	173
IF3-180L-4	22	30	39.7	1470	93.0	93.1	93.0	0.86	142.93	2.3	2.0	7.8	76	2.2	0.220	201
IF3-200L-4	30	40	53.8	1470	93.6	93.7	93.6	0.86	194.90	2.3	2.0	7.3	76	2.2	0.368	253
IF3-225S-4	37	50	66.1	1475	93.9	93.9	93.7	0.86	239.56	2.3	2.0	7.4	78	2.2	0.625	290
IF3-225M-4	45	60	80.2	1475	94.2	94.3	94.0	0.86	291.36	2.3	2.0	7.4	78	2.2	0.713	341
IF3-250M-4	55	75	97.6	1480	94.6	94.7	94.5	0.86	354.90	2.3	2.2	7.4	79	2.2	0.990	436
IF3-280S-4	75	100	129	1480	95.0	95.0	94.5	0.88	483.95	2.3	2.0	6.9	80	2.2	1.70	590
IF3-280M-4	90	125	155	1480	95.2	95.2	94.7	0.88	580.74	2.3	2.0	6.9	80	2.2	2.09	765
IF3-315S-4	110	150	187	1480	95.4	95.5	95.4	0.89	709.80	2.2	2.0	7.0	88	2.8	2.97	982
IF3-315M-4	132	175	224	1480	95.6	95.6	95.2	0.89	851.76	2.2	2.0	7.0	88	2.8	3.82	1171
IF3-315LA-4	160	220	271	1480	95.8	95.9	95.6	0.89	1032.43	2.2	2.0	7.1	88	2.8	4.49	1223
IF3-315LB-4	200	270	334	1480	96.0	96.1	95.9	0.90	1290.54	2.2	2.0	7.1	88	2.8	5.70	1334
IF3-355MA-4	220	300	368	1490	96.0	96.1	95.8	0.90	1410.07	2.2	2.0	7.1	95	2.8	9.50	1750
IF3-355MB-4	250	350	418	1490	96.0	96.0	95.8	0.90	1602.35	2.2	2.0	7.1	95	2.8	9.91	1806
IF3-355LX-4	280	375	468	1490	96.0	96.1	95.9	0.90	1794.63	2.2	2.0	7.1	95	2.8	11.36	1990
IF3-355LB-4	315	425	526	1490	96.0	96.0	95.7	0.90	2018.96	2.2	2.0	7.1	95	2.8	11.98	2070

SPECIFICATION

PREMIUM EFFIEIENCY MOTORS (IE3)

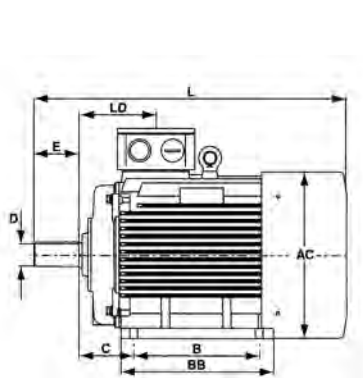
Frame Size	Rated Output		Rated Cur- rent	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kgm ²	Weight (Kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/ MN	IA/IN		(mm/s)		
6 POLE 1000 RPM																
IF3-80MA-6	0.37	0.5	1.04	885	73.5	73.8	73.5	0.70	3.99	1.9	2.0	6.0	54	1.6	0.003	18
IF3-80MB-6	0.55	0.75	1.43	885	77.2	77.4	77.2	0.72	5.94	1.9	2.1	6.0	54	1.6	0.004	20
IF3-90S-6	0.75	1	1.93	910	78.9	80.0	78.8	0.71	7.87	2.1	2.0	6.0	57	1.6	0.005	23
IF3-90L-6	1.1	1.5	2.69	910	81.0	81.2	79.4	0.73	11.54	2.1	2.0	6.0	57	1.6	0.007	30
IF3-100LA-6	1.5	2	3.60	920	82.5	82.6	81.8	0.73	15.57	2.1	2.0	6.5	61	1.6	0.014	40
IF3-112M-6	2.2	3	5.09	935	84.3	84.5	84.1	0.74	22.47	2.1	2.0	6.6	65	1.6	0.020	46
IF3-132S-6	3	4	6.84	960	85.6	85.7	85.5	0.74	29.84	2.1	2.0	6.8	69	1.6	0.053	61
IF3-132MA-6	4	5.5	8.99	960	86.8	86.9	85.2	0.74	39.79	2.1	2.0	6.8	69	1.6	0.069	66
IF3-132MB-6	5.5	7.5	12	960	88.0	88.1	87.8	0.75	54.71	2.1	2.0	7.0	69	1.6	0.078	85
IF3-160M-6	7.5	10	15.4	970	89.1	89.2	88.9	0.79	73.84	2.1	2.0	7.0	73	2.2	0.131	116
IF3-160L-6	11	15	22	970	90.3	90.4	90.3	0.80	108.30	2.1	2.0	7.2	73	2.2	0.178	140
IF3-180L-6	15	20	29.3	970	91.2	91.3	91.2	0.81	147.68	2.1	2.0	7.3	73	2.2	0.298	184
IF3-200LA-6	18.5	25	36	980	91.7	91.8	91.7	0.81	180.28	2.1	2.0	7.3	73	2.2	0.430	245
IF3-200LB-6	22	30	42.5	980	92.2	92.3	92.2	0.81	214.39	2.1	2.0	7.4	73	2.2	0.497	245
IF3-225M-6	30	40	56.2	980	92.9	92.9	92.7	0.83	292.35	2.1	2.0	6.9	74	2.2	0.809	330
IF3-250M-6	37	50	68.1	980	93.3	93.4	93.3	0.84	360.56	2.1	2.0	7.1	76	2.2	1.12	400
IF3-280S-6	45	60	81.6	980	93.7	93.8	93.4	0.85	438.52	2.0	2.0	7.3	78	2.2	1.94	510
IF3-280M-6	55	75	98.1	980	94.1	94.1	93.9	0.86	535.97	2.0	2.0	7.3	78	2.2	2.39	585
IF3-315S-6	75	100	136	985	94.6	94.6	94.2	0.84	727.16	2.0	2.0	6.6	83	2.8	3.81	924
IF3-315M-6	90	125	161	985	94.9	95.0	94.8	0.85	872.59	2.0	2.0	6.7	83	2.8	4.45	1015
IF3-315LA-6	110	150	196	985	95.1	95.1	94.7	0.85	1066.50	2.0	2.0	6.7	83	2.8	5.24	1134
IF3-315LB-6	132	175	232	985	95.4	95.4	95.2	0.86	1279.80	2.0	2.0	6.8	83	2.8	6.35	1239
IF3-355MA-6	160	220	281	990	95.6	95.6	95.2	0.86	1543.43	2.0	1.8	6.8	85	2.8	12.13	1793
IF3-355MC-6	200	270	346	990	95.8	95.9	95.5	0.87	1929.29	2.0	1.8	6.8	85	2.8	14.43	1843
IF3-355LA-6	220	300	381	990	95.8	95.8	95.4	0.87	2122.22	2.0	1.8	6.8	85	2.8	16.17	1965
IF3-355LB-6	250	350	433	990	95.8	95.8	95.4	0.87	2411.62	2.0	1.8	6.8	85	2.8	18.48	2048

SPECIFICATION

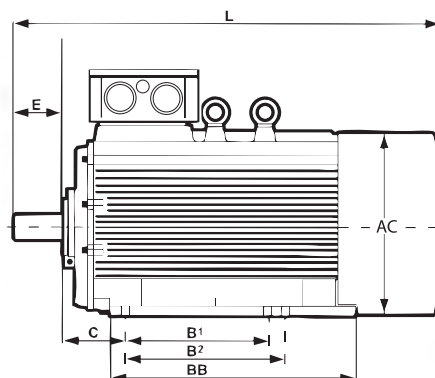
PREMIUM EFFICIENCY MOTORS (IE3)

Frame Size	Rated Output		Rated Current	Full Load Speed	Efficiency (%)			Power Factor (cosφ)	Full load Torque (Nm)	DOL Starting Torque Ratio	Pull Out Torque Ratio	DOL Starting Current Ratio	Noise Level dB (A)	Vibration Limit	Moment of Inertia (J) WK in Kgm ²	Weight (kg)
	KW	HP	FLC 400V (A)	RPM	100% Load	75% Load	50% Load	FL	MN	MA/MN	MK/MN	IA/IN		(mm/s)		
8 POLE 750 RPM																
IF3-90S-8	0.37	0.50	1.26	670	69.3	69.3	68.2	0.61	5.27	1.9	1.8	6.2	56	1.6	0.005	21
IF3-90L-8	0.55	0.75	1.78	670	73.0	73.0	72.5	0.61	7.84	2.0	1.8	5.9	56	1.6	0.006	24
IF3-100LA-8	0.75	1	2.15	680	75.0	75.2	74.5	0.67	10.53	2.0	1.8	6.2	59	1.6	0.013	33
IF3-100LB-8	1.1	1.5	2.96	680	77.7	77.9	77.5	0.69	15.45	2.0	1.8	6.2	59	1.6	0.016	35
IF3-112M-8	1.5	2	3.88	690	79.7	79.8	79.6	0.70	20.76	2.0	1.8	6.7	61	1.6	0.019	50
IF3-132S-8	2.2	3	5.46	705	81.9	82.0	81.7	0.71	29.80	2.0	1.8	6.7	64	1.6	0.041	60
IF3-132M-8	3	4	7.10	705	83.5	83.7	83.5	0.73	40.64	2.0	1.8	6.9	64	1.6	0.053	69
IF3-160MA-8	4	5.5	9.33	720	84.8	85	84.7	0.73	53.06	2.0	1.9	6.9	68	2.2	0.076	95
IF3-160MB-8	5.5	7.5	12.4	720	86.2	86.5	86.2	0.74	72.95	2.0	1.9	6.9	68	2.2	0.106	105
IF3-160L-8	7.5	10	16.5	720	87.3	87.6	87.3	0.75	99.48	2.0	1.9	6.6	68	2.2	0.144	122
IF3-180L-8	11	15	23.9	730	88.6	88.7	88.5	0.75	143.90	2.0	2.0	6.6	70	2.2	0.255	176
IF3-200L-8	15	20	31.8	730	89.6	89.6	89.2	0.76	196.23	2.0	2.0	6.8	73	2.2	0.430	218
IF3-225S-8	18.5	25	39.0	730	90.1	90.1	90.1	0.76	242.02	2.0	1.9	6.8	73	2.2	0.533	245
IF3-225M-8	22	30	44.9	730	90.6	90.6	90.6	0.78	287.81	2.0	1.9	7.0	73	2.2	0.699	350
IF3-250M-8	30	40	60.0	735	91.3	91.4	91.3	0.79	389.80	2.0	1.9	6.7	75	2.2	1.07	400
IF3-280S-8	37	50	73.6	735	91.8	91.8	91.8	0.79	480.75	2.0	1.9	6.7	76	2.2	1.72	462
IF3-280M-8	45	60	89.2	735	92.2	92.2	91.8	0.79	584.69	2.0	1.9	6.7	76	2.2	2.12	505
IF3-315S-8	55	75	106	735	92.5	92.6	92.3	0.81	714.63	2.0	1.8	6.8	82	2.8	4.32	805
IF3-315M-8	75	100	144	735	93.1	93.2	92.8	0.81	974.49	2.0	1.8	6.3	82	2.8	5.91	925
IF3-315LA-8	90	125	170	735	93.4	93.5	93.3	0.82	1169.39	2.0	1.8	6.4	82	2.8	7.04	1025
IF3-315LB-8	110	150	207	735	93.7	93.8	93.6	0.82	1429.25	2.0	1.8	6.4	82	2.8	8.26	1200
IF3-355MA-8	132	175	247	740	94.0	94.1	93.6	0.82	1703.51	2.0	1.8	6.4	89	2.8	11.55	1545
IF3-355MB-8	160	220	299	740	94.3	94.3	94.0	0.82	2064.86	2.0	1.8	6.4	89	2.8	12.56	1630
IF3-355LA-8	185	250	345	740	94.3	94.3	94.1	0.82	2387.50	2.0	1.8	6.4	89	2.8	15.30	1690
IF3-355LB-8	200	270	368	740	94.6	94.6	94.4	0.83	2581.08	2.0	1.8	6.4	89	2.8	17.03	1725

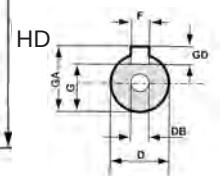
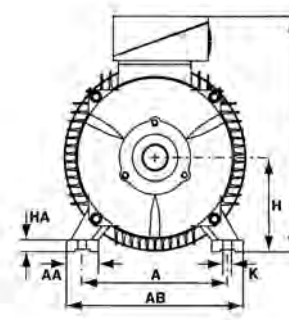
B3 B6, B7, B8, V5, V6



Frame 280 Down



Frame 315-355



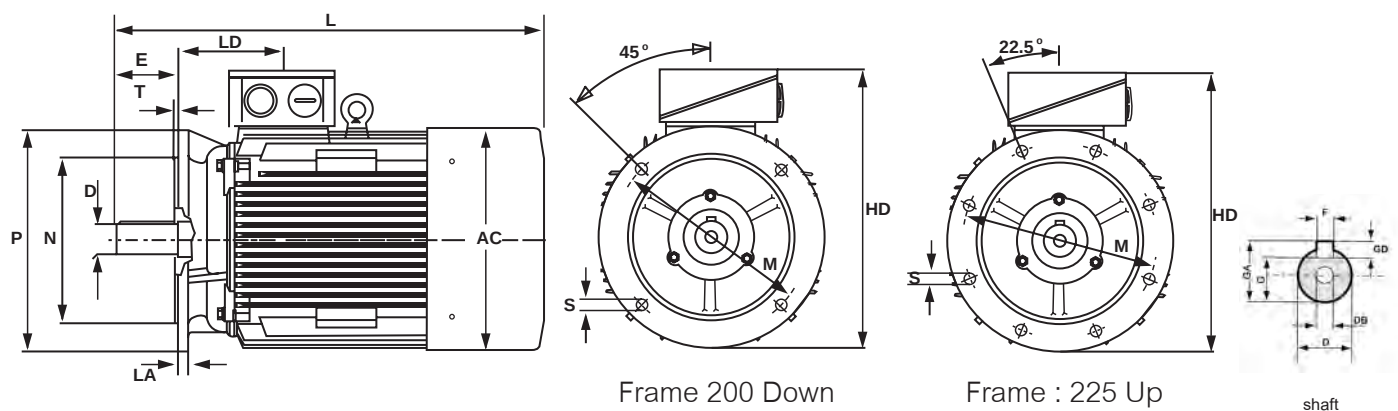
shaft

Frame Size	Poles	Mounting dimension (mm)					Shaft Dimension (mm)							Contour dimension (mm)									
		H	A	B	C	K	D	DB	E	F	G	GD	GA	AA	AB	AC	BB		HA	HD	L		
																	IE2	IE3			IE2	IE3	
80	2, 4, 6, 8	80	125	100	50	10	19 j6	M6	40	6	15.5	6	21.5	34	165	175	130	142	10	214	284	284	
90S		90	140	100	56	10	24 j6	M8	50	8	20	7	27	36	180	195	140	180	12	250	313	313	
90L		90	140	125	56	10	24 j6	M8	50	8	20	7	27	36	180	195	165	210	12	250	338	338	
100L		100	160	140	63	12	28 j6	M10	60	8	24	7	31	40	205	215	180	233	14	270	375	375	
112M		112	190	140	70	12	28 j6	M10	60	8	24	7	31	45	230	240	180	248	15	300	394	394	
132S		132	216	140	89	12	38 k6	M12	80	10	33	8	41	55	265	275	190	190	18	345	459	459	
132M		132	216	178	89	12	38 k6	M12	80	10	33	8	41	55	265	275	230	230	18	345	497	497	
160M		160	254	210	108	14.5	42 k6	M16	110	12	37	8	45	65	320	330	260	260	20	420	610	610	
160L		160	254	254	108	14.5	42 k6	M16	110	12	37	8	45	65	320	330	305	305	20	420	654	654	
180M		180	279	241	121	14.5	48 k6	M16	110	14	42.5	9	51.5	70	355	380	315	315	22	455	689	689	
180L		180	279	279	121	14.5	48 k6	M16	110	14	42.5	9	51.5	70	355	380	355	355	22	455	727	727	
200L		200	318	305	133	18.5	55 m6	M20	110	16	49	10	59	70	395	410	375	375	25	505	766	766	
225S	4, 8	225	356	286	149	18.5	60 m6	M20	140	18	53	11	64	75	435	460	375	375	28	555	813	813	
225M	2	225	356	311	149	18.5	55 m6	M20	110	16	49	10	59	75	435	460	400	400	28	555	808	808	
	4, 6, 8						60 m6		140	18	53	11	64								838	838	
250M	2	250	406	349	168	24	60 m6	M20	140	18	53	11	64	80	490	510	445	445	30	615	910	910	
	4, 6, 8						65 m6		140	18	58	11	69										
280S	2	280	457	368	190	24	65 m6	M20	140	18	58	11	69	85	550	580	490	490	35	680	970	970	
	4, 6, 8						75 m6		140	20	67.5	12	79.5								976	976	
280M	2	280	457	419	190	24	65 m6	M20	140	18	58	11	69	85	550	580	540	570	35	680	1021	1021	
	4, 6, 8						75 m6		140	20	67.5	12	79.5								1027	1027	
315S	2	315	508	406	216	28	65 m6	M20	140	18	58	11	69	120	630	645	570	760	45	845	1178	1178	
	4, 6, 8						80 m6		170	22	71	14	85								1213	1213	
				B1	B2																		
315M	2	315	508	457	508	216	28	65 m6	M20	140	18	58	11	69	120	630	645	680	680	45	845	1288	1288
	4, 6, 8							80 m6		170	22	71	14	80								1323	1323
315L	2	315	508	457	508	216	28	65 m6	M20	140	18	58	11	69	120	630	645	680	680	45	845	1288	1288
	4, 6, 8							80 m6		170	22	71	14	85								1323	1323
355M	2	355	610	560	630	254	28	75 m6	M24	140	20	67.5	12	79.5	116	730	710	760	760	52	1010	1504	1504
	4, 6, 8							100 m6		210	28	90	16	106								1574	1574
355L	2	355	610	560	630	254	28	75 m6	M24	140	20	67.5	12	79.5	116	730	710	760	760	52	1010	1504	1504
	4, 6, 8							100 m6		210	28	90	16	106								1574	1574

IF2 & IF3 Motors also use this table as referenced dimension.

DIMENSION

B5 V1, V3, FLANGE

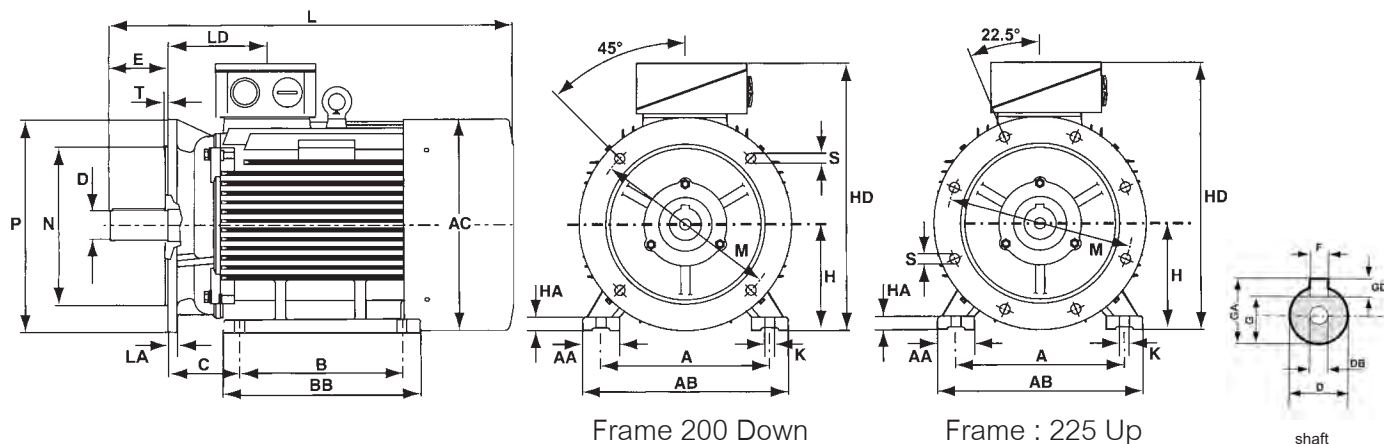


Frame Size	Poles	Mounting dimension (mm)						Shaft Dimension (mm)						Contour dimension (mm)				
		M	N	P	S	LA	T	D	E	F	G	GD	GA	AC	HD	LD	L	
																	IE2	IE3
80		165	130	200	12	12	3.5	19 j6	40	6	15.5	6	21.5	175	234	72	284	296
90S		165	130	200	12	12	3.5	24 j6	50	8	20	7	27	195	260	75	313	348
90L		165	130	200	12	12	3.5	24 j6	50	8	20	7	27	195	260	75	338	378
100L		215	180	250	14.5	14	4	28 j6	60	8	24	7	31	215	295	85	375	426
112M		215	180	250	14.5	14	4	28 j6	60	8	24	7	31	240	313	90	394	460
132S		265	230	300	14.5	14	4	38 k6	80	10	33	8	41	275	363	100	459	459
132M	2,4,6,8	265	230	300	14.5	14	4	38 k6	80	10	33	8	41	275	363	100	497	497
160M		300	250	350	18.5	15	5	42 k6	110	12	37	8	45	330	435	146	610	610
160L		300	250	350	18.5	15	5	42 k6	110	12	37	8	45	330	435	146	654	654
180M		300	250	350	18.5	17	5	48 k6	110	14	42.5	9	51.5	380	450	171	689	689
180L		300	250	350	18.5	17	5	48 k6	110	14	42.5	9	51.5	380	450	171	727	727
200L		350	300	400	18.5	20	5	55 m6	110	16	49	10	59	410	505	203	766	766
225S	4,8	400	350	450	18.5	20	5	60 m6	140	18	53	11	64	460	555	211	813	813
225M	2	400	350	450	18.5	20	5	55 m6	110	16	49	10	59	460	555	211	808	808
	4, 6, 8							60 m6	140	18	53	11	64		555		838	838
250M	2	500	450	550	18.5	22	5	60 m6	140	18	53	11	64	510	640	227	910	910
	4, 6, 8							65 m6	140	18	58	11	69		640		910	910
280S	2	500	450	550	18.5	22	5	65 m6	140	18	58	11	69	580	675	216	970	970
	4, 6, 8							75 m6	140	20	67.5	12	79.5		675		976	976
280M	2	500	450	550	18.5	22	5	65 m6	140	18	58	11	69	580	675	216	1,021	1,021
	4, 6, 8							75 m6	140	20	67.5	12	79.5		675		1,027	1,027
315S	2	600	550	660	24	22	6	65 m6	140	18	58	11	69	645	860	257	1,178	1,178
	4, 6, 8							80 m6	170	22	71	14	85		860		1,213	1,213
315M	2	600	550	660	24	22	6	65 m6	140	18	58	11	69	645	860	257	1,288	1,288
	4, 6, 8							80 m6	170	22	71	14	85		860		1,323	1,323
315L	2	600	550	660	24	22	6	65 m6	140	18	58	11	69	645	860	257	1,288	1,288
	4, 6, 8							80 m6	170	22	71	14	85		860		1,323	1,323
355M	2	740	680	800	24	25	6	75 M6	140	20	67.5	12	79.5	710	1055	284	1,504	1,504
	4, 6, 8							100 m6	210	28	90	16	106		1055		1,574	1,574
355L	2	740	680	800	24	25	6	75 M6	140	20	67.5	12	79.5	710	1055	284	1,504	1,504
	4, 6, 8							100 m6	210	28	90	16	106		1055		1,574	1,574

IF2 & IF3 Motors also use this table as referenced dimension.

DIMENSION

B3/B5 V15, V36 FOOT/FLANGE

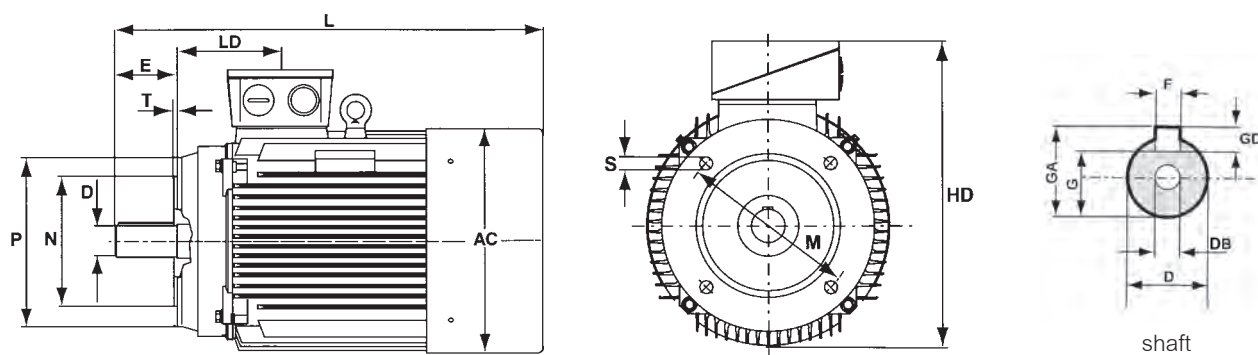


Frame Size	Poles	Mounting dimension (mm)											Shaft dimension (mm)							Contour dimension (mm)									
		H	A	B	C	K	M	N	P	S	LA	T	D	E	F	G	GD	GA	AA	AB	AC	BB	HA	HD	LD	L			
																										IE2	IE3		
80		80	125	100	50	10	165	130	200	12	12	3,5	19 j6	40	6	15.5	6	21.5	34	165	175	130	10	214	72	284	296		
90S	2,4,6,8	90	140	100	56	10	165	130	200	12	12	3,5	24 j6	50	8	20	7	27	36	180	195	140	12	250	75	313	348		
90L		90	140	125	56	10	165	130	200	12	12	3,5	24 j6	50	8	20	7	27	36	180	195	165	12	250	75	338	378		
100L		100	160	140	63	12	215	180	250	14.5	14	4	28 j6	60	8	24	7	31	40	205	215	180	14	270	85	375	426		
112M		112	190	140	70	12	215	180	250	14.5	14	4	28 j6	60	8	24	7	31	45	230	240	180	15	300	90	394	460		
132S		132	216	140	89	12	265	230	300	14.5	14	4	38 k6	80	10	33	8	41	55	265	275	190	18	345	100	459	459		
132M		132	216	178	89	12	265	230	300	14.5	14	4	38 k6	80	10	33	8	41	55	265	275	230	18	345	100	497	497		
160M		160	254	210	108	14.5	300	250	350	18.5	15	5	42 k6	110	12	37	8	45	65	320	330	260	20	420	146	610	610		
160L		160	254	254	108	14.5	300	250	350	18.5	15	5	42 k6	110	12	37	8	45	65	320	330	305	20	420	146	654	654		
180M		180	279	241	121	14.5	300	250	350	18.5	17	5	48 k6	110	14	42.5	9	51.5	70	355	380	315	22	455	171	689	689		
180L		180	279	279	121	14.5	300	250	350	18.5	17	5	48 k6	110	14	42.5	9	51.5	70	355	380	355	22	455	171	727	727		
200L		200	318	305	133	18.5	350	300	400	18.5	20	5	55 m6	110	16	49	10	59	70	395	410	375	25	505	203	766	766		
225S		4,8	225	356	286	149	18.5	400	350	450	18.5	20	5	60 m6	140	18	53	11	64	75	435	460	375	28	555	211	813	813	
225M	2	225	356	311	149	18.5	400	350	450	18.5	20	5	55 m6	110	16	49	10	59	75	435	460	400	28	555	211	808	808		
	4,6,8												60 m6	140	18	53	11	64								838	838		
250M	2	250	406	349	168	24	500	450	550	18.5	22	5	60 m6	140	18	53	11	64	80	490	510	445	30	615	227	910	910		
	4, 6, 8												65 m6	140	18	58	11	69								910	910		
280S	2	280	457	368	190	24	500	450	550	18.5	22	5	65 m6	140	18	58	11	69	85	550	580	490	35	680	216	970	970		
	4, 6, 8												75 m6	140	20	67.5	12	79.5								976	976		
280M	2	280	457	419	190	24	500	450	550	18.5	22	5	65 m6	140	18	58	11	69	85	550	580	540	35	680	216	1,021	1,021		
	4, 6, 8												75 m6	140	20	67.5	12	79.5								1,027	1,027		
315S	2	315	508	406	216	28	600	550	660	24	22	6	65 m6	140	18	58	11	69	120	630	645	570	45	845	257	1,178	1,178		
	4,6,8												80 m6	170	22	71	14	85								1,213	1,213		
315M	2	315	508	457	216	28	600	550	660	24	22	6	65 m6	140	18	58	11	69	120	630	645	680	45	845	257	1,288	1,288		
	4, 6, 8												80 m6	170	22	71	14	85								1,323	1,323		
315L	2	315	508	508	216	28	600	550	660	24	22	6	65 m6	140	18	58	11	69	120	630	645	680	45	845	257	1,288	1,288		
	4, 6, 8												80 m6	170	22	71	14	85								1,323	1,323		
355M	2	355	610	560	254	28	740	680	800	24	25	6	75 m6	140	20	67.5	12	79.5	116	730	710	760	52	1,010	284	1,054	1,054		
	4, 6, 8												100 m6	210	28	90	16	106								1,574	1,574		
355L	2	355	610	630	254	28	740	680	800	24	25	6	75 m6	140	20	67.5	12	79.5	116	730	710	760	52	1,010	284	1,504	1,504		
	4,6,8												100 m6	210	28	90	16	106								1 574	1 574		

IF2 & IF3 Motors also use this table as referenced dimension.

DIMENSION

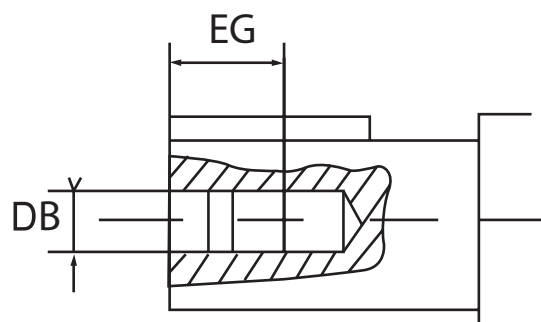
IM B14 V18, V19, SMALL FLANGE



Frame Size	Poles	Mounting dimension (mm)					Shaft dimension (mm)					Contour dimension (mm)				
		M	N	P	S	T	D	E	F	G	GD	GA	AC	HD	LD	L
																IE2 IE3
80		100	80	120	M6	3	19 j6	40	6	15.5	6	21.5	175	214	72	284 296
90S		115	95	140	M8	3	24 j6	50	8	20	7	27	195	250	75	313 348
90L		115	95	140	M8	3	24 j6	50	8	20	7	27	195	250	75	338 378
100L	2, 4, 6, 8	130	110	160	M8	3.5	28 j6	60	8	24	7	31	215	270	85	375 426
112M		130	110	160	M8	3.5	28 j6	60	8	24	7	31	240	300	90	394 460
132S		165	130	200	M10	3.5	38 k6	80	10	33	8	41	275	345	100	459 459
132M		165	130	200	M10	3.5	38 k6	80	10	33	8	41	275	345	100	497 497

TAPPED HOLES SIZE FOR DRIVE-END SHAFT

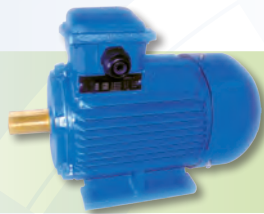
Frame size	DB x EG
63	M3 x 9
71	M4 x 12.5
80	M6 x 16
90	M8 x 19
100	M10 x 22
112	
132	M12 x 28
160	M16 x 36
180	
200	M20 x 39
225	M20 x 42
250	
280	
315	
355	M24 x 50





มอเตอร์ไฟฟ้าติด Forced Fan

สำหรับใช้งานกับอินเวอร์เตอร์
Forced Fan ระดับการป้องกัน IP54 380V สำหรับมอเตอร์ขนาด 0.5 ถึง 420 แรงม้า
มี Terminal Box แยกต่างหาก



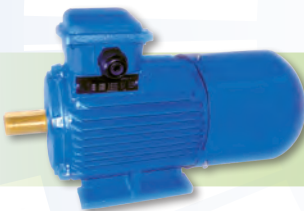
มอเตอร์ไฟฟ้า 2 สปีด หรือ 3 สปีด

แรงดันไฟมาตรฐาน 380-420 VAC 3Phase 50Hz
ชนิดหุ้มมิด IP55 Class F
2/8 โพล, 4/8 โพล, 6/8 โพล, 4/6 โพล, 2/4 โพล, 2/4/8 โพล (3 สปีด)
มีทั้งชนิดขาตั้ง หน้าแปลน B5 และ B14



มอเตอร์ไฟฟ้าสำหรับงานอุณหภูมิต่ำ

Class H Motor
เหมาะสำหรับใช้งานกับเตาอุตสาหกรรม
ที่มีอุณหภูมิสูง เช่น เตาอบไม้ย่างพรา เตาอบพีชผลการเกษตร เป็นต้น
มีให้เลือกทั้งแบบสปีดเดียวและสองสปีด



เบรกมอเตอร์

มีให้เลือกทั้งชนิด A.C. Brake และ D.C. Brake
มีให้เลือกทั้งชนิดจ่ายไฟแล้วเบรก หรือ จ่ายไฟแล้วหยุด
แรงดันไฟ 220-240/380-420 VAC 3Phase 50Hz



คู่มือมอเตอร์

ใช้งานกลางแจ้งได้เป็นอย่างดี
เสื่อเป็นเหล็กหล่อ ทนทานต่อน้ำหนัก และใช้งานได้นาน
มี Dimension หลากหลาย ตามความต้องการของผู้ใช้งาน
เคลือบสีฟอกซี ทนต่อการกัดกร่อนของสารเคมี ซิลสองชั้น



มอเตอร์เขย่า Vibrating Motor

เป็นมอเตอร์กันระเบิดในตัว



อื่นๆ อีกมากมาย อาทิเช่น

มอเตอร์ติด Encoder สำหรับวัดความเร็วรอบ
มอเตอร์ IP65 กันฝุ่นได้ดีเป็นพิเศษ
มอเตอร์ IP56 กันน้ำได้ดีเป็นพิเศษ
High Output Design แรงม้ามากขึ้น ในขนาดมอเตอร์เท่าเดิม
Special Voltage 200V 500V 3300V
มอเตอร์ที่ใช้ในอุณหภูมิเย็นจัด ลบ 40 องศา

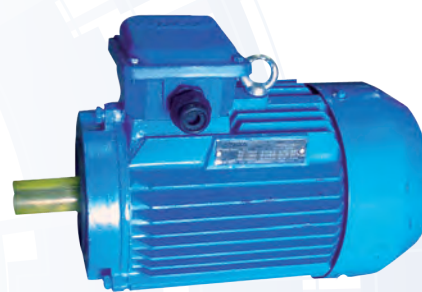
General Specification



FOOT MOUNTED



FLANGE MOUNTED



FACE MOUNTED

Special offer
Thermistor attached
(frame 160 up)

- Motor made to IEC standards
- Induction Motor, Totally Enclosed Fan cool (TEFC), Squirrel Cage
- High Efficiency Motors (IE2) & Premium Efficiency Motors (IE3)
- Voltage Specification at frequency 50Hz
3 KW And below, 220-240/380-420V
4 KW And above, 380-420/660-690V
- Voltage Specification at frequency 60Hz
3 KW And below 240-280/440-480V
4 KW And above 440-480V (delta connecting only)
- S1-Continuous duty
- Degree of protection IP55 (better protected from dust and water)
- Class F insulation with temp. rise class B
- Supply with Cable Gland
- Bearing "SKF" Brand or equal standard
- 18 Months Warranty
- ISO9001, ISO14001 Certified

IN/INE
MOTOR

1/2 HP to 420 HP
For General Purpose Application

Version 2568