Genuine ...

makes the difference

Electrim™

Three Phase Induction Motor

CONTENTS

RANGE INCLUDES

IEC Range

Three phase IEC low voltage motors-56 to 355 frames

Brake motors –Standard range from 63 to132 frames

Multi Speed motors
Large range of standard ratings
Special requirements available

Smoke Spill motors

High Voltage motors - 355 to 710 frames
3300 volts, 6600 volts, IP55
Foot mount or vertical flange mount
Slipring or Squirrel Cage

Vibrator motors
2,4,6 and 8 poles
Adjustable weights

Slipring (wound rotor) Low and high voltage motors
4,6 and 8 poles
Up to 5000 kW

High Efficiency Low Voltage Motors- 80 to 500 frames with Low Noise fans

Steel Mill Roller Table motors. A comprehensive range in frames 132 to 355

Fan controller motors. In 2 , 4 , 6 and 8 pole speeds for use in conjunction with a variable voltage supply

STANDARDS COMPLIANCE

Our Motors comply with current International Standards, such as :

- International Electrotechnical Commission - IEC 60034 and IEC 60072
- Australian Standards - AS 1359
- British Standards - BS 5000 and BS 4999
- The requirements for European "CE" marking
- Electric Motor design and manufacturing capabilities are accredited to ISO9001 by Lloyd's Register Quaity Assurance

ISO-9001

Designations and dimensions

IEC 60072 AS. 1359 - 10. BS 4999- 141. Specifies the standardised external dimensions and tolerance for frame 56 to 400.
This standard does not reference output power ratings to frame sizes.

Classification of types of encosure

IEC 60034 - 5. AS 1359 - 20. BS 4999 - 105 and AS 1939. These standards specify the Degrees of Protection of electrical equipment, commonly known as the "P" code.

Mounting arrangements and types of construction

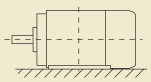
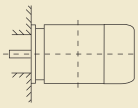
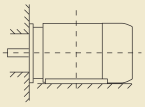
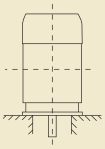
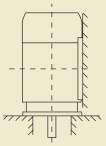
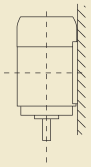
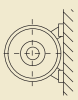
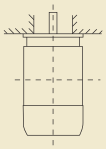
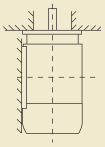
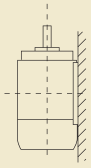
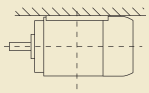
IEC 60034 - 7. AS 1359 - 107. BS EN60034 - 7. Assigns designations to standard mounting arrangements commonly known as the IM code.

DEGREE OF PROTECTION

Designation	First Numeral Protection against contact and ingress of foreign bodies. Protection against hazardous ~ Live parts and moving mechanical parts	Second Numeral Protection against water
	5. Ingree of dust is not totally prevented, but dust shall not interfere with the satisfactory operation of equipment. A probe of 1 mm diameter shall not penetrate the enclosure.	5. Water projected in jets against the enclo-sure from any direction will have no harmful effects
	6. No ingress of dust	6. Water projected in power jets shall have no harmful effects

IP55	Dust protected	Jetting Water
IP56	Dust protected	Powerful jetting
IP65	Dust Tight	Jetting Water
IP66	Dust Tight	Powerful jetting

All Electric motor are protected to IP55 as a minimum Higher levels of protection are available on request.

FOOT MTG HORIZ	FLANGE MTG	FOOT/FLANGE MTG	FOOT MTG VERT
B3 IM1001 H80 ~ 355 	B5 IM3001 H80 ~ 315 	B35 IM2001 H80 ~ 355 	
B6 IM1051 H80 ~ 160 	V1 IM3011 H80 ~ 355 	V15 IM2011 H80 ~ 160 	V5 IM1011 H80 ~ 160 
B7 IM1061 H80 ~ 160 	V3 IM3031 H80 ~ 160 	V36 IM2031 H80 ~ 160 	V6 IM1031 H80 ~ 160 
B8 IM1071 H80 ~ 160 			

GENERAL SPECIFICATIONS

Voltages/Frequencies

Standard voltages are 380V -420 50Hz and 440 -480 60Hz

Insulation

The components of the insulation system are selected so as to ensure good protection against chemically aggressive gases, vapours, dust, oil and air humidity.

All materials used for insulating the winding and winding ends correspond to insulating classes F or H according to IEC 60085:

- Enamel-insulated copper wires with temperature index 200 (Class H);
- Insulating sheet on polyester base (Class F);
- Impregnation with fenolic resins modified with polyester resins (Class H);

Limit temperature for insulating material according IEC 60085

Insulation Class	Limit Temperature (°C)
B	130
F	155
H	180

Temperature Rise

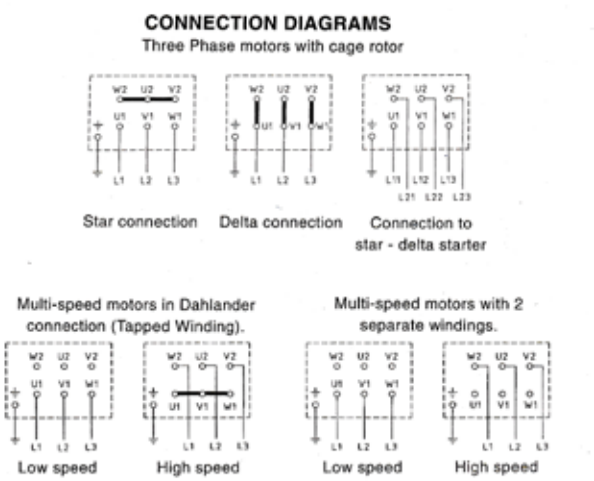
Standard single-speed continuous duty (S1) motors have temperature rise within class B limit. Motors with higher output and pole-changing motors normally have temperature rise within Class F limit.

Insulation Class	Max. Temperature Rise(°C)
B	80
F	105
H	125

Temperature rises specified at a reference ambient air temperature of 40°C.

PTC temperature sensor (thermistors):

It consists of 3 sensors connected in series embedded in the stator winding. Once reaching the operating temperature, the device quickly changes its resistance; it must be connected to a suitable releasing device (supplied on ,motos 11kw and above).



Duty Cycles

S1 Continuous Duty	Operation under constant load, lasting long enough to allow the machine to reach thermal equilibrium.
S2 Short-Time Duty	Operation under constant load, for a time too short to allow the machine to reach thermal equilibrium. Idle time of the machine is long enough to allow the machine to cooldown to ambient temperature. Standard duration of short-term operation:10, 30, 60 and 90 minutes.
S3 Intermittent Periodic Duty	Operation under repeated, constant load in specified cycles. Neither operating nor resting period are long enough to allow the motor to reach thermal equilibrium. The starting losses are small and do not essentially influence the temperature rise. The nominal values of relative starting time are 15, 25, 40, 60% at a daily 10-minute cycle.
S4 Intermittent Periodic Duty	Operation under repeated, constant load in specified cycles. The start of the motor influences the temperature rise.
S5 Intermittent Periodic Duty	Same as S4 operation, except that the electric braking of the machine has an essential influence on the temperature rise.
S6 Continuously Operation with Cyclic Load	Operation consisting of a continuous series of equal cycles. Each cycle is made up of noload and a constant load period. The cycle duration is not long enough to allow the machine to reach thermal equilibrium in one cycle. In order to define S6 operation, the relative starting time must be specified.
S7 Intermittent Periodic Duty with Starting and Braking	Uninterrupted operation with a series of constant loading and braking periods. The most demanding type of operation for the motor. In order to define this type of operation, the number of cycles per hour and the inertia constant must be specified.
S8 Intermittent Periodic Duty with Pole Changing	This type of operation only exists with pole amplitude modulated motors. In this case the definition of operation must contain the following data for each pole: - Number of starts per hour - Inertia constant - Relative operating period

DESIGN & CONSTRUCTION

The terminal box cover is specially casted to protect and stabilize the stator and rotor increasing the surface contact between the frame and iron core. This improved the rigidity of the frame,and motor vibration is reduced, thus increasing the bearings and the motor service life.Internally, the stator and rotor winding terminal were design to exit through an IP gland, preventing accidental dropping of connecting bolts and nuts into the windings of the motor. Safe motor operation is ensure and protected.

Within the groove design are drainage holes with IP plug at both ends for better operation in high humidity enviroment. The motor coil insulation is intact and protected.

The drainage groove inside can also be utilized for leads slot feed through internally and neatly connection at the terminal box such as leads from brakes, temperature devices for bearing/winding (PT100) and heaters. The leads are not exposed.

Design a new type of pressure casting mold for cast aluminum rotor production. The mold designed with exhaust structure can solve the exhaust's problem now in the common mold design. This can enhance the quality of the casting products.

DESCRIPTION & SPECIFICATION

Parts Description

1. Flinger D.E.
2. Outer bearing cap D.E. with oil seal
3. Bearing D.E.
4. Inner bearing cap D.E.
5. Endshield D.E.
6. Terminal Box
7. Terminal Box lid
8. Terminal Box adapter
9. Removable gland plate
10. External earth stud
11. Stator Lamination pack
12. Rotor Lamination pack
13. Stator frame
14. Inner bearing cap N.D.E.
15. Endshield N.D.E.
16. Fan
17. Fan Cowl
18. Bearing N.D.E.
19. Outer bearing cap N.D.E. with oil seal
20. Flinger N.D.E.

Specification

Standard Construction

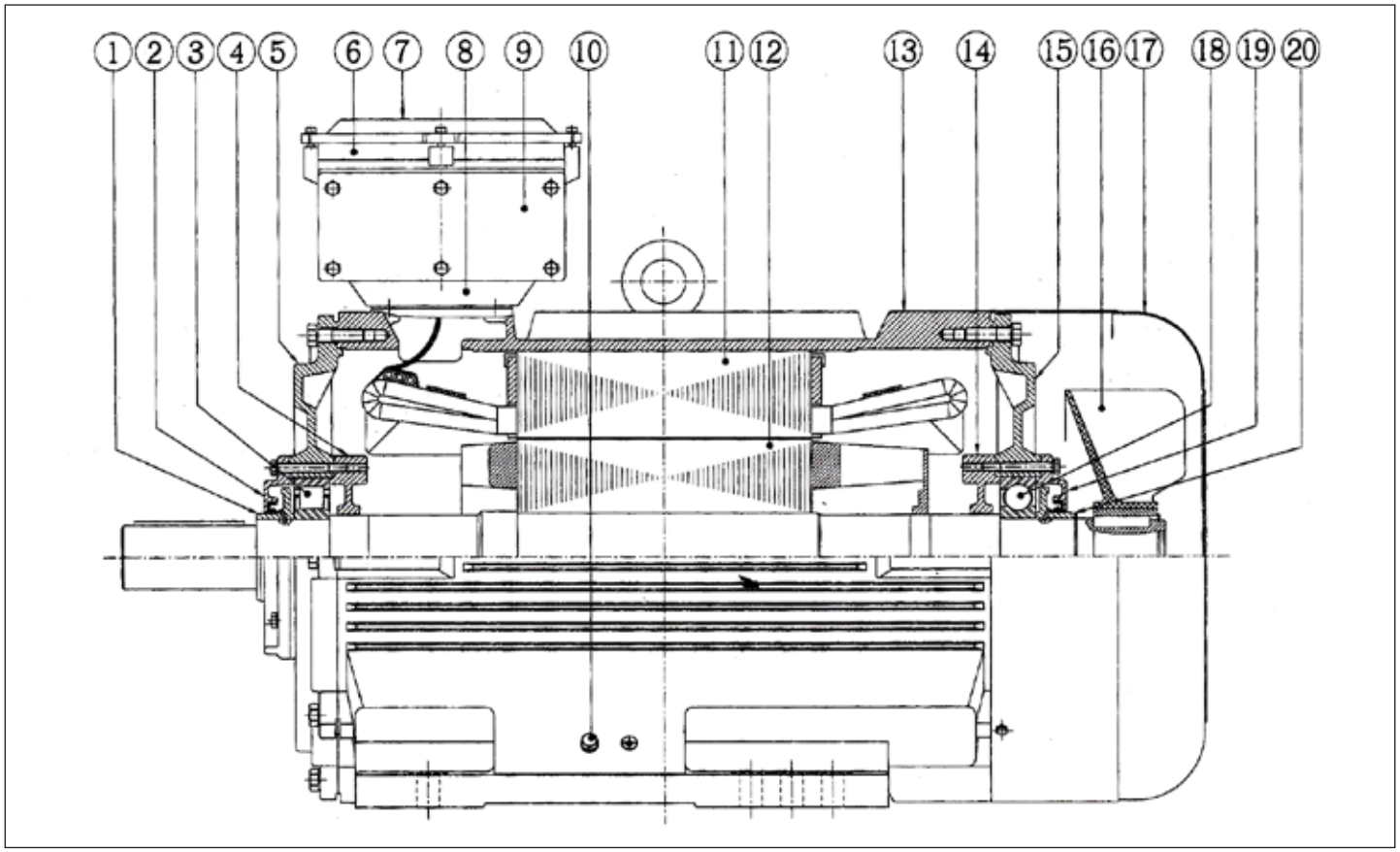
- **Cold rolled silicon steel DW600**
- Cast Iron Frame, Endshields.
- Cast Iron Terminal Box.
- Pressed Steel Fan Cowl.
- Cast Iron outer bearing caps with oils seals.
- FAG or Equivalent Bearings

Features

- Dimensions and ratings to IEC 72, AS 1359, BS 4999.
- IP55.
- Top mounted Terminal Box (SM315).
- Terminal Box rotates in 90 deg. increments.
- Drilled and tapped hole in D.E. of shaft.
- Cooling IC411

Mounting

- B3-Foot mounted.
- B3/B5-Foot and Flange mounted.
- V1-Flange mounted-vertical.



IE1 50HZ PERFORMANCE DATA

2-POLE 3000r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D801-2	0.75	2840	2.52	1.9	1.8	1.7	75.2	75.5	74.0	0.83	0.77	0.61	2.2	6.1	1.7	2.5	0.0008	67	16
1D802-2	1.1	2840	3.70	2.6	2.5	2.4	76.3	76.5	75.0	0.84	0.78	0.62	2.2	6.9	2.1	2.5	0.0009	67	17
1D90S-2	1.5	2850	5.03	3.5	3.3	3.2	78.6	78.7	77.2	0.84	0.78	0.62	2.2	7	2.8	3.2	0.0012	72	20
1D90L-2	2.2	2850	7.37	4.8	4.6	4.4	81.1	81.2	79.7	0.85	0.79	0.63	2.2	7	2.4	3	0.0014	72	25
1D100L-2	3	2880	9.95	6.3	6	5.8	82.8	82.8	81.3	0.87	0.81	0.65	2.2	7.5	3	3.7	0.0039	76	30
1D112M-2	4	2880	13.26	8.2	7.8	7.5	84.4	84.6	83.1	0.88	0.82	0.66	2.2	7.5	2.3	3.2	0.0055	77	38
1D132S1-2	5.5	2900	18.11	11	10.5	10.1	85.8	85.7	84.2	0.88	0.82	0.66	2.2	7.5	2.2	3.7	0.0109	80	57
1D132S2-2	7.5	2900	24.70	14.9	14.1	13.6	87.2	87.2	85.7	0.88	0.82	0.66	2.2	7.5	1.9	3.5	0.013	80	60
1D160M1-2	11	2930	35.85	21.2	20.1	19.4	88.5	88.5	87.0	0.89	0.83	0.67	2.2	7.5	1.9	3.1	0.028	86	100
1D160M2-2	15	2930	48.89	28.6	27.2	26.2	89.6	89.5	88.0	0.89	0.83	0.67	2.2	7.5	1.8	3.2	0.045	86	110
1D160L-2	18.5	2930	60.30	34.6	32.9	31.7	90.1	90.0	88.5	0.90	0.84	0.68	2.2	7.5	1.4	3.1	0.055	86	125
1D180M-2	22	2940	71.46	41	38.9	37.5	90.6	90.5	89.0	0.90	0.84	0.68	2.0	7.5	1.8	3.3	0.075	89	175
1D200L1-2	30	2950	97.12	55.4	52.6	50.7	91.5	91.4	89.9	0.90	0.84	0.68	2.0	7.5	1.7	2.7	0.124	92	225
1D200L2-2	37	2950	119.78	67.7	64.3	62	92.2	92.0	90.5	0.90	0.84	0.68	2.0	7.5	2.5	2.9	0.139	92	245
1D225M-2	45	2970	144.70	81.9	77.8	75	92.7	92.5	91.0	0.90	0.84	0.68	2.0	7.5	1.9	3.4	0.233	92	280
1D250M-2	55	2970	176.85	99.5	94.5	91.1	93.3	93.1	91.6	0.90	0.84	0.68	2.0	7.5	1.7	3.6	0.312	93	380
1D280S-2	75	2970	241.16	135	129	124	93.8	93.5	92.0	0.90	0.84	0.68	2.0	7	1.9	3.3	0.597	94	510
1D280M-2	90	2970	289.39	159	152	146	94.0	93.6	92.1	0.91	0.85	0.69	2.0	7.1	1.8	3.3	0.675	94	580
1D315S-2	110	2974	352.52	196	186	179	94.2	93.8	92.6	0.91	0.85	0.69	1.8	7.1	2	3	0.86	96	850
1D315M-2	132	2983	423.02	233	221	213	94.7	94.3	93.1	0.91	0.85	0.69	1.8	7.1	1.8	2.8	1.55	96	945
1D315L1-2	160	2978	512.75	282	268	258	94.8	94.4	93.2	0.91	0.85	0.69	1.8	7.1	2	3	1.76	99	1020
1D315L2-2	200	2971	640.94	347	330	318	95.0	94.4	93.2	0.92	0.86	0.70	1.8	7.1	1.5	3.1	2.02	99	1180
1D355M2-2	250	2984	801.17	433	411	396	95.4	95.0	93.8	0.92	0.86	0.70	1.6	7.1	1.5	2.5	3.56	103	1740
1D355L2-2	315	2986	1009.48	545	518	499	95.5	95.0	93.8	0.92	0.86	0.70	1.6	7.1	1.5	3	4.16	103	1900

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE1 50HZ PERFORMANCE DATA

4-POLE 1500r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D80M1-4	0.55	1410	3.8	1.6	1.5	1.5	71.1	71.6	69.0	0.75	0.71	0.60	2.4	5.2	1.9	2.5	0.002	58	17
1D80M2-4	0.75	1408	5.2	2.1	2	1.9	73.2	73.7	71.0	0.76	0.71	0.61	2.3	6.0	1.9	2.4	0.002	58	18
1D90S-4	1.1	1408	7.5	2.8	2.7	2.6	76.3	76.8	74.0	0.77	0.72	0.62	2.3	6.0	2	2.4	0.0021	61	20
1D90L-4	1.5	1402	10.2	3.7	3.5	3.4	78.7	79.3	76.3	0.78	0.73	0.62	2.3	6.0	2.3	2.5	0.003	61	23
1D100L1-4	2.2	1413	14.8	5.1	4.8	4.7	81.2	81.8	78.8	0.81	0.76	0.69	2.3	7.0	2.5	2.8	0.007	64	30
1D100L2-4	3	1426	20.2	6.7	6.4	6.1	82.7	83.3	80.2	0.82	0.77	0.70	2.3	7.0	2.4	3.1	0.007	64	35
1D112M-4	4	1427	26.5	8.8	8.4	8.1	84.4	85.0	81.9	0.82	0.78	0.70	2.3	7.0	2.5	3.1	0.0095	65	40
1D132S-4	5.5	1451	36.5	11.7	11.1	10.7	86.0	86.6	83.4	0.83	0.79	0.71	2.3	7.0	2.2	3.3	0.0214	71	60
1D132M-4	7.5	1445	49.8	15.6	14.8	14.3	87.2	87.8	84.6	0.84	0.80	0.71	2.3	7.0	2.3	3	0.0296	71	70
1D160M-4	11	1446	72	22.5	21.4	20.6	88.5	88.7	85.8	0.84	0.80	0.74	2.2	7.0	1.9	2.7	0.062	75	110
1D160L-4	15	1457	98.2	30	28.5	27.5	89.6	89.8	86.9	0.85	0.81	0.75	2.2	7.5	2	3.6	0.092	75	130
1D180M-4	18.5	1471	120.2	36.2	34.4	33.1	90.2	90.4	87.5	0.86	0.82	0.76	2.2	7.5	2	3.5	0.139	76	165
1D180L-4	22	1468	143	42.9	40.8	39.3	90.6	90.8	87.9	0.86	0.82	0.76	2.2	7.5	2.1	3.5	0.158	76	180
1D200L-4	30	1472	195	58	55.1	53.1	91.6	91.8	88.9	0.86	0.85	0.83	2.2	7.2	1.9	3.2	0.262	79	240
1D225S-4	37	1476	238.9	70	66.5	64.1	92.2	92.4	89.4	0.87	0.86	0.84	2.2	7.2	1.6	2.7	0.406	81	280
1D225M-4	45	1477	290.5	84.8	80.6	77.6	92.7	92.9	89.9	0.87	0.86	0.84	2.2	7.2	1.8	3.1	0.469	81	310
1D250M-4	55	1475	355.1	103	97.9	94.3	93.2	93.4	90.4	0.87	0.86	0.84	2.2	7.2	1.8	2.8	0.66	83	400
1D280S-4	75	1482	483.9	138	131	126	93.8	93.6	91.0	0.88	0.87	0.85	2.2	6.8	1.7	3	1.12	86	540
1D280M-4	90	1484	580.7	165	157	151	94.0	93.8	91.2	0.88	0.87	0.85	2.2	6.8	1.6	3.1	1.46	86	620
1D315S-4	110	1483	709.8	201	191	184	94.7	94.5	92.3	0.88	0.87	0.85	2.1	6.9	2.1	2.8	2.68	93	870
1D315M-4	132	1485	851.8	240	228	220	95.0	94.8	92.6	0.88	0.87	0.85	2.1	6.9	1.6	3.3	3.29	93	990
1D315L1-4	160	1487	1032	287	273	263	95.1	94.9	92.7	0.89	0.88	0.86	2.1	6.9	1.7	3.1	3.79	97	1050
1D315L2-4	200	1485	1411	382	341	329	95.2	94.9	92.8	0.89	0.88	0.86	2.1	6.9	1.9	2.7	4.49	97	1250
1D355M2-4	250	1485	1603	443	421	406	95.3	95.0	92.9	0.90	0.89	0.87	2.1	6.9	1.7	3.2	5.67	101	1750
1D355L2-4	315	1485	2020	558	530	511	95.3	95.0	92.9	0.90	0.89	0.87	2.1	7.1	1.5	3.3	6.66	101	1900

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE1 50HZ PERFORMANCE DATA

6-POLE 1000r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D80M1-6	0.37	918	4	1.3	1.2	1.2	62.2	62.6	60.3	0.70	0.66	0.56	1.90	4.70	1.6	1.9	0.0023	54	15
1D80M2-6	0.55	919	5.9	1.8	1.7	1.6	65.2	65.7	63.2	0.72	0.68	0.58	1.90	4.70	1.8	2	0.003	54	17
1D90S-6	0.75	920	7.9	2.3	2.2	2.1	69.1	69.6	67.0	0.72	0.68	0.58	2.00	4.70	1.9	2.3	0.0029	57	20
1D90L-6	1.1	919	11.5	3.2	3	2.9	72.2	72.7	70.0	0.73	0.69	0.58	2.00	5.30	2.1	2.5	0.0035	57	23
1D100L-6	1.5	931	15.6	4	3.8	3.7	76.2	76.7	73.9	0.75	0.71	0.64	2.00	5.50	2.3	2.8	0.0069	61	30
1D112M-6	2.2	935	22.4	5.6	5.3	5.1	79.1	79.7	76.7	0.76	0.71	0.65	2.00	5.50	1.7	2.2	0.0138	65	38
1D132S-6	3	963	29.9	7.4	7	6.8	81.3	81.9	78.9	0.76	0.72	0.65	2.10	6.50	1.6	2.9	0.0286	69	55
1D132M1-6	4	963	39.8	9.8	9.3	9	82.2	82.8	79.7	0.76	0.72	0.65	2.10	6.50	1.8	3.1	0.036	69	63
1D132M2-6	5.5	967	54.7	12.9	12.3	11.8	84.1	84.7	81.6	0.77	0.73	0.65	2.10	6.50	1.9	2.4	0.045	69	70
1D160M-6	7.5	962	73.9	17.2	16.3	15.7	86.3	86.5	83.7	0.77	0.73	0.68	2.00	6.50	1.7	2.4	0.088	73	105
1D160L-6	11	965	108.3	24.5	23.3	22.4	87.7	87.9	85.1	0.78	0.74	0.69	2.00	6.50	1.6	2.3	0.116	73	120
1D180L-6	15	971	147.7	31.6	30	28.9	89.2	89.4	86.5	0.81	0.77	0.71	2.00	7.00	1.5	2	0.207	73	175
1D200L1-6	18.5	979	182.2	38.6	36.7	35.3	90.1	90.3	87.4	0.81	0.77	0.71	2.10	7.00	1.7	3.1	0.315	76	220
1D200L2-6	22	974	216.7	44.6	42.4	40.8	90.2	90.4	87.5	0.83	0.81	0.76	2.00	7.00	1.4	2.7	0.36	76	235
1D225M-6	30	983	292.5	59.2	56.2	54.2	91.6	91.8	88.9	0.84	0.81	0.77	2.00	7.00	1.4	1.8	0.547	76	300
1D250M-6	37	980	360.7	71	67.5	65	92.1	92.3	89.3	0.86	0.83	0.79	2.10	7.00	1.8	2.8	0.834	78	370
1D280S-6	45	987	438.7	85.8	81.5	78.6	92.6	92.8	89.8	0.86	0.83	0.79	2.10	7.00	1.6	3.4	1.39	80	480
1D280M-6	55	984	536.2	105	99.8	96.1	93	92.8	90.2	0.86	0.83	0.79	2.10	7.00	1.5	3.2	1.65	80	535
1D315S-6	75	986	723.8	142	135	130	93.7	93.5	90.9	0.86	0.83	0.79	2.00	6.70	1.8	3	3.21	85	790
1D315M-6	90	985	868.6	170	162	156	94	93.8	91.7	0.86	0.83	0.79	2.00	6.70	1.5	3.3	4.28	85	880
1D315L1-6	110	987	1061.6	207	197	190	94.1	93.9	91.7	0.86	0.83	0.79	2.00	6.70	1.7	3.1	5.45	85	997
1D315L2-6	132	990	1274	245	233	224	94.3	94.1	91.9	0.87	0.84	0.80	2.00	6.70	1.4	2.9	6.12	85	1100
1D355M1-6	160	991	1544	291	276	266	94.7	94.4	92.3	0.88	0.85	0.81	1.90	6.70	1.3	2.5	8.85	92	1400
1D355M2-6	200	990	1930	364	346	333	94.7	94.4	92.3	0.88	0.85	0.81	1.90	6.70	1.5	2.4	9.55	92	1750
1D355L-6	250	991	2413	456	433	418	94.7	94.4	92.3	0.88	0.85	0.81	1.90	6.70	1.4	2.4	10.63	92	1950

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE1 50HZ PERFORMANCE DATA

8-POLE 750r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D80M1-8	0.18	680	2.8	0.9	0.9	0.8	51.1	51.5	49.6	0.61	0.57	0.49	1.8	3.30	2	2.3	0.002	52	15
1D80M2-8	0.25	694	3.7	1.2	1.1	1.1	54.2	54.6	52.6	0.61	0.57	0.49	1.8	3.30	2	2.4	0.003	52	17
1D90S-8	0.37	703	5.4	1.5	1.4	1.4	62.2	62.6	60.3	0.61	0.57	0.49	1.8	4.00	1.9	2.5	0.004	56	20
1D90L-8	0.55	700	8	2.2	2.1	2	63.1	63.5	61.2	0.61	0.57	0.49	1.8	4.00	1.9	2.4	0.004	56	23
1D100L1-8	0.75	697	10.4	2.4	2.3	2.2	70.2	70.7	68.1	0.67	0.63	0.57	1.8	4.00	1.9	2.3	0.008	59	30
1D100L2-8	1.1	691	15.2	3.4	3.2	3.1	72.1	72.6	69.9	0.69	0.65	0.59	1.8	5.00	2	2.4	0.01	59	35
1D112M-8	1.5	694	20.8	4.4	4.2	4	74.2	74.7	72.0	0.70	0.67	0.60	1.8	5.00	2.2	2.6	0.017	61	40
1D132S-8	2.2	690	29.6	5.9	5.6	5.4	79.2	79.8	76.8	0.71	0.67	0.60	1.8	6.00	1.9	2.5	0.017	64	52
1D132M-8	3	704	40.4	7.8	7.4	7.1	80.2	80.8	77.8	0.73	0.69	0.62	1.8	6.00	2.1	2.6	0.04	64	60
1D160M1-8	4	713	53.1	10.2	9.7	9.3	81.1	81.3	78.7	0.73	0.69	0.64	1.9	6.00	1.7	2.3	0.075	68	90
1D160M2-8	5.5	718	73	13.6	12.9	12.5	83.2	83.4	80.7	0.74	0.7	0.65	1.9	6.00	2	2.9	0.093	68	105
1D160L-8	7.5	719	99.5	17.7	16.8	16.2	85.7	85.9	83.1	0.75	0.71	0.66	1.9	6.00	2	2.8	0.126	68	120
1D180L-8	11	717	144	25.4	24.1	23.3	87.6	87.8	85.0	0.75	0.71	0.66	2.0	6.50	1.9	2.8	0.203	70	150
1D200L-8	15	729	196.3	34	32.3	31.1	88.2	88.4	85.6	0.76	0.74	0.67	2.0	6.60	1.8	2.6	0.339	73	215
1D225S-8	18.5	731	242.1	41	39	37.5	90.1	90.3	87.4	0.76	0.74	0.67	1.9	6.6	1.7	3	0.491	73	265
1D225M-8	22	729	284	47.2	44.8	43.2	90.6	90.8	87.9	0.78	0.76	0.69	1.9	6.6	1.8	2.7	0.547	73	295
1D250M-8	30	734	387.3	63.3	60.1	58	91.2	91.4	88.5	0.79	0.77	0.70	1.9	6.5	2.1	2.5	0.83	75	380
1D280S-8	37	737	477.7	77.5	73.6	71	91.6	91.4	88.9	0.79	0.77	0.70	1.9	6.6	1.8	3.8	1.39	76	485
1D280M-8	45	737	581	94.1	89.4	86.2	92.1	91.9	89.3	0.79	0.77	0.70	1.9	6.6	2	3	1.65	76	570
1D315S-8	55	738	710.1	111	106	102	92.9	92.7	90.6	0.81	0.79	0.71	1.8	6.6	1.6	2.5	3.65	82	750
1D315M-8	75	740	968.3	150	143	137	93.6	93.4	91.3	0.81	0.79	0.71	1.8	6.2	1.3	2.7	5.58	82	810
1D315L1-8	90	739	1162	177	168	162	94.0	93.8	91.7	0.82	0.80	0.72	1.8	6.4	1.7	2.6	6.37	82	1000
1D315L2-8	110	739	1420	216	205	198	94.1	93.8	91.7	0.82	0.80	0.72	1.8	6.4	2	2.5	7.23	82	1180
1D355M1-8	132	743	1704	259	246	237	94.2	93.9	91.8	0.82	0.80	0.72	1.8	6.4	1	2.2	10.55	90	1500
1D355M2-8	160	743	2066	314	298	288	94.3	94.0	91.9	0.82	0.80	0.72	1.8	6.4	1.1	2.2	11.73	90	1800
1D355L-8	200	743	2582	385	366	353	94.7	94.4	92.3	0.83	0.81	0.73	1.8	6.4	1.2	3.2	12.86	90	1900

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE1 60HZ PERFORMANCE DATA

2-POLE 3600r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D801-2	0.75	3448	2.10	3.2	1.6	1.5	75.2	75.5	74.0	0.83	0.77	0.61	2.2	6.1	1.7	2.6	0.0008	74	16
1D802-2	1.1	3446	3.08	4.5	2.25	2.2	76.3	76.5	75.0	0.84	0.78	0.62	2.2	6.9	2.2	2.6	0.0009	74	17
1D90S-2	1.5	3445	4.19	6	3	2.9	78.6	78.7	77.2	0.84	0.78	0.62	2.2	7	2.9	3.3	0.0012	79	20
1D90L-2	2.2	3884	6.14	8.4	4.2	4	81.1	81.2	79.7	0.85	0.79	0.63	2.2	7	2.5	3.1	0.0014	79	25
1D100L-2	3	3453	8.29	10.9	5.45	5.2	82.8	82.8	81.3	0.87	0.81	0.65	2.2	7.5	3.1	3.8	0.0039	84	30
1D112M-2	4	3469	11.05	14.1	7.05	6.7	84.4	84.6	83.1	0.88	0.82	0.66	2.2	7.5	2.4	3.3	0.0055	85	38
1D132S1-2	5.5	3491	15.09	19.1	9.55	9.1	85.8	85.7	84.2	0.88	0.82	0.66	2.2	7.5	2.7	3.3	0.007	88	57
1D132S2-2	7.5	3512	20.58	25.7	12.85	12.3	87.2	87.2	85.7	0.88	0.82	0.66	2.2	7.5	2.3	3.6	0.013	88	60
1D160M1-2	11	3502	29.88	36.7	18.35	17.6	88.5	88.5	87.0	0.89	0.83	0.67	2.2	7.5	1.9	3.2	0.038	95	100
1D160M2-2	15	3533	40.74	49.4	24.7	23.6	89.6	89.5	88.0	0.89	0.83	0.67	2.2	7.5	2.0	3.3	0.045	95	110
1D160L-2	18.5	3535	50.25	59.9	29.95	28.6	90.1	90.0	88.5	0.90	0.84	0.68	2.2	7.5	1.8	3.2	0.055	95	125
1D180M-2	22	3546	59.55	70.8	35.4	33.9	90.6	90.5	89.0	0.90	0.84	0.68	2.0	7.5	1.4	3.4	0.075	98	175
1D200L1-2	30	3546	80.93	95.6	47.8	45.7	91.5	91.4	89.9	0.90	0.84	0.68	2.0	7.5	1.8	2.8	0.124	101	225
1D200L2-2	37	3552	99.82	117	58.5	56	92.2	92.0	90.5	0.90	0.84	0.68	2.0	7.5	1.7	3.0	0.139	101	245
1D225M-2	45	3554	120.58	142	70.8	67.7	92.7	92.5	91.0	0.90	0.84	0.68	2.0	7.5	2.6	3.5	0.233	101	280
1D250M-2	55	3557	147.38	172	85.95	82.2	93.3	93.1	91.6	0.90	0.84	0.68	2.0	7.5	1.9	3.7	0.312	102	380
1D280S-2	75	3574	200.97	233	117	112	93.8	93.5	92.0	0.90	0.84	0.68	2.0	7	1.7	3.4	0.597	103	510
1D280M-2	90	3571	241.16	276	138	132	94.0	93.6	92.1	0.91	0.85	0.69	2.0	7.1	1.9	3.4	0.675	103	580
1D315S-2	110	3570	293.76	337	168	161	94.2	93.8	92.6	0.91	0.85	0.69	1.8	7.1	2	2.8	1.18	106	850
1D315M-2	132	3583	352.52	402	201	192	94.7	94.3	93.1	0.91	0.85	0.69	1.8	7.1	2	2.9	1.55	106	945
1D315L1-2	160	3579	427.29	487	243	233	94.8	94.4	93.2	0.91	0.85	0.69	1.8	7.1	1.8	3.1	1.76	109	1020
1D315L2-2	200	3572	534.12	601	300	287	95.0	94.4	93.2	0.92	0.86	0.70	1.8	7.1	2	3.2	2.02	109	1180
1D355M2-2	250	3584	667.65	748	374	358	95.4	95.0	93.8	0.92	0.86	0.70	1.6	7.1	1.5	2.6	3.56	113	1740
1D355L2-2	315	3586	841.23	941	470	450	95.5	95.0	93.8	0.92	0.86	0.70	1.6	7.1	1.5	3.1	4.16	113	1900

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE1 60HZ PERFORMANCE DATA

4-POLE 1800r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D80M1-4	0.55	1712	3.15	2.7	1.4	1.3	71.1	71.6	69.0	0.75	0.71	0.60	2.4	5.2	1.9	2.6	0.002	64	58
1D80M2-4	0.75	1710	4.29	3.5	1.8	1.7	73.2	73.7	71.0	0.76	0.71	0.61	2.3	6.0	1.9	2.5	0.002	64	58
1D90S-4	1.1	1710	6.25	4.9	2.5	2.3	76.3	76.8	74.0	0.77	0.72	0.62	2.3	6.0	2.0	2.5	0.0021	67	61
1D90L-4	1.5	1704	8.53	6.4	3.2	3.1	78.7	79.3	76.3	0.78	0.73	0.62	2.3	6.0	2.4	2.6	0.003	67	61
1D100L1-4	2.2	1715	12.33	8.8	4.4	4.2	81.2	81.8	78.8	0.81	0.76	0.69	2.3	7.0	2.6	2.9	0.007	70	64
1D100L2-4	3	1728	16.81	11.6	5.8	5.5	82.7	83.3	80.2	0.82	0.77	0.70	2.3	7.0	2.5	3.2	0.007	70	64
1D112M-4	4	1729	22.11	15.2	7.6	7.3	84.4	85.0	81.9	0.82	0.78	0.70	2.3	7.0	2.6	3.2	0.0095	72	65
1D132S-4	5.5	1752	30.4	20.2	10.1	9.7	86.0	86.6	83.4	0.83	0.79	0.71	2.3	7.0	2.3	3.4	0.0214	78	71
1D132M-4	7.5	1747	41.45	26.9	13.5	12.9	87.2	87.8	84.6	0.84	0.80	0.71	2.3	7.0	2.4	3.1	0.0296	78	71
1D160M-4	11	1747	59.96	38.8	19.4	18.6	88.5	88.7	85.8	0.84	0.80	0.74	2.2	7.0	1.9	2.8	0.062	83	75
1D160L-4	15	1758	81.76	51.7	25.9	24.7	89.6	89.8	86.9	0.85	0.81	0.75	2.2	7.5	2.0	3.7	0.092	83	75
1D180M-4	18.5	1772	100.16	62.6	31.3	29.9	90.2	90.4	87.5	0.86	0.82	0.76	2.2	7.5	2.0	3.6	0.139	84	76
1D180L-4	22	1769	119.1	74.1	37.1	35.4	90.6	90.8	87.9	0.86	0.82	0.76	2.2	7.5	2.2	3.6	0.158	84	76
1D200L-4	30	1773	162.41	99.9	50	47.8	91.6	91.8	88.9	0.86	0.85	0.83	2.2	7.2	1.9	3.3	0.262	87	79
1D225S-4	37	1777	198.96	121	60.6	57.9	92.2	92.4	89.4	0.87	0.86	0.84	2.2	7.2	1.6	2.8	0.406	89	81
1D225M-4	45	1778	241.98	146	73.2	70	92.7	92.9	89.9	0.87	0.86	0.84	2.2	7.2	1.8	3.2	0.469	89	81
1D250M-4	55	1776	295.75	178	89	85.1	93.2	93.4	90.4	0.87	0.86	0.84	2.2	7.2	1.8	2.9	0.66	91	83
1D280S-4	75	1782	403.29	239	119	114	93.8	93.6	91.0	0.88	0.87	0.85	2.2	6.8	1.7	3.1	1.12	95	86
1D280M-4	90	1784	483.95	286	143	137	94.0	93.8	91.2	0.88	0.87	0.85	2.2	6.8	1.6	3.2	1.46	95	86
1D315S-4	110	1783	591.5	346	173	166	94.7	94.5	92.3	0.88	0.87	0.85	2.1	6.9	1.6	3.1	3.11	102	93
1D315M-4	132	1785	709.8	414	207	198	95.0	94.8	92.6	0.88	0.87	0.85	2.1	6.9	1.6	3.4	3.29	102	93
1D315L1-4	160	1787	860.36	496	248	237	95.1	94.9	92.7	0.89	0.88	0.86	2.1	6.9	1.7	3.2	3.79	107	97
1D315L2-4	200	1786	1075.45	620	310	296	95.2	94.9	92.8	0.89	0.88	0.86	2.1	6.9	1.9	2.8	4.49	107	97
1D355M2-4	250	1786	1335.29	765	383	366	95.3	95.0	92.9	0.90	0.89	0.87	2.1	6.9	1.7	1.7	5.67	111	101
1D355L2-4	315	1785	1682.47	964	482	461	95.3	95.0	92.9	0.90	0.89	0.87	2.1	7.1	1.5	1.5	6.66	111	101

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque
•TFL = Full Load Torque

IE1 60HZ PERFORMANCE DATA

6-POLE 1200r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D80M1-6	0.37	1120	3.31	2.2	1.1	1.1	62.2	62.6	60.3	0.70	0.66	0.56	1.90	4.70	1.6	1.9	0.0023	59	15
1D80M2-6	0.55	1121	4.92	3.1	1.6	1.5	65.2	65.7	63.2	0.72	0.68	0.58	1.90	4.70	1.8	2.0	0.003	59	17
1D90S-6	0.75	1122	6.56	4	2	1.9	69.1	69.6	67.0	0.72	0.68	0.58	2.00	4.70	1.9	2.4	0.0029	63	20
1D90L-6	1.1	1121	9.62	5.5	2.8	2.6	72.2	72.7	70.0	0.73	0.69	0.58	2.00	5.30	2.2	2.6	0.0035	63	23
1D100L-6	1.5	1133	12.98	6.9	3.5	3.3	76.2	76.7	73.9	0.75	0.71	0.64	2.00	5.50	2.4	2.9	0.0069	67	30
1D112M-6	2.2	1137	18.63	9.6	4.8	4.6	79.1	79.7	76.7	0.76	0.71	0.65	2.00	5.50	1.7	2.3	0.0138	72	38
1D132S-6	3	1164	24.87	12.7	6.4	6.1	81.3	81.9	78.9	0.76	0.72	0.65	2.10	6.50	1.6	3.0	0.0286	76	55
1D132M1-6	4	1164	33.16	16.8	8.4	8	82.2	82.8	79.7	0.76	0.72	0.65	2.10	6.50	1.8	3.2	0.036	76	63
1D132M2-6	5.5	1168	45.59	22.3	11.2	10.7	84.1	84.7	81.6	0.77	0.73	0.65	2.10	6.50	1.9	2.5	0.045	76	70
1D160M-6	7.5	1163	61.53	29.6	14.8	14.2	86.3	86.5	83.7	0.77	0.73	0.68	2.00	6.50	1.7	2.5	0.088	80	105
1D160L-6	11	1166	90.25	42.2	21.1	20.2	87.7	87.9	85.1	0.78	0.74	0.69	2.00	6.50	1.6	2.4	0.116	80	120
1D180L-6	15	1172	123.07	54.5	27.3	26.1	89.2	89.4	86.5	0.81	0.77	0.71	2.00	7.00	1.5	2.0	0.207	80	175
1D200L1-6	18.5	1179	151.78	66.5	33.3	31.8	90.1	90.3	87.4	0.81	0.77	0.71	2.10	7.00	1.7	3.2	0.315	84	220
1D200L2-6	22	1175	180.5	77.1	38.6	36.9	90.2	90.4	87.5	0.83	0.81	0.76	2.00	7.00	1.4	2.8	0.36	84	235
1D225M-6	30	1183	243.62	102	51.2	48.9	91.6	91.8	88.9	0.84	0.81	0.77	2.00	7.00	1.4	1.8	0.547	84	300
1D250M-6	37	1180	300.47	123	61.3	58.6	92.1	92.3	89.3	0.86	0.83	0.79	2.10	7.00	1.8	2.9	0.834	86	370
1D280S-6	45	1187	365.43	148	74.2	70.9	92.6	92.8	89.8	0.86	0.83	0.79	2.10	7.00	1.6	3.5	1.39	88	480
1D280M-6	55	1184	446.64	181	90.3	86.3	93.0	92.8	90.2	0.86	0.83	0.79	2.10	7.00	1.5	3.3	1.65	88	535
1D315S-6	75	1186	602.9	244	122	117	93.7	93.5	90.9	0.86	0.83	0.79	2.00	6.70	1.7	3.1	4.11	94	790
1D315M-6	90	1185	723.48	292	146	140	94.0	93.8	91.7	0.86	0.83	0.79	2.00	6.70	1.5	3.4	4.28	94	880
1D315L1-6	110	1187	884.26	357	178	171	94.1	93.9	91.7	0.86	0.83	0.79	2.00	6.70	1.7	3.2	5.45	94	997
1D315L2-6	132	1190	1061.11	422	211	202	94.3	94.1	91.9	0.87	0.84	0.80	2.00	6.70	1.4	3.0	6.12	94	1100
1D355M1-6	160	1191	1286.2	504	252	241	94.7	94.4	92.3	0.88	0.85	0.81	1.90	6.70	1.3	2.6	8.85	101	1400
1D355M2-6	200	1190	1607.74	630	315	301	94.7	94.4	92.3	0.88	0.85	0.81	1.90	6.70	1.5	2.5	9.55	101	1750
1D355L-6	250	1191	2009.68	787	394	377	94.7	94.4	92.3	0.88	0.85	0.81	1.90	6.70	1.4	2.5	10.63	101	1950

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE1 60HZ PERFORMANCE DATA

8-POLE 900r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	TPU / TFL	TM / TFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
1D80M1-8	0.18	832	2.27	1.5	0.8	0.7	51.1	51.5	49.6	0.61	0.57	0.49	1.8	3.30	2.0	2.4	0.002	57	15
1D80M2-8	0.25	845	3.11	2	1	1	54.2	54.6	52.6	0.61	0.57	0.49	1.8	3.30	2.0	2.5	0.003	57	17
1D90S-8	0.37	854	4.46	2.6	1.3	1.2	62.2	62.6	60.3	0.61	0.57	0.49	1.8	4.00	1.9	2.6	0.004	62	20
1D90L-8	0.55	851	6.63	3.8	1.9	1.8	63.1	63.5	61.2	0.61	0.57	0.49	1.8	4.00	1.9	2.5	0.004	62	23
1D100L1-8	0.75	848	8.65	4.2	2.1	2	70.2	70.7	68.1	0.67	0.63	0.57	1.8	4.00	1.9	2.4	0.008	65	30
1D100L2-8	1.1	842	12.69	5.8	2.9	2.8	72.1	72.6	69.9	0.69	0.65	0.59	1.8	5.00	2.0	2.5	0.01	65	35
1D112M-8	1.5	845	17.3	7.6	3.8	3.6	74.2	74.7	72.0	0.70	0.67	0.60	1.8	5.00	2.3	2.7	0.017	67	40
1D132S-8	2.2	841	24.66	10.3	5.2	4.9	79.2	79.8	76.8	0.71	0.67	0.60	1.8	6.00	2.0	2.7	0.031	70	52
1D132M-8	3	855	33.63	13.4	6.7	6.4	80.2	80.8	77.8	0.73	0.69	0.62	1.8	6.00	2.2	2.7	0.04	70	60
1D160M1-8	4	856	44.21	17.7	8.9	8.5	81.1	81.3	78.7	0.73	0.69	0.64	1.9	6.00	1.7	2.4	0.075	75	90
1D160M2-8	5.5	869	60.79	23.4	11.7	11.2	83.2	83.4	80.7	0.74	0.70	0.65	1.9	6.00	2.0	3.0	0.093	75	105
1D160L-8	7.5	870	82.9	30.6	15.3	14.6	85.7	85.9	83.1	0.75	0.71	0.66	1.9	6.00	2.0	2.9	0.126	75	120
1D180L-8	11	868	119.92	43.9	22	21	87.6	87.8	85.0	0.75	0.71	0.66	2.0	6.50	1.9	2.9	0.203	77	150
1D200L-8	15	879	163.53	58.7	29.4	28.1	88.2	88.4	85.6	0.76	0.74	0.67	2.0	6.60	1.8	2.7	0.339	80	215
1D225S-8	18.5	881	201.68	70.9	35.5	33.9	90.1	90.3	87.4	0.76	0.74	0.67	1.9	6.6	1.7	3.1	0.491	80	265
1D225M-8	22	879	236.6	81.7	40.9	39.1	90.6	90.8	87.9	0.78	0.76	0.69	1.9	6.6	1.8	2.8	0.547	80	295
1D250M-8	30	884	322.64	109	54.7	52.3	91.2	91.4	88.5	0.79	0.77	0.70	1.9	6.5	2.2	2.6	0.83	83	380
1D280S-8	37	887	397.92	134	67.1	64.2	91.6	91.4	88.9	0.79	0.77	0.70	1.9	6.6	1.8	3.9	1.39	84	485
1D280M-8	45	887	483.95	162	81.2	77.6	92.1	91.9	89.3	0.79	0.77	0.70	1.9	6.6	2.0	3.1	1.65	84	570
1D315S-8	55	888	591.5	192	95.9	91.7	92.9	92.7	90.6	0.81	0.79	0.71	1.8	6.6	1.6	2.8	3.65	90	750
1D315M-8	75	890	806.59	260	130	124	93.6	93.4	91.3	0.81	0.79	0.71	1.8	6.2	1.3	2.8	5.58	90	810
1D315L1-8	90	889	967.91	306	153	147	94.0	93.8	91.7	0.82	0.80	0.72	1.8	6.4	1.7	2.7	6.37	90	1000
1D315L2-8	110	889	1183	374	187	179	94.1	93.8	91.7	0.82	0.80	0.72	1.8	6.4	2.0	2.6	7.23	90	1180
1D355M1-8	132	893	1419.59	449	224	215	94.2	93.9	91.8	0.82	0.80	0.72	1.8	6.4	1.0	2.3	10.55	99	1500
1D355M2-8	160	893	1720.72	543	272	260	94.3	94.0	91.9	0.82	0.80	0.72	1.8	6.4	1.1	2.3	11.73	99	1800
1D355L-8	200	893	2150.9	668	334	319	94.7	94.4	92.3	0.83	0.81	0.73	1.8	6.4	1.2	2.3	12.86	99	1900

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE2 50HZ PERFORMANCE DATA

2-POLE 3000r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
2D80M1-2	0.75	2750	2.5	1.8	1.7	1.6	77.4	77.6	75.1	0.82	0.78	0.62	2.3	6.8	0.008	62	17
2D80M2-2	1.1	2840	3.7	2.5	2.4	2.3	79.6	78.6	76.1	0.83	0.79	0.63	2.3	7.1	0.009	62	19
2D90S-2	1.5	2840	5	3.3	3.1	3	81.3	80.8	78.3	0.84	0.79	0.63	2.3	7.3	0.0012	67	22
2D90L-2	2.2	2840	7.4	4.7	4.5	4.3	83.2	83.3	80.8	0.85	0.8	0.64	2.3	7.6	0.0014	67	28
2D100L-2	3	2830	10	6.2	5.9	5.7	84.6	84.9	82.4	0.87	0.82	0.66	2.2	7.8	0.0029	74	32
2D112M-2	4	2890	13.2	8	7.6	7.3	85.8	86.7	84.2	0.88	0.83	0.67	2.2	8.1	0.0055	77	42
2D132S1-2	5.5	2910	18.1	10.9	10.4	10	87.0	87.8	85.3	0.88	0.83	0.67	2.2	8.2	0.0109	79	62
2D132S2-2	7.5	2905	24.7	14.5	13.8	13.3	88.1	89.3	86.8	0.89	0.83	0.67	2.2	7.8	0.0126	79	66
2D160M1-2	11	2935	35.9	21	20	19.2	89.4	90.6	88.1	0.89	0.84	0.68	2.2	7.9	0.0377	81	112
2D160M2-2	15	2935	48.9	28.4	27	26	90.3	90.5	88.9	0.89	0.84	0.68	2.2	7.9	0.0499	81	123
2D160L-2	18.5	2935	60.3	34.7	33	31.8	90.9	91.0	89.4	0.89	0.85	0.69	2.2	8.0	0.055	81	141
2D180M-2	22	2940	71.5	41.1	39	37.6	91.3	91.5	89.9	0.89	0.85	0.69	2.2	8.1	0.075	83	203
2D200L1-2	30	2945	97.2	55.7	52.9	51	92.0	91.6	90.7	0.89	0.85	0.69	2.0	7.5	0.124	84	246
2D200L2-2	37	2945	120	68.3	64.9	62.5	92.5	92.2	91.3	0.89	0.85	0.69	2.0	7.5	0.139	84	268
2D225S-2	45	2950	145	82.7	78.6	75.7	92.9	92.7	91.8	0.89	0.85	0.69	2.2	7.5	0.233	86	301
2D250M-2	55	2965	177	101	96	92.5	93.2	93.3	92.4	0.89	0.85	0.69	2.2	7.6	0.312	89	399
2D280S-2	75	2965	241	137	130	125	93.8	93.7	92.8	0.89	0.85	0.69	1.8	6.9	0.579	91	568
2D280M-2	90	2965	290	163	155	149	94.1	93.8	92.9	0.89	0.86	0.70	1.8	6.9	0.675	91	652
2D315S-2	110	2975	353	197	187	180	94.3	94.0	93.4	0.90	0.86	0.70	1.8	7.0	1.18	92	955
2D315M-2	132	2975	423	236	224	216	94.6	94.5	94.2	0.90	0.86	0.70	1.8	7.0	1.82	92	1063
2D315L1-2	160	2975	513	282	268	258	94.8	94.6	94.2	0.91	0.86	0.70	1.8	7.1	2.08	92	1144
2D315L2-2	200	2975	641	352	334	322	95.0	94.6	94.2	0.91	0.87	0.71	1.8	7.1	2.38	92	1227
2D355M2-2	250	2970	802	439	417	402	95.0	94.7	94.2	0.91	0.87	0.71	1.6	7.1	3	100	1816
2D355L1-2	315	2970	1010	554	526	507	95.0	94.7	94.2	0.91	0.87	0.71	1.6	7.2	3.5	100	1978

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•TFL = Full Load Torque

IE2 50HZ PERFORMANCE DATA

4-POLE 1500r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
2D802-4	0.75	1340	5.2	1.9	1.8	1.7	79.6	79.8	74.0	0.76	0.71	0.60	2.3	6.4	0.0021	56	20
2D90S-4	1.1	1380	7.5	2.7	2.6	2.5	81.4	81.6	77.0	0.77	0.71	0.61	2.3	6.6	0.0023	59	23
2D90L-4	1.5	1390	10.2	3.5	3.3	3.2	82.8	83.0	79.3	0.78	0.72	0.62	2.3	6.7	0.0027	59	27
2D100L1-4	2.2	1410	14.7	5	4.8	4.6	84.3	84.6	81.8	0.80	0.73	0.62	2.3	7.3	0.0054	64	36
2D100L2-4	3	1410	20	6.6	6.3	6	85.5	85.8	83.2	0.81	0.76	0.69	2.3	7.5	0.0067	64	42
2D112M-4	4	1440	26.5	8.7	8.3	8	86.6	86.9	84.9	0.81	0.77	0.70	2.3	7.5	0.0095	65	47
2D132S-4	5.5	1440	36.5	11.5	10.9	10.5	87.7	88.0	86.4	0.83	0.78	0.70	2.0	7.5	0.0214	71	68
2D132M-4	7.5	1445	49.8	15.5	14.7	14.2	88.7	89.0	87.6	0.83	0.79	0.71	2.0	7.3	0.0296	71	78
2D160M-4	11	1460	72	22.2	21.1	20.3	89.8	90.1	87.8	0.84	0.80	0.71	2.0	7.4	0.0747	73	115
2D160L-4	15	1460	98.2	29.6	28.1	27.1	90.6	90.9	88.9	0.85	0.80	0.74	2.0	7.5	0.0918	73	132
2D180M-4	18.5	1470	120	36.3	34.5	33.2	91.2	91.5	89.5	0.85	0.81	0.75	2.0	7.6	0.139	76	186
2D180L-4	22	1470	143	42.9	40.8	39.3	91.6	91.9	89.9	0.85	0.82	0.76	2.1	7.7	0.158	76	207
2D200L-4	30	1470	195	57.4	54.5	52.6	92.3	92.6	90.9	0.86	0.82	0.76	2.1	7.1	0.262	76	264
2D225S-4	37	1475	239	70.5	67	64.6	92.7	92.7	91.4	0.86	0.85	0.76	2.1	7.3	0.406	78	317
2D225M-4	45	1475	290	85.4	81.1	78.2	93.1	93.1	91.9	0.86	0.86	0.76	2.2	7.3	0.469	78	344
2D250M-4	55	1475	355	103	97.9	94.3	93.5	93.5	91.4	0.87	0.86	0.78	2.2	7.3	0.66	79	453
2D280S-4	75	1485	484	138	131	126	94.0	94.0	92.0	0.88	0.86	0.78	2.2	6.8	1.12	80	629
2D280M-4	90	1485	577	163	155	149	94.2	94.2	92.2	0.89	0.87	0.78	2.2	6.9	1.46	80	722
2D315S-4	110	1485	705	199	189	182	94.5	94.3	93.3	0.89	0.87	0.78	2.1	6.9	3.11	88	957
2D315M-4	132	1485	846	235	223	215	94.7	94.5	93.6	0.90	0.87	0.78	2.1	6.9	3.62	88	1075
2D315L1-4	160	1485	1026	285	271	261	94.9	94.7	93.7	0.90	0.87	0.78	2.1	6.9	4.13	88	1126
2D315L2-4	200	1485	1282	355	337	325	95.1	94.9	93.8	0.90	0.88	0.78	2.1	6.9	4.73	88	1289
2D355M-4	250	1490	1603	444	422	407	95.1	94.9	93.8	0.90	0.88	0.78	2.0	6.9	6.5	95	1779
2D355L1-4	315	1490	2020	559	531	512	95.1	94.9	93.9	0.90	0.88	0.78	2.0	6.9	8.2	95	1971

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE2 50HZ PERFORMANCE DATA

6-POLE 1000r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
2D90S-6	0.75	885	7.9	2.1	2	1.9	75.9	76.1	74.0	0.71	0.68	0.59	2.0	5.8	0.0029	57	23
2D90L-6	1.1	915	11.5	3	2.9	2.7	78.1	78.3	77.0	0.72	0.70	0.61	2.0	5.9	0.0035	57	27
2D100L-6	1.5	910	15.2	4	3.8	3.7	79.8	80.0	79.3	0.72	0.70	0.61	2.0	5.9	0.0069	61	36
2D112M-6	2.2	940	22.4	5.7	5.4	5.2	81.8	82.0	81.8	0.72	0.70	0.60	2.0	6.2	0.014	65	42
2D132S-6	3	960	29.9	7.6	7.2	7	83.3	83.5	83.2	0.72	0.72	0.66	2.0	6.4	0.0286	69	58
2D132M1-6	4	960	39.8	9.7	9.2	8.9	84.6	84.9	84.9	0.74	0.72	0.67	2.0	6.6	0.0357	69	70
2D132M2-6	5.5	960	54.7	13	12.4	11.9	86.0	86.3	86.4	0.75	0.73	0.67	2.0	6.8	0.0449	69	74
2D160M-6	7.5	970	73.9	16.8	16	15.4	87.2	87.5	87.6	0.78	0.73	0.67	2.0	6.8	0.0081	73	115
2D160L-6	11	970	108	23.9	22.7	21.9	88.7	89.0	87.8	0.79	0.74	0.67	2.0	6.9	0.116	73	129
2D180L-6	15	970	148	31	29.5	28.4	89.7	90.0	88.9	0.82	0.74	0.70	2.0	7.3	0.207	73	194
2D200L1-6	18.5	975	182	38.9	37	35.6	90.4	90.7	89.5	0.80	0.76	0.71	2.0	7.2	0.315	73	236
2D200L2-6	22	975	217	45.4	43.1	41.6	90.9	91.2	89.9	0.81	0.76	0.71	2.0	7.3	0.36	73	259
2D225M-6	30	980	292	60.6	57.6	55.5	91.7	92.0	90.9	0.82	0.77	0.71	2.0	6.8	0.547	74	318
2D250M-6	37	980	361	73.5	69.8	67.3	92.2	92.2	91.4	0.83	0.77	0.71	2.0	7.0	0.843	76	419
2D280S-6	45	980	439	86.8	82.5	79.5	92.7	92.7	91.9	0.85	0.78	0.71	2.0	7.2	1.39	78	511
2D280M-6	55	980	536	104	98.8	95.2	93.1	93.1	91.4	0.85	0.78	0.71	2.0	7.2	1.65	78	567
2D315S-6	75	935	724	145	138	133	93.7	93.7	92.0	0.85	0.78	0.71	2.0	6.5	4.11	83	856
2D315M-6	90	935	869	171	163	157	94.0	94.0	92.2	0.85	0.78	0.71	2.0	6.6	4.78	83	929
2D315L1-6	110	935	1062	209	199	191	94.3	94.1	93.3	0.85	0.78	0.71	2.0	6.6	5.45	83	1063
2D315L2-6	132	935	1274	247	235	226	94.6	94.4	93.6	0.86	0.78	0.72	2.0	6.6	6.12	83	1199
2D355M1-6	160	990	1544	298	283	273	94.8	94.6	93.7	0.86	0.78	0.72	2.0	6.7	9.5	85	1467
2D355M2-6	200	990	1930	372	353	341	95.0	94.8	93.8	0.86	0.78	0.72	2.0	6.8	10.4	85	1910
2D355L1-6	250	990	2413	465	442	426	95.0	94.8	93.8	0.86	0.78	0.72	2.0	6.8	12.4	85	2156

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque
•TFL = Full Load Torque

IE2 60HZ PERFORMANCE DATA

2-POLE 3600r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
2D80M1-2	0.75	3300	2.1	3.1	1.6	1.5	77.4	77.6	75.1	0.82	0.78	0.62	2.3	6.8	0.008	62	17
2D80M2-2	1.1	3408	3.08	4.4	2.2	2.1	79.6	78.6	76.1	0.83	0.79	0.63	2.3	7.1	0.009	62	19
2D90S-2	1.5	3408	4.19	5.8	2.9	2.8	81.3	80.8	78.3	0.84	0.79	0.63	2.3	7.3	0.0012	67	22
2D90L-2	2.2	3408	6.14	8.2	4.1	3.9	83.2	83.3	80.8	0.85	0.80	0.64	2.3	7.6	0.0014	67	28
2D100L-2	3	3396	8.29	10.7	5.4	5.1	84.6	84.9	82.4	0.87	0.82	0.66	2.2	7.8	0.0029	74	32
2D112M-2	4	3468	11.05	13.9	7	6.6	85.8	86.7	84.2	0.88	0.83	0.67	2.2	8.1	0.0055	77	42
2D132S1-2	5.5	3492	15.09	18.9	9.5	9	87.0	87.8	85.3	0.88	0.83	0.67	2.2	8.2	0.0109	79	62
2D132S2-2	7.5	3486	20.58	25.1	12.6	12	88.1	89.3	86.8	0.89	0.83	0.67	2.2	7.8	0.0126	79	66
2D160M1-2	11	3524	29.88	36.3	18.2	17.4	89.4	90.6	88.1	0.89	0.84	0.68	2.2	7.9	0.0377	81	112
2D160M2-2	15	3522	40.74	49	24.5	23.4	90.3	90.5	88.9	0.89	0.84	0.68	2.2	7.9	0.0499	81	123
2D160L-2	18.5	3522	50.25	60	30	28.7	90.9	91.0	89.4	0.89	0.85	0.69	2.2	8.0	0.055	81	141
2D180M-2	22	3528	59.55	71.1	35.6	34	91.3	91.5	89.9	0.89	0.85	0.69	2.2	8.1	0.075	83	203
2D200L1-2	30	3534	80.93	96.2	48.1	46	92.0	91.6	90.7	0.89	0.85	0.69	2.0	7.5	0.124	84	246
2D200L2-2	37	3534	99.82	118	59	56.4	92.5	92.2	91.3	0.89	0.85	0.69	2.0	7.5	0.139	84	268
2D225S-2	45	3540	120.58	143	71.4	68.3	92.9	92.7	91.8	0.89	0.85	0.69	2.2	7.5	0.233	86	301
2D250M-2	55	3558	147.38	174	87	83.2	93.2	93.3	92.4	0.89	0.85	0.69	2.2	7.6	0.312	89	399
2D280S-2	75	3558	200.97	236	118	113	93.8	93.7	92.8	0.89	0.85	0.69	1.8	6.9	0.579	91	568
2D280M-2	90	3558	241.16	282	141	135	94.1	93.8	92.9	0.89	0.86	0.70	1.8	6.9	0.675	91	652
2D315S-2	110	3570	293.76	340	170	163	94.3	94.0	93.4	0.90	0.86	0.70	1.8	7.0	1.18	92	955
2D315M-2	132	3570	352.52	407	204	195	94.6	94.5	94.2	0.90	0.86	0.70	1.8	7.0	1.82	92	1063
2D315L1-2	160	3570	427.29	487	243	233	94.8	94.6	94.2	0.91	0.86	0.70	1.8	7.1	2.08	92	1144
2D315L2-2	200	3570	534.12	607	304	290	95.0	94.6	94.2	0.91	0.87	0.71	1.8	7.1	2.38	92	1227
2D355M2-2	250	3564	667.65	759	380	363	95.0	94.7	94.2	0.91	0.87	0.71	1.6	7.1	3	100	1816
2D355L1-2	315	3564	841.23	956	478	457	95.0	94.7	94.2	0.91	0.87	0.71	1.6	7.2	3.5	100	1978

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

IE2 60HZ PERFORMANCE DATA

4-POLE 1800r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
2D802-4	0.75	1608	4.29	3.3	1.7	1.6	79.6	79.8	74.0	0.76	0.71	0.60	2.3	6.4	0.0021	56	20
2D90S-4	1.1	1656	6.25	4.6	2.3	2.2	81.4	81.6	77.0	0.77	0.71	0.61	2.3	6.6	0.0023	59	23
2D90L-4	1.5	1668	8.53	6.1	3.1	2.9	82.8	83.0	79.3	0.78	0.72	0.62	2.3	6.7	0.0027	59	27
2D100L1-4	2.2	1692	12.33	8.6	4.3	4.1	84.3	84.6	81.8	0.80	0.73	0.62	2.3	7.3	0.0054	64	36
2D100L2-4	3	1692	16.81	11.4	5.7	5.5	85.5	85.8	83.2	0.81	0.76	0.69	2.3	7.5	0.0067	64	42
2D112M-4	4	1728	22.11	15	7.5	7.2	86.6	86.9	84.9	0.81	0.77	0.70	2.3	7.5	0.0095	65	47
2D132S-4	5.5	1728	30.4	19.8	9.9	9.5	87.7	88.0	86.4	0.83	0.78	0.70	2.0	7.5	0.0214	71	68
2D132M-4	7.5	1734	41.45	26.7	13.4	12.8	88.7	89.0	87.6	0.83	0.79	0.71	2.0	7.3	0.0296	71	78
2D160M-4	11	1752	59.96	38.3	19.2	18.3	89.8	90.1	87.8	0.84	0.80	0.71	2.0	7.4	0.0747	73	115
2D160L-4	15	1752	81.76	51.1	25.6	24.4	90.6	90.9	88.9	0.85	0.80	0.74	2.0	7.5	0.0918	73	132
2D180M-4	18.5	1764	100.16	62.6	31.3	29.9	91.2	91.5	89.5	0.85	0.81	0.75	2.0	7.6	0.139	76	186
2D180L-4	22	1764	119.1	74.2	37.1	35.5	91.6	91.9	89.9	0.85	0.82	0.76	2.1	7.7	0.158	76	207
2D200L-4	30	1764	162.41	99.2	49.6	47.4	92.3	92.6	90.9	0.86	0.82	0.76	2.1	7.1	0.262	76	264
2D225S-4	37	1770	198.96	122	60.9	58.3	92.7	92.7	91.4	0.86	0.85	0.76	2.1	7.3	0.406	78	317
2D225M-4	45	1770	241.98	148	73.8	70.5	93.1	93.1	91.9	0.86	0.86	0.76	2.2	7.3	0.469	78	344
2D250M-4	55	1770	295.75	177	88.7	84.8	93.5	93.5	91.4	0.87	0.86	0.78	2.2	7.3	0.66	79	453
2D280S-4	75	1782	403.29	238	119	114	94.0	94.0	92.0	0.88	0.86	0.78	2.2	6.8	1.12	80	629
2D280M-4	90	1782	483.95	282	141	135	94.2	94.2	92.2	0.89	0.87	0.78	2.2	6.9	1.46	80	722
2D315S-4	110	1782	591.5	343	172	164	94.5	94.3	93.3	0.89	0.87	0.78	2.1	6.9	3.11	88	957
2D315M-4	132	1782	709.8	407	203	194	94.7	94.5	93.6	0.90	0.87	0.78	2.1	6.9	3.62	88	1075
2D315L1-4	160	1782	860.36	492	246	235	94.9	94.7	93.7	0.90	0.87	0.78	2.1	6.9	4.13	88	1126
2D315L2-4	200	1782	1075.45	613	307	293	95.1	94.9	93.8	0.90	0.88	0.78	2.1	6.9	4.73	88	1289
2D355M-4	250	1788	1335.29	767	383	367	95.1	94.9	93.8	0.90	0.88	0.78	2.0	6.9	6.5	95	1779
2D355L1-4	315	1788	1682.47	966	483	462	95.1	94.9	93.9	0.90	0.88	0.78	2.0	6.9	8.2	95	1971

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque
•TFL = Full Load Torque

IE2 60HZ PERFORMANCE DATA

6-POLE 1200r/min SYNCHONOUS SPEED

MOTOR TYPE	OUTPUT KW	Rated Power (RPM)	Full Load Torque (Nm)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY@: 100%FL	75%FL	50%FL	POWER FACTOR @: 100%FL	75%FL	50%FL	TST / TFL	IST / IFL	M of I J (kgm2)	NOISE LEVEL 1M dB(A)	Net WEIGHT (kg)
2D90S-6	0.75	1062	6.56	3.7	1.9	1.8	75.9	76.1	74.0	0.71	0.68	0.59	2.0	5.8	0.0029	57	23
2D90L-6	1.1	1098	9.62	5.1	2.6	2.4	78.1	78.3	77.0	0.72	0.70	0.61	2.0	5.9	0.0035	57	27
2D100L-6	1.5	1092	12.98	6.9	3.5	3.3	79.8	80.0	79.3	0.72	0.70	0.61	2.0	5.9	0.0069	61	36
2D112M-6	2.2	1128	18.63	9.8	4.9	4.7	81.8	82.0	81.8	0.72	0.70	0.60	2.0	6.2	0.014	65	42
2D132S-6	3	1152	24.87	13.1	6.6	6.3	83.3	83.5	83.2	0.72	0.72	0.66	2.0	6.4	0.0286	69	58
2D132M1-6	4	1152	33.16	16.8	8.4	8	84.6	84.9	84.9	0.74	0.72	0.67	2.0	6.6	0.0357	69	70
2D132M2-6	5.5	1152	45.59	22.4	11.2	10.7	86.0	86.3	86.4	0.75	0.73	0.67	2.0	6.8	0.0449	69	74
2D160M-6	7.5	1164	61.53	28.9	14.5	13.8	87.2	87.5	87.6	0.78	0.73	0.67	2.0	6.8	0.0081	73	115
2D160L-6	11	1164	90.25	41.2	20.6	19.7	88.7	89.0	87.8	0.79	0.74	0.67	2.0	6.9	0.116	73	129
2D180L-6	15	1164	123.07	53.5	26.8	25.6	89.7	90.0	88.9	0.82	0.74	0.70	2.0	7.3	0.207	73	194
2D200L1-6	18.5	1170	151.78	67.1	33.6	32.1	90.4	90.7	89.5	0.80	0.76	0.71	2.0	7.2	0.315	73	236
2D200L2-6	22	1170	180.5	78.4	39.2	37.5	90.9	91.2	89.9	0.81	0.76	0.71	2.0	7.3	0.36	73	259
2D225M-6	30	1176	243.62	105	52.4	50.1	91.7	92.0	90.9	0.82	0.77	0.71	2.0	6.8	0.547	74	318
2D250M-6	37	1176	300.47	127	63.5	60.7	92.2	92.2	91.4	0.83	0.77	0.71	2.0	7.0	0.843	76	419
2D280S-6	45	1176	365.43	150	75	71.7	92.7	92.7	91.9	0.85	0.78	0.71	2.0	7.2	1.39	78	511
2D280M-6	55	1176	446.64	182	91.2	87.2	93.1	93.1	91.4	0.85	0.78	0.71	2.0	7.2	1.65	78	567
2D315S-6	75	1122	602.9	247	124	118	93.7	93.7	92.0	0.85	0.78	0.71	2.0	6.5	4.11	83	856
2D315M-6	90	1122	723.48	296	148	141	94.0	94.0	92.2	0.85	0.78	0.71	2.0	6.6	4.78	83	929
2D315L1-6	110	1122	884.26	360	180	172	94.3	94.1	93.3	0.85	0.78	0.71	2.0	6.6	5.45	83	1063
2D315L2-6	132	1122	1061.11	426	213	204	94.6	94.4	93.6	0.86	0.78	0.72	2.0	6.6	6.12	83	1199
2D355M1-6	160	1188	1286.2	515	258	246	94.8	94.6	93.7	0.86	0.78	0.72	2.0	6.7	9.5	85	1467
2D355M2-6	200	1188	1607.74	642	321	307	95.0	94.8	93.8	0.86	0.78	0.72	2.0	6.8	10.4	85	1910
2D355L-6	250	1188	2009.68	803	402	384	95.0	94.8	93.8	0.86	0.78	0.72	2.0	6.8	12.4	85	2156

•INL =No load Current •IFL= Full Load Current •IST = Locked Rotor Current •TST = Locked Rotor Torque •TPU = Pull Up Torque •TM = Maximum Torque •TFL = Full Load Torque

2-pole, 3000r/min synchonous speed

Motor Type	Rated Power kW	Rated Speed r/min	Rated Current 380V A	Rated Current 400V A	Rated Current 415V A	Rated Eff. η%	Power Factor cosφ	Rated Torque Nm	Ist / In	Tst / Tn	Tmax / Tn	M of 1 kgm2	LW dB(A) no load	LW dB(A) load	Net Weight Kg
YE3-80M1-2	0.75	2910	1.7	1.6	1.6	80.7	0.82	2.5	7.0	2.3	2.3	0.001	62	64	20
YE3-80M2-2	1.1	2910	2.4	2.3	2.2	82.7	0.83	3.6	7.3	2.2	2.3	0.002	62	64	22
YE3-90S-2	1.5	2910	3.2	3.1	3	84.2	0.84	4.9	7.6	2.2	2.3	0.002	67	69	25
YE3-90L-2	2.2	2910	4.6	4.3	4.2	85.9	0.85	7.2	7.6	2.2	2.3	0.003	67	69	32
YE3-100L-2	3	2910	6	5.7	5.5	87.1	0.87	9.8	7.8	2.2	2.3	0.006	74	76	42
YE3-112M-2	4	2915	7.8	7.4	7.2	88.1	0.88	13.1	8.3	2.2	2.3	0.009	77	79	50
YE3-132S1-2	5.5	2920	10.6	10.1	9.7	89.2	0.88	18	8.3	2.0	2.3	0.024	79	81	70
YE3-132S2-2	7.5	2920	14.4	13.7	13.2	90.1	0.88	24.5	7.9	2.0	2.3	0.029	79	81	75
YE3-160M1-2	11	2935	20.6	19.6	18.9	91.2	0.89	35.8	8.1	2.0	2.3	0.067	81	83	132
YE3-160M2-2	15	2935	27.9	26.5	25.5	91.9	0.89	48.8	8.1	2.0	2.3	0.080	81	83	140
YE3-160L-2	18.5	2935	34.2	32.5	31.3	92.4	0.89	60.2	8.2	2.0	2.3	0.097	81	83	150
YE3-180M-2	22	2940	40.5	38.5	37.1	92.7	0.89	71.5	8.2	2.0	2.3	0.137	83	85	200
YE3-200L1-2	30	2950	54.9	52.1	50.3	93.3	0.89	97.1	7.6	2.0	2.3	0.227	84	86	260
YE3-200L2-2	37	2950	67.4	64	61.7	93.7	0.89	120	7.6	2.0	2.3	0.269	84	86	270
YE3-225M-2	45	2970	80.8	76.8	74	94.0	0.90	145	7.7	2.0	2.3	0.360	86	88	330
YE3-250M-2	55	2970	98.5	93.5	90.2	94.3	0.90	177	7.7	2.0	2.3	0.791	89	91	450
YE3-280S-2	75	2975	134	127	122	94.7	0.90	241	7.1	1.8	2.3	0.960	91	93	580
YE3-280M-2	90	2975	160	152	146	95.0	0.90	289	7.1	1.8	2.3	1.157	91	93	630
YE3-315S-2	110	2980	195	185	179	95.2	0.90	353	7.1	1.8	2.3	1.662	92	94	935
YE3-315M-2	132	2980	234	222	214	95.4	0.90	423	7.1	1.8	2.3	1.874	92	94	1032
YE3-315L1-2	160	2980	279	265	256	95.6	0.91	513	7.2	1.8	2.3	2.146	92	94	1100
YE3-315L-2	185	2980	323	307	296	95.6	0.91	593	7.2	1.8	2.3	2.266	92	94	1130
YE3-315L2-2	200	2980	349	331	319	95.8	0.91	641	7.2	1.8	2.2	2.448	92	94	1160
YE3-355M1-2	220	2980	388	368	355	95.8	0.90	705	7.2	1.6	2.2	2.693	100	102	1615
YE3-355M2-2	250	2980	436	414	399	95.8	0.91	801	7.2	1.6	2.2	4.034	100	102	1658
YE3-355L-2	280	2980	488	464	447	95.8	0.91	897	7.2	1.6	2.2	4.095	100	102	1736
YE3-355L1-2	315	2980	549	522	503	95.8	0.91	1010	7.2	1.6	2.2	4.645	100	102	1822
YE3-355L2-2	355	2980	619	588	567	95.8	0.91	1138	7.2	1.6	2.2	5.242	104	106	2300
YE3-355L3-2	375	2980	654	621	598	95.8	0.91	1202	7.2	1.6	2.2	5.536	104	106	2350

4-pole, 1500r/min synchonous speed

Motor Type	Rated Power kW	Rated Speed r/min	Rated Current 380V A	Rated Current 400V A	Rated Current 415V A	Rated Eff. η%	Power Factor cosφ	Rated Torque Nm	Ist / In	Tst / Tn	Tmax / Tn	Mof1 kgm2	LW dB(A) no load	LW dB(A) load	Net Weight Kg
YE3-802-4	0.75	1430	1.8	1.7	1.7	82.5	0.75	5	6.6	2.3	2.3	0.003	56	61	21
YE3-90S-4	1.1	1435	2.6	2.5	2.4	84.1	0.76	7.3	6.8	2.3	2.3	0.004	59	64	29
YE3-90L-4	1.5	1435	3.5	3.3	3.2	85.3	0.77	10	7.0	2.3	2.3	0.005	59	64	33
YE3-100L1-4	2.2	1450	4.8	4.5	4.4	86.7	0.81	14.5	7.6	2.3	2.3	0.012	64	69	40
YE3-100L2-4	3	1450	6.3	6	5.8	87.7	0.82	19.8	7.6	2.3	2.3	0.016	64	69	45
YE3-112M-4	4	1455	8.4	7.9	7.7	88.6	0.82	26.3	7.8	2.2	2.3	0.022	65	70	55
YE3-132S-4	5.5	1460	11.2	10.7	10.3	89.6	0.83	36	7.9	2.0	2.3	0.060	71	76	75
YE3-132M-4	7.5	1460	15	14.3	13.7	90.4	0.84	49.1	7.5	2.0	2.3	0.071	71	76	88
YE3-160M-4	11	1470	21.5	20.4	19.7	91.4	0.85	71.5	7.7	2.2	2.3	0.137	73	78	132
YE3-160L-4	15	1470	28.8	27.3	26.3	92.1	0.86	97.4	7.8	2.2	2.3	0.171	73	78	150
YE3-180M-4	18.5	1475	35.3	33.5	32.3	92.6	0.86	120	7.8	2.0	2.3	0.238	76	80	190
YE3-180L-4	22	1475	41.8	39.7	38.3	93.0	0.86	142	7.8	2.0	2.3	0.259	76	80	206
YE3-200L-4	30	1475	56.6	53.8	51.9	93.6	0.86	194	7.3	2.0	2.3	0.459	76	80	278
YE3-225S-4	37	1480	69.6	66.1	63.7	93.9	0.86	239	7.4	2.0	2.3	0.656	78	81	330
YE3-225M-4	45	1480	84.4	80.2	77.3	94.2	0.86	290	7.4	2.0	2.3	0.758	78	81	360
YE3-250M-4	55	1485	103	97.6	94.1	94.6	0.86	354	7.4	2.2	2.3	1.078	79	82	450
YE3-280S-4	75	1485	136	129	125	95.0	0.88	482	6.9	2.0	2.3	1.800	80	83	640
YE3-280M-4	90	1485	163	155	149	95.2	0.88	579	6.9	2.0	2.3	2.130	80	83	722
YE3-315S-4	110	1490	197	187	180	95.4	0.89	705	7.0	2.0	2.2	3.415	88	91	960
YE3-315M-4	132	1490	236	224	216	95.6	0.89	846	7.0	2.0	2.2	3.807	88	91	1050
YE3-315L1-4	160	1490	285	271	261	95.8	0.89	1026	7.1	2.0	2.2	3.423	88	91	1150
YE3-315L-4	185	1490	330	313	302	95.8	0.89	1186	7.1	2.0	2.2	4.479	88	91	1200
YE3-315L2-4	200	1490	352	334	322	95.8	0.89	1282	7.1	2.0	2.2	5.262	88	91	1250
YE3-355M1-4	220	1490	387	368	354	96.0	0.90	1410	7.1	2.0	2.2	5.449	95	97	1632
YE3-355M2-4	250	1490	440	418	403	96.0	0.90	1602	7.1	2.0	2.2	6.192	95	97	1725
YE3-355L-4	280	1490	492	468	451	96.0	0.90	1795	7.1	2.0	2.2	6.732	95	97	1792
YE3-355L1-4	315	1490	554	526	507	96.0	0.90	2019	7.1	2.0	2.2	7.273	95	97	1960
YE3-355L2-4	355	1490	638	607	585	96.0	0.88	2275	7.0	1.7	2.2	8.196	102	104	2150
YE3-355L3-4	375	1490	674	641	618	96.0	0.88	2404	7.0	1.7	2.2	8.658	102	104	2350

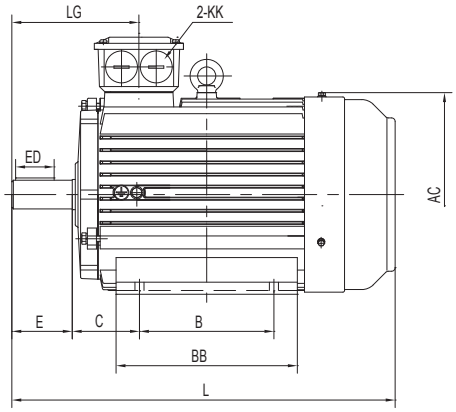
6-pole, 1000r/min synchonous speed

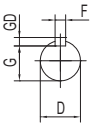
Motor Type	Rated Power kW	Rated Speed r/min	Rated Current 380V A	Rated Current 400V A	Rated Current 415V A	Rated Eff. η%	Power Factor cosφ	Rated Torque Nm	Ist / In	Tst / Tn	Tmax / Tn	M of 1 kgm2	LW dB(A) no load	LW dB(A) load	Net Weight Kg
YE3-90S-6	0.75	930	2	1.9	1.9	78.9	0.71	7.7	6.0	2.0	2.1	0.004	57	64	26
YE3-90L-6	1.1	930	2.8	2.7	2.6	81.0	0.73	11.3	6.0	2.0	2.1	0.006	57	64	30
YE3-100L-6	1.5	950	3.8	3.6	3.5	82.5	0.73	15.1	6.5	2.0	2.1	0.016	61	68	38
YE3-112M-6	2.2	960	5.4	5.1	4.9	84.3	0.74	21.9	6.6	2.0	2.1	0.039	65	72	48
YE3-132S-6	3	970	7.2	6.8	6.6	85.6	0.74	29.5	6.8	2.0	2.1	0.035	69	76	65
YE3-132M1-6	4	970	9.5	9	8.7	86.8	0.74	39.4	6.8	2.0	2.1	0.043	69	76	76
YE3-132M2-6	5.5	970	12.7	12	11.6	88.0	0.75	54.1	7.0	2.0	2.1	0.056	69	76	85
YE3-160M-6	7.5	975	16.2	15.4	14.8	89.1	0.79	73.5	7.0	2.0	2.1	0.140	73	80	130
YE3-160L-6	11	975	23.1	22	21.2	90.3	0.80	108	7.2	2.0	2.1	0.192	73	80	145
YE3-180L-6	15	985	30.9	29.3	28.2	91.2	0.81	145	7.3	2.0	2.1	0.319	73	79	195
YE3-200L1-6	18.5	980	37.8	36	34.7	91.7	0.81	180	7.3	2.0	2.1	0.446	73	79	250
YE3-200L2-6	22	980	44.8	42.5	41	92.2	0.81	214	7.4	2.0	2.1	0.557	73	79	265
YE3-225M-6	30	980	59.1	56.1	54.1	92.9	0.83	292	6.9	2.0	2.1	0.832	74	80	320
YE3-250M-6	37	980	71.7	68.1	65.7	93.3	0.84	361	7.1	2.0	2.1	1.447	76	82	420
YE3-280S-6	45	980	85.8	81.6	78.6	93.7	0.85	439	7.3	2.0	2.0	2.252	78	84	555
YE3-280M-6	55	980	103	98.1	94.6	94.1	0.86	536	7.3	2.0	2.0	2.726	78	84	630
YE3-315S-6	75	990	143	136	131	94.6	0.84	724	6.6	2.0	2.0	3.984	83	88	865
YE3-315M-6	90	990	170	161	155	94.9	0.85	868	6.7	2.0	2.0	4.500	83	88	980
YE3-315L1-6	110	990	207	196	189	95.1	0.85	1061	6.7	2.0	2.0	5.607	83	88	1100
YE3-315L2-6	132	990	244	232	224	95.4	0.86	1273	6.8	2.0	2.0	6.935	83	88	1200
YE3-355M1-6	160	990	296	281	271	95.6	0.86	1543	6.8	1.8	2.0	10.222	85	89	1650
YE3-355M-6	185	990	342	325	313	95.6	0.86	1785	6.8	1.8	2.0	10.750	85	89	1750
YE3-355M2-6	200	990	365	346	334	95.8	0.87	1929	6.8	1.8	2.0	11.031	85	89	1810
YE3-355M3-6	220	990	402	382	368	95.8	0.87	2122	6.8	1.8	2.0	11.705	85	89	1910
YE3-355L2-6	250	990	456	433	417	95.8	0.87	2412	6.8	1.8	2.0	11.897	85	89	2060
YE3-355L-6	280	990	512	486	468	95.8	0.87	2701	6.8	1.8	2.0	14.333	85	89	2110
YE3-355L3-6	315	990	581	552	532	95.8	0.86	3039	6.8	1.8	2.0	14.990	91	95	2400

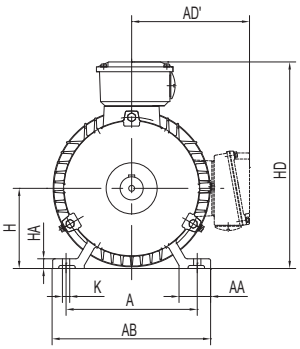
Frame	A	AA	AB	AC	AD'	B	BB	C	D	E	ED	F	G	GD	H	HA	HD	K	KK	L	LG
80M	125	34	160	175	150	100	130	50	19	40	22	6	15.5	6	80	10	230	10	M25×1.5	295	106
90S	140	36	180	190	165	100	135	56	24	50	32	8	20	7	90	12.5	260	10	M25×1.5	320	124
90L	140	36	180	190	165	125	160	56	24	50	32	8	20	7	90	12.5	260	10	M25×1.5	345	124
100L	160	40	200	215	170	140	182	63	28	60	40	8	24	7	100	14	275	12	M25×1.5	385	140
112M	190	45	230	236	195	140	195	70	28	60	40	8	24	7	112	14	310	12	M32×1.5	410	145
132S	216	52	265	275	215	140	205	89	38	80	56	10	33	8	132	16	350	12	M32×1.5	480	169
132M	216	52	265	275	215	178	245	89	38	80	56	10	33	8	132	16	350	12	M32×1.5	520	169
160M	254	65	320	330	265	210	260	108	42	110	80	12	37	8	160	19	425	14.5	M40×1.5	610	270
160L	254	65	320	330	265	254	305	108	42	110	80	12	37	8	160	19	425	14.5	M40×1.5	655	270
180M	279	70	350	380	280	241	285	121	48	110	80	14	42.5	9	180	22	440	14.5	M40×1.5	680	277
180L	279	70	350	380	280	279	325	121	48	110	80	14	42.5	9	180	22	440	14.5	M40×1.5	720	277
200L	318	80	390	420	315	305	355	133	55	110	80	16	49	10	200	25	505	18.5	M50×1.5	760	298
225S(4-8P)	356	75	435	465	335	286	350	149	60	140	100	18	53	11	225	28	550	18.5	M50×1.5	825	340
225M(2P)	356	75	435	465	335	311	375	149	55	110	80	16	49	10	225	28	550	18.5	M50×1.5	820	310
225M(4-8P)	356	75	435	465	335	311	375	149	60	140	100	18	53	11	225	28	550	18.5	M50×1.5	850	340
250M(2P)	406	100	485	520	375	349	450	168	60	140	100	18	53	11	250	33	635	24	M63×1.5	925	357
250M(4-8P)	406	100	485	520	375	349	450	168	65	140	100	18	58	11	250	33	635	24	M63×1.5	925	357
280S(2P)	457	105	550	570	405	368	490	190	65	140	100	18	58	11	280	35	695	24	M63×1.5	970	350
280S(4-8P)	457	105	550	570	405	368	490	190	75	140	100	20	67.5	12	280	35	695	24	M63×1.5	990	350
280M(2P)	457	105	550	570	405	419	540	190	65	140	100	18	58	11	280	35	695	24	M63×1.5	1025	350
280M(4-8P)	457	105	550	570	405	419	540	190	75	140	100	20	67.5	12	280	35	695	24	M63×1.5	1045	350
315S(2P)	508	125	630	650	500	406	515	216	65	140	100	18	58	11	315	45	810	28	M63×1.5	1160	387
315M(2P)	508	125	630	650	500	457	625	216	65	140	100	18	58	11	315	45	810	28	M63×1.5	1270	387
315L(2P)	508	125	630	650	500	508	625	216	65	140	100	18	58	11	315	45	810	28	M63×1.5	1270	387
315S(4-8P)	508	125	630	650	500	406	515	216	80	170	130	22	71	14	315	45	810	28	M63×1.5	1190	417
315M(4-8P)	508	125	630	650	500	457	625	216	80	170	130	22	71	14	315	45	810	28	M63×1.5	1300	417
315L(4-8P)	508	125	630	650	500	508	625	216	80	170	130	22	71	14	315	45	810	28	M63×1.5	1300	417
355M(2P)	610	125	735	735	645	560	850	254	75	140	110	20	67.5	12	355	49	1000	28	M63×1.5	1600	420
355L(2P)	610	125	735	735	645	630	850	254	75	140	110	20	67.5	12	355	49	1000	28	M63×1.5	1600	420
355M(4-8P)	610	125	735	735	645	560	850	254	95	170	140	25	86	14	355	49	1000	28	M63×1.5	1630	450
355L(4-8P)	610	125	735	735	645	630	850	254	95	170	140	25	86	14	355	49	1000	28	M63×1.5	1630	450

DIMENSIONS MOUNT B3

1D80-132







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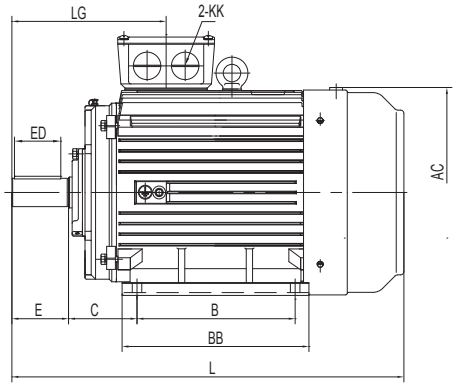

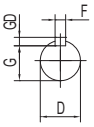

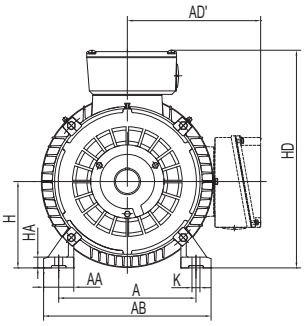

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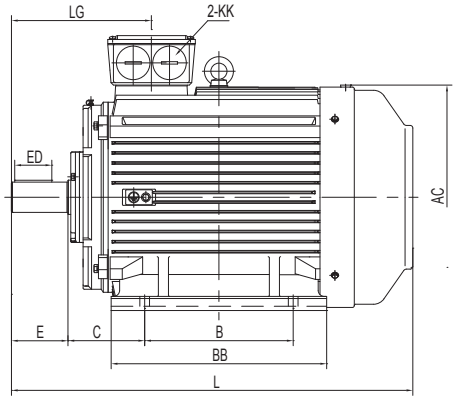

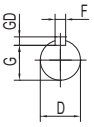

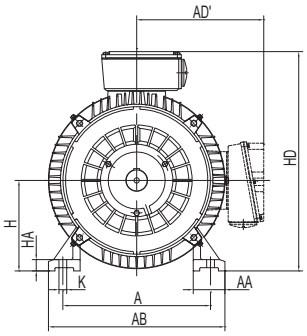

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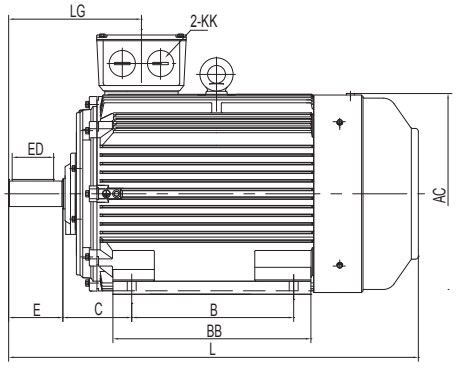
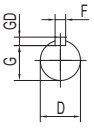
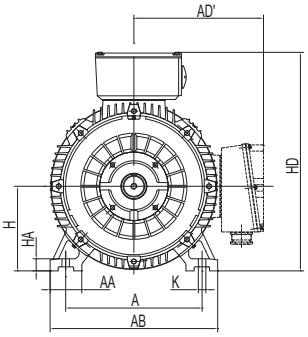






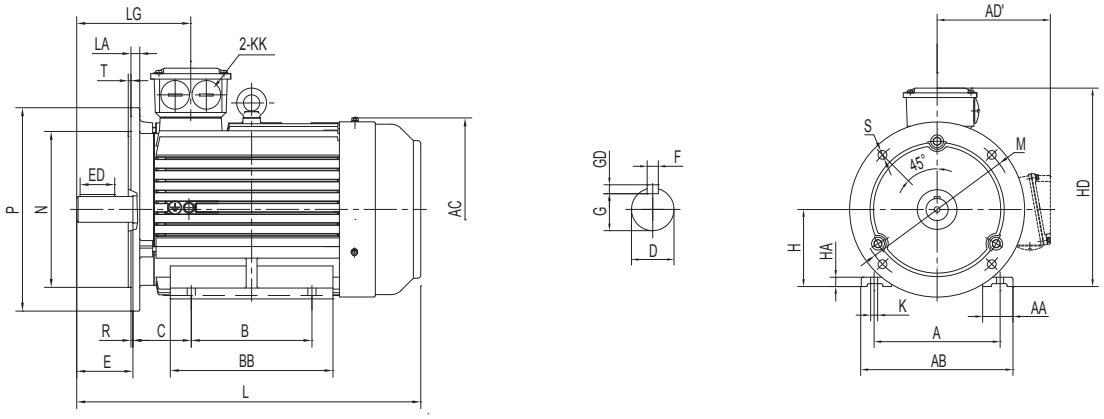
1D

DIMENSIONS MOUNT B35

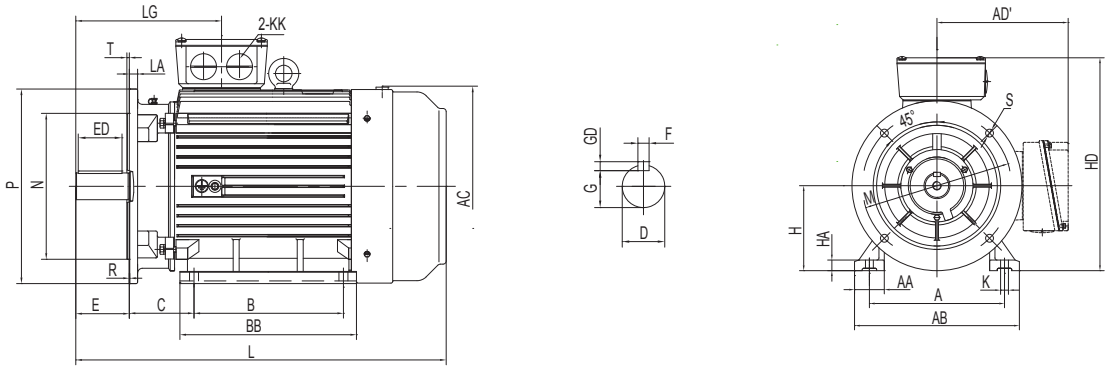
FRAME	A	AA	AB	AC	AD'	B	BB	C	D	E	ED	F	G	GD	H	HA	HD	K	KK	L	LG	LA	M	N	P	S	T
80M	125	34	160	175	150	100	130	50	19	40	22	6	15.5	6	80	10	230	10	M25x1.5	295	106	12	165	130	200	12	3.5
90S	140	36	180	190	165	100	135	56	24	50	32	8	20	7	90	12.5	260	10	M25x1.5	320	124	12	165	130	200	12	3.5
90L	140	36	180	190	165	125	160	56	24	50	32	8	20	7	90	12.5	260	10	M25x1.5	345	124	12	165	130	200	12	3.5
100L	160	40	200	215	170	140	182	63	28	60	40	8	24	7	100	14	275	12	M25x1.5	385	140	14	215	180	250	14.5	4
112M	190	45	230	236	195	140	195	70	28	60	40	8	24	7	112	14	310	12	M32x1.5	410	145	14	215	180	250	14.5	4
132S	216	52	265	275	215	140	205	89	38	80	56	10	33	8	132	16	350	12	M32x1.5	480	169	14	265	230	300	14.5	4
132M	216	52	265	275	215	178	245	89	38	80	56	10	33	8	132	16	350	12	M32x1.5	520	169	14	265	230	300	14.5	4
160M	254	65	320	330	265	210	260	108	42	110	80	12	37	8	160	19	425	14.5	M40x1.5	610	270	15	300	250	350	18.5	5
160L	254	65	320	330	265	254	305	108	42	110	80	12	37	8	160	19	425	14.5	M40x1.5	655	270	15	300	250	350	18.5	5
180M	279	70	350	380	280	241	285	121	48	110	80	14	42.5	9	180	22	440	14.5	M40x1.5	680	277	15	300	250	350	18.5	5
180L	279	70	350	380	280	279	325	121	48	110	80	14	42.5	9	180	22	440	14.5	M40x1.5	720	277	15	300	250	350	18.5	5
200L	318	80	395	420	315	305	355	133	55	110	80	16	49	10	200	25	505	18.5	M50x1.5	760	298	17	350	300	400	18.5	5
225S(4-8P)	356	75	436	465	335	286	350	149	60	140	100	18	53	11	225	28	550	18.5	M50x1.5	825	340	20	400	350	450	18.5	5
225M(2P)	356	75	436	465	335	311	375	149	55	110	80	16	49	10	225	28	550	18.5	M50x1.5	820	310	20	400	350	450	18.5	5
225M(4-8P)	356	75	436	465	335	311	375	149	60	140	100	18	53	11	225	28	550	18.5	M50x1.5	850	340	20	400	350	450	18.5	5
250M(2P)	406	100	495	520	375	349	450	168	60	140	100	18	53	11	250	33	635	24	M63x1.5	925	357	20	500	450	550	18.5	5
250M(4-8P)	406	100	495	520	375	349	450	168	65	140	100	18	58	11	250	33	635	24	M63x1.5	925	357	20	500	450	550	18.5	5
280S(2P)	457	105	550	570	405	368	490	190	65	140	100	18	58	11	280	35	695	24	M63x1.5	970	350	22	500	450	550	18.5	5
280S(4-8P)	457	105	550	570	405	368	490	190	75	140	100	20	67.5	12	280	35	695	24	M63x1.5	990	350	22	500	450	550	18.5	5
280M(2P)	457	105	550	570	405	419	540	190	65	140	100	18	58	11	280	35	695	24	M63x1.5	1025	350	22	500	450	550	18.5	5
280M(4-8P)	457	105	550	570	405	419	540	190	75	140	100	20	67.5	12	280	35	695	24	M63x1.5	1045	350	22	500	450	550	18.5	5
315S(2P)	508	125	630	650	500	406	515	216	65	140	100	18	58	11	315	45	810	28	M63x1.5	1160	387	24	600	550	660	24	6
315M(2P)	508	125	630	650	500	457	625	216	65	140	100	18	58	11	315	45	810	28	M63x1.5	1270	387	24	600	550	660	24	6
315L(2P)	508	125	630	650	500	508	625	216	65	140	100	18	58	11	315	45	810	28	M63x1.5	1270	387	24	600	550	660	24	6
315S(4-8P)	508	125	630	650	500	406	515	216	80	170	130	22	71	14	315	45	810	28	M63x1.5	1190	417	24	600	550	660	24	6
315M(4-8P)	508	125	630	650	500	457	625	216	80	170	130	22	71	14	315	45	810	28	M63x1.5	1300	417	24	600	550	660	24	6
315L(4-8P)	508	125	630	650	500	508	625	216	80	170	130	22	71	14	315	45	810	28	M63x1.5	1300	417	24	600	550	660	24	6
355M(2P)	610	125	735	735	645	560	850	254	75	140	110	20	67.5	12	355	49	1000	28	M63x1.5	1600	420	25	740	680	800	24	6
355L(2P)	610	125	735	735	645	630	850	254	75	140	110	20	67.5	12	355	49	1000	28	M63x1.5	1600	420	25	740	680	800	24	6
355M(4-8P)	610	125	735	735	645	560	850	254	95	170	140	25	86	14	355	49	1000	28	M63x1.5	1630	450	25	740	680	800	24	6
355L(4-8P)	610	125	735	735	645	630	850	254	95	170	140	25	86	14	355	49	1000	28	M63x1.5	1630	450	25	740	680	800	24	6

DIMENSIONS MOUNT B35

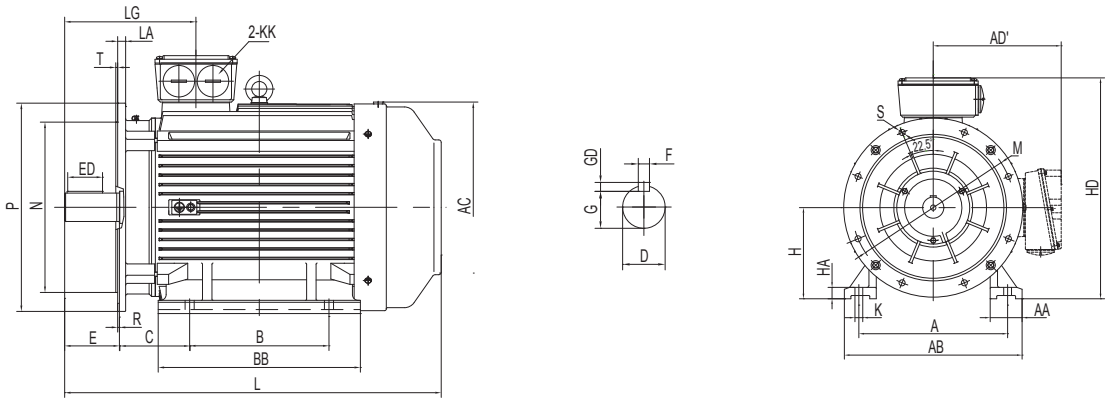
1D80-132



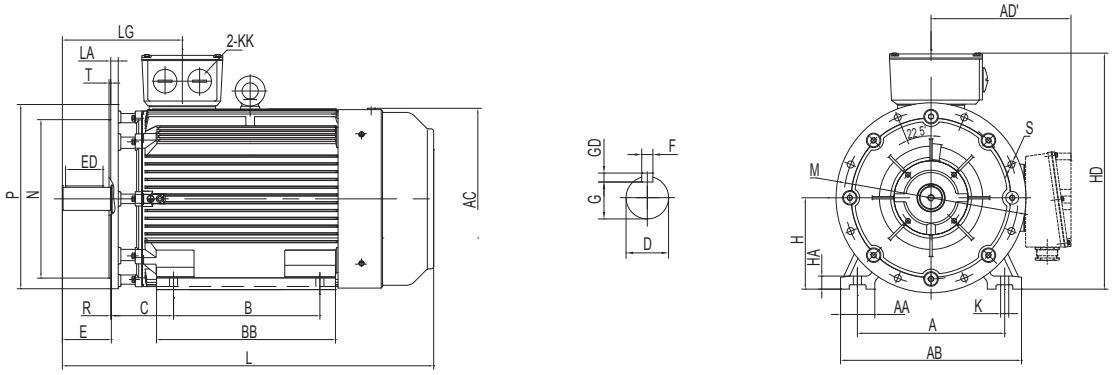
1D160-200



1D225-280



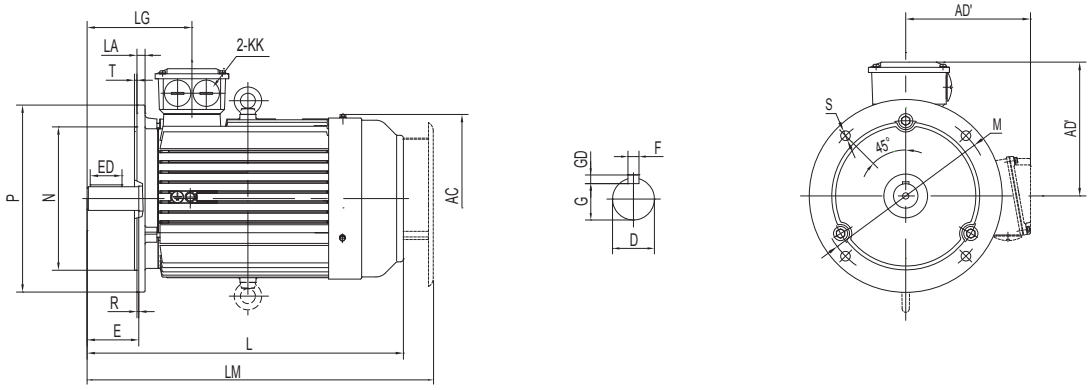
1D315-355



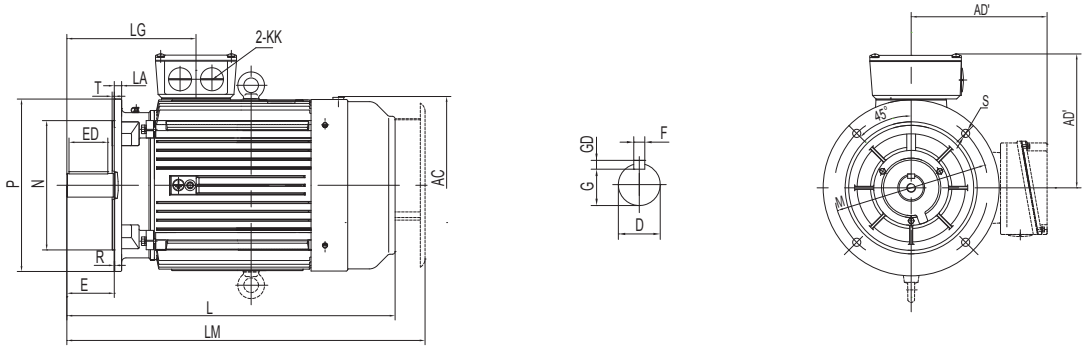
FRAME	AC	AD'	D	E	ED	F	G	GD	KK	L	LM	LA	LG	M	N	P	S	T
80M	175	150	19	40	22	6	15.5	6	M25x1.5	295	335	12	106	165	130	200	12	3.5
90S	190	165	24	50	32	8	20	7	M25x1.5	320	360	12	124	165	130	200	12	3.5
90L	190	165	24	50	32	8	20	7	M25x1.5	345	385	12	124	165	130	200	12	3.5
100L	215	170	28	60	40	8	24	7	M25x1.5	385	430	14	140	215	180	250	14.5	4
112M	236	195	28	60	40	8	24	7	M32x1.5	410	460	14	145	215	180	250	14.5	4
132S	275	215	38	80	56	10	33	8	M32x1.5	480	530	14	169	265	230	300	14.5	4
132M	275	215	38	80	56	10	33	8	M32x1.5	520	570	14	169	265	230	300	14.5	4
160M	330	265	42	110	80	12	37	8	M40x1.5	610	665	15	270	300	250	350	18.5	5
160L	330	265	42	110	80	12	37	8	M40x1.5	655	720	15	270	300	250	350	18.5	5
180M	380	280	48	110	80	14	42.5	9	M40x1.5	680	755	15	277	300	250	350	18.5	5
180L	380	280	48	110	80	14	42.5	9	M40x1.5	720	795	15	277	300	250	350	18.5	5
200L	420	315	55	110	80	16	49	10	M50x1.5	760	845	17	300	350	300	400	18.5	5
225S(4-8P)	465	335	60	140	100	18	53	11	M50x1.5	825	895	20	340	400	350	450	18.5	5
225M(2P)	465	335	55	110	80	16	49	10	M50x1.5	820	890	20	310	400	350	450	18.5	5
225M(4-8P)	465	335	60	140	100	18	53	11	M50x1.5	850	920	20	340	400	350	450	18.5	5
250M(2P)	520	375	60	140	100	18	53	11	M63x1.5	925	1015	20	357	500	450	550	18.5	5
250M(4-8P)	520	375	65	140	100	18	58	11	M63x1.5	925	1015	20	357	500	450	550	18.5	5
280S(2P)	570	405	65	140	100	18	58	11	M63x1.5	970	1075	22	350	500	450	550	18.5	5
280S(4-8P)	570	405	75	140	100	20	67.5	12	M63x1.5	990	1075	22	350	500	450	550	18.5	5
280M(2P)	570	405	65	140	100	18	58	11	M63x1.5	1025	1125	22	350	500	450	550	18.5	5
280M(4-8P)	570	405	75	140	100	20	67.5	12	M63x1.5	1045	1125	22	350	500	450	550	18.5	5
315S(2P)	650	500	65	140	100	18	58	11	M63x1.5	1160	1250	24	387	600	550	660	24	6
315M(2P)	650	500	65	140	100	18	58	11	M63x1.5	1270	1360	24	387	600	550	660	24	6
315L(2P)	650	500	65	140	100	18	58	11	M63x1.5	1270	1360	24	387	600	550	660	24	6
315S(4-8P)	650	500	80	170	130	22	71	14	M63x1.5	1190	1280	24	417	600	550	660	24	6
315M(4-8P)	650	500	80	170	130	22	71	14	M63x1.5	1300	1390	24	417	600	550	660	24	6
315L(4-8P)	650	500	80	170	130	22	71	14	M63x1.5	1300	1390	24	417	600	550	660	24	6
355M(2P)V1	735	645	75	140	110	20	67.5	12	M63x1.5	-	1690	25	420	740	680	800	24	6
355L(2P)V1	735	645	75	140	110	20	67.5	12	M63x1.5	-	1690	25	420	740	680	800	24	6
355M(4-8P)V1	735	645	95	170	140	25	86	14	M63x1.5	-	1720	25	450	740	680	800	24	6
355L(4-8P)V1	735	645	95	170	140	25	86	14	M63x1.5	-	1720	25	450	740	680	800	24	6

DIMENSIONS MOUNT B5 & V1

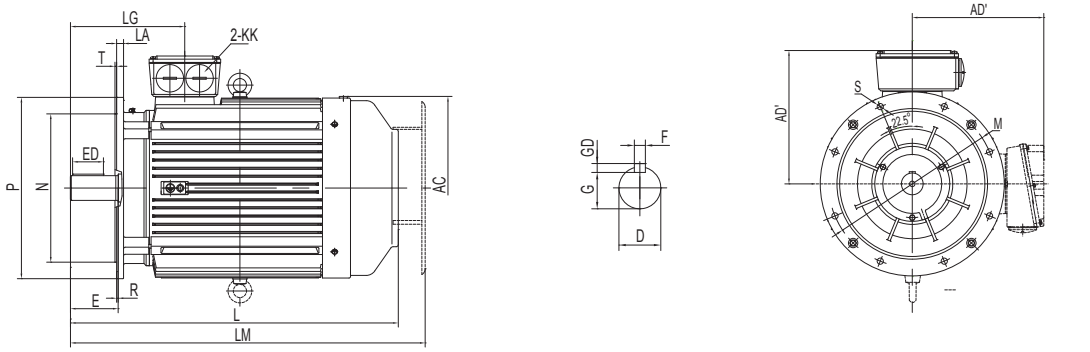
1D80-132



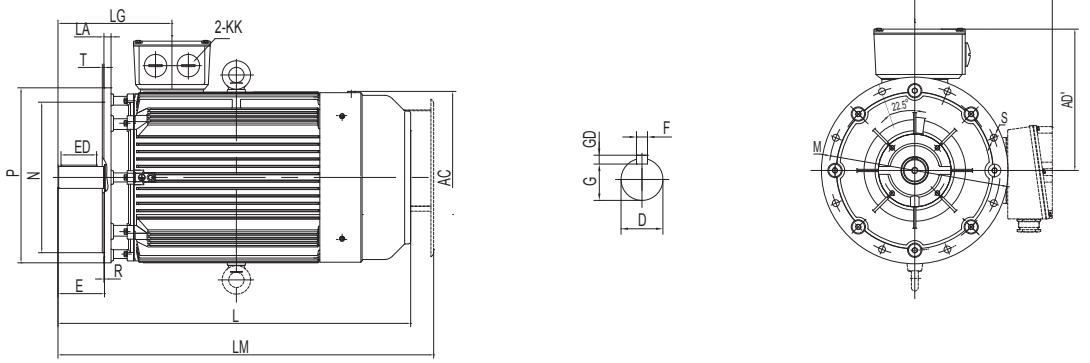
1D160-200



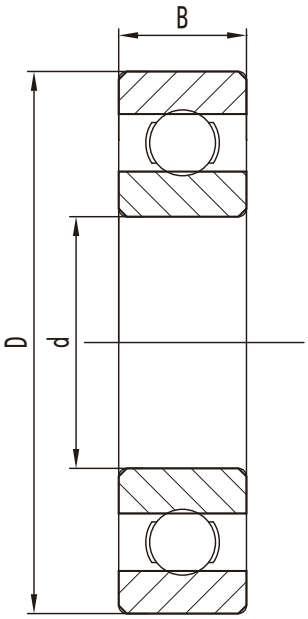
1D225-280



1D315-355

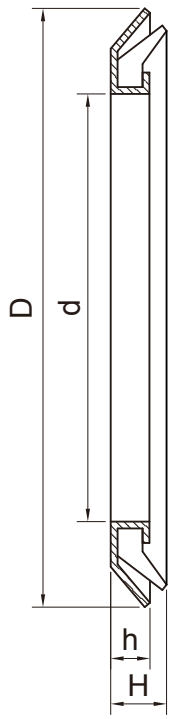


BEARING



Frame	DE	NDE	d	D	B
80	6204 ZZ	6204 ZZ	20	47	14
90	6205 ZZ	6205 ZZ	25	52	15
100	6206 ZZ	6206 ZZ	30	62	16
112	6306 ZZ	6306 ZZ	30	72	19
132	6308 ZZ	6308 ZZ	40	90	23
160	6309	6309	45	100	25
180	6311	6311	55	120	29
200	6312	6312	60	130	31
225	6313	6313	65	140	33
250	6314	6314	70	150	35
250(V1)	7314	6314	70	150	35
280-2P	6314	6314	70	150	35
280-2P(V1)	7314	6314	70	150	35
280-4-8P	6317	6317	85	180	41
280-4-8P(V1)	7317	6317	85	180	41
315-2P	6316	6316	80	170	39
315-2P(V1)	7316	6316	80	170	39
315-4-10P	6319	6319	95	200	45
315-4-10P(V1)	7319	6319	95	200	45
355-2P	6319	6319	95	200	45
355-2P(V1)	7319	6319	95	200	45
355-4-10P	NU322	6322	110	240	50
355-4-10P(V1)	NU322	7322	110	240	50

OIL SEALING



Frame	Type	d	D	h	H
80	RB20*35*4.0	Ø20	Ø35	3	6
90	RB25*40*4.0	Ø25	Ø40	3	6
100	RB30*47*4.5	Ø30	Ø47	3.5	6
112	RB30*47*4.5	Ø30	Ø47	3.5	6
132	RB40*57*4.5	Ø40	Ø57	3.5	6.5
160	RB45*62*4.5	Ø45	Ø62	3.5	6.5
180	RB55*75*5.5	Ø55	Ø75	4.5	6.5
200	RB60*80*5.5	Ø60	Ø80	4.5	6.5
225	RB65*85*5.5	Ø65	Ø85	4.5	8
250	RB70*90*5.5	Ø70	Ø90	4.5	8
280-2	RB70*90*5.5	Ø70	Ø90	4.5	8
280-4	RB85*105*5.5	Ø85	Ø105	4.5	8
315-2	RB80*100*5.5	Ø80	Ø100	4.5	8
315-4	RB95*115*5.5	Ø95	Ø115	4.5	8
355-2	RB95*115*5.5	Ø95	Ø115	4.5	8
355-4	RB110*130*5.5	Ø110	Ø130	4.5	8

VIBRATION LIMITS OF MAXIMUM WITH NO LOAD

Vibration grade	Shaft height mm	56<H ≤ 132			132<H ≤ 280			H>280		
	Mounting	Displac. μm	Vel. mm/s	Acc. m/s²	Displac. μm	Vel. mm/s	Acc. m/s²	Displac. μm	Vel. mm/s	Acc. m/s²
A	Free suspension	25	1.6	2.5	35	2.2	3.5	45	2.8	4.4
	Rigid mounting	21	1.3	2	29	1.8	2.8	37	2.3	3.6
B	Free suspension	11	0.7	1.1	18	1.1	1.7	29	1.8	2.8
	Rigid mounting	—	—	—	14	0.9	1.4	24	1.5	2.4

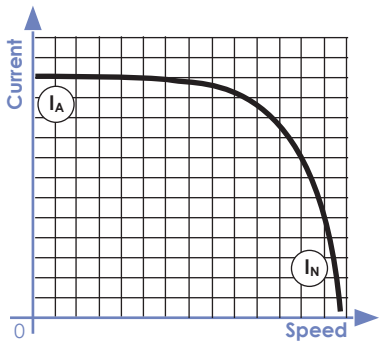
Grade "A" applies to machines with no special vibration requirements.
Grade "B" applies to machines with special vibration requirements. Rigid mounting is not considered acceptable for machines with shaft heights less than 132 mm.
The interface frequencies for displacement/velocity and velocity/acceleration are 10 Hz and 250 Hz respectively.

NOTE:

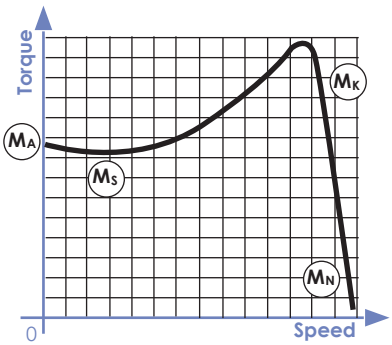
1. The manufacturer and the purchaser should take into account that the instrumentation can have a measurement tolerance of ± 10 %.
2. The shaft height of a machine without feet, or a machine with raised feet, or any vertical machine is to be taken as the shaft height of a machine in the same basic frame, but of the horizontal shaft foot-mounting type.
3. A machine which is well-balanced in itself, may exhibit large vibrations when installed in-situ arising from various causes, such as unsuitable foundations, reaction of the driven machine, current ripple from the power supply, etc. Vibration may also be caused by driving elements with a natural oscillation frequency very close to the excitation due to the small residual unbalance of the rotating masses of the machine. In such cases, checks should be carried out not only on the machine, but also on each element of the installation. (See ISO 10816-3).

DOL Starting

Typical speed/current curve



Typical speed/torque curve



(I_A) Starting current
(I_N) Full load current
(M_A) Pull up torque or run up torque
(M_S) Pull up torque or run up torque
(M_K) Pull out torque or breakdown torque
(M_N) Full load torque

Star/delta starting:during the run up period in star, there must be an adequate excess of motor torque over the load torque. The change to delta must not occur until the motor is near the operating speed . Refer to Elektrim Motor for running up against a load in excess of 70% full load during Star Delta starting.

Pereformance figures are subject to IEC tolerances.Performance figures are based on a 400 volt winding.

$$J(WK^2 \text{ OR } WR^2) = \frac{GD^2}{4} \qquad J \text{ in lb ft}^2 = \frac{kgm^2}{0.042}$$

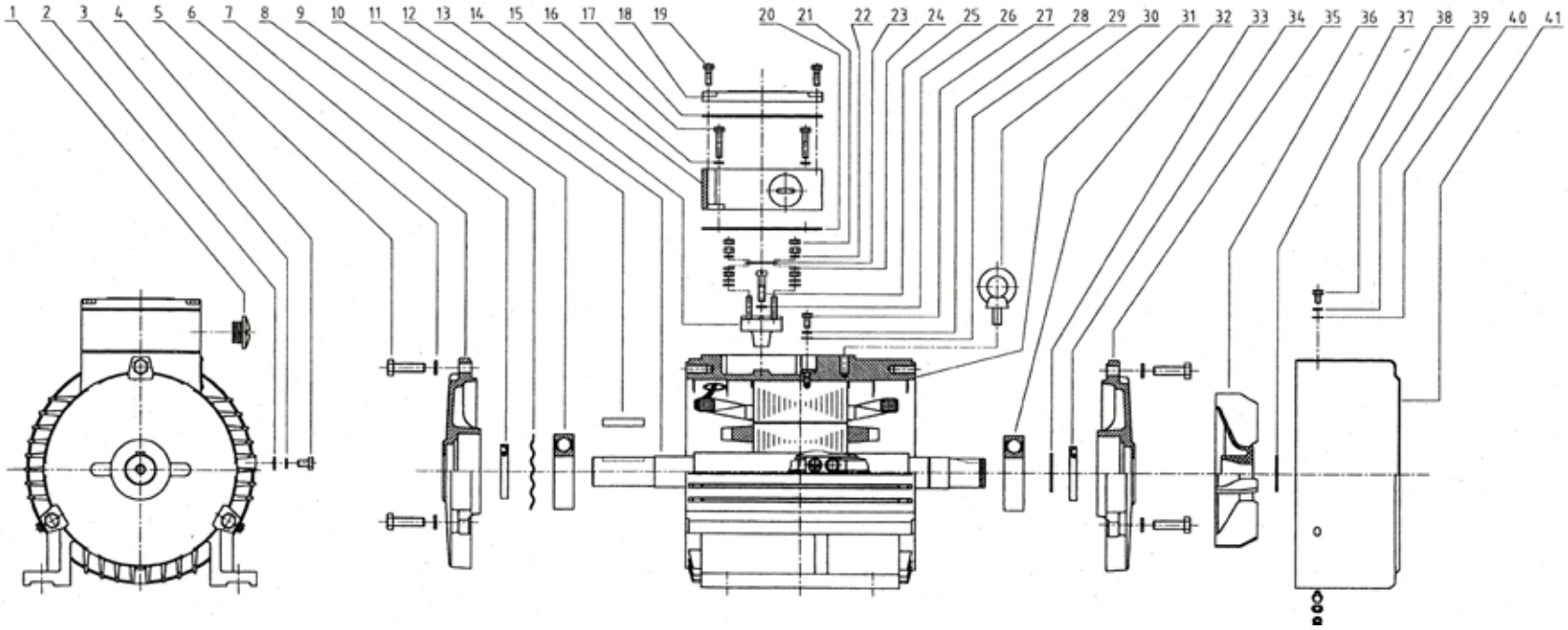
60Hz voltage supply

Motors wound for 50Hz supply can be operated on a 60Hz supply. Performance data listed on page 7 to 20 will be unaffected with the exception of :
Output (kW) - will increase by 15% Speed (min^{-1}) will increase by approximately 20%

Noise (dB(A)) will increase by approximately:

- 2 pole will increase by 5 dB(A)
- 4 pole will increase by 3 dB(A)
- 6 pole will increase by 2 dB(A)
- 8 pole will increase by 1 dB(A)

EXPLODED VIEW



ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
1	2	Plug for cable entry	16	4	Bolt for terminal box lid	31	1	Stator frame
2	1	Flat washer for external earth	17	1	Gasket for terminal box	32	1	NDE bearing
3	1	Spring washer for external earth	18	1	Nut for terminal stud	33	1	Circlip for NDE bearing
4	1	Bolt for external earth	19	4	Spring washer for terminal stud	34	1	NDE oil seal
5	6	Bolt for DE / NDE endshield	20	1	Connection link	35	1	NDE endshield
6	6	Spring washer for DE / NDE endshield	21	18	Flat washer for terminal stud	36	1	Fan
7	1	DE endshield	22	6	Spring washer for terminal stud	37	3	Circlip for fan cowl
8	1	DE oil seal	23	3	Connection link	38	3	Bolt for fan cowl
9	1	Wave washer	24	18	Flat washer for terminal stud	39	3	Spring washer for fan cowl
10	1	DE bearing	25	2	Bolt for terminal block	40	1	Flat washer for fan cowl
11	1	Key	26	2	Spring washer for terminal block	41	1	Fan cowl
12	1	Roter shaft	27	1	Both for internal earth			
13	1	Terminal block	28	1	Spring washer for internal earth			
14	1	Terminal box	29	1	Flat washer for internal earth			
15	4	Spring washer for terminal box	30	1	Eyebolt			

Electrim™

Three Phase Induction Motor