

PH: 1300 550 722

FX: 1300 550 723

EMAIL: trojan@trojan-power.com

WEB: www.trojan-power.com

TROJAN®

ELECTRIC MOTORS



Phone : 1300 550 722

TROJAN®

Fax : 1300 550 723

CONTENTS

> STANDARD COMPLIANCE	3
> IP RATING	4
> MOUNTING ARRANGEMENTS	5
> WIRING CONNECTIONS	6
> GENERAL SPECIFICATIONS	7-8
> BEARING SIZING AND REGREASING INFORMATION	9
> BEARING AND OIL SEAL INFORMATION	10
> PERFORMANCE DATA - 2 POLE MOTORS	11
> PERFORMANCE DATA - 4 POLE MOTORS	12
> PERFORMANCE DATA - 6 POLE MOTORS	13
> PERFORMANCE DATA - 8 POLE MOTORS	14
> DIMENSIONS CAST IRON MOTORS	15-16
> DIMENSIONS ALUMINIUM MOTORS	17-18

STANDARD COMPLIANCE

TROJAN motors are designed and manufactured to meet the most arduous service conditions such as mining, petrochemical, marine or tropical environments. The motors are made from high quality materials and workmanship, to survive in the toughest conditions.

INTERNATIONAL STANDARDS

- International Electro-technical Commission-IEC 72.
- Australian Standards-AS 1359.
- British Standards-Bs 5000 and BS 4999.
- The requirements for European "CE" marking.

INTRODUCTION AND LIST OF PARTS
AS 1359-0. BS 4999-0

DEFINITIONS
IEC-34-1. AS 1359-1. BS 4999-116.

DIMENSION SYMBOLS
S 1359-2. BS 4999-103.

DIMENSION OF ROTATION AND MARKINGS
OF TERMINALS
IEC 34-8. AS 1359-3. BS 4999-108.

RATING PLATE MARKINGS
IEC34-8. AS 1359-4.

DESIGNATIONS AND DIMENSIONS
IEC 72AS 1359-10. BS 4999-141.

CLASSIFICATION OF TYPES OF ENCLOSURE
IEC 34-5. AS 1359-20. BS 4999-105 and AS 1939.

CLASSIFICATION OF METHODS OF COOLING
IEC 34-6. AS 1359-21. BS EN69934-6.

MOUNTING ARRANGEMENTS AND TYPES
OF CONSTRUCTION
IEC 34-7. AS 1359-22. BS EN60034-7.

DUTY AND RATINGS
IEC 34-1. AS 1359-30. BS EN60034-2 and BS 5000-10.

SERVICE AND OPERATING CONDITIONS
IEC 34-1. AS 1359-31.

TEMPERATURE LIMITS AND MEASUREMENTS
OF TEMPERATURE
IEC 34-1. AS 1359-32.

METHODS OF DETERMINING LOSSES AND
EFFICIENCY
IEC 34-1. AS 1359-33. BS 4999-102.

MEPS COMPLIANCE
AS 1359-5.2000

MEPS COMPLIANCE TEST METHODS
AS 1359-102.1

GENERAL CHARACTERISTICS
IEC34-12. AS 1359-41. BS EN60034-1.

VIBRATION LIMITS
IEC 34-14. AS 1359-50. BS 4999-142.

NOISE LEVEL LIMITS
IEC 34-9. AS 1359-51. BS EN60034-9.

TESTS
IEC 34-9. AS 1359-60. BS 4999-143.

TOLERANCES
IEC 34-1. AS 1359-69.

All **TROJAN** motors are protected to a minimum of IP55, according to IEC Standard IP529

IP55 provides complete protection against accidental touch of parts under power or internal moving parts with tools, wires, or similar objects. Protected against intrusion of dust particles is not completely prevented, but dust particles will not deposit in such quantity that performance is compromised. Water jets from all directions have no measurable negative effect.

Higher IP ratings are available on request.

Classifies Protection against Touch and Intrusion of Foreign Particles

Code of 1st digit	Description	Level of Protection
0	No Protection	No protection against accidental touch of parts under power or moving or stationary parts.
1	Protection against large foreign parts	Protection against accidental touch of parts under power in large areas or internal moving parts. Protected against intrusion of particles larger than 50mm diameter
2	Protection against medium foreign particles	Protection against accidental touch with fingers of parts under power or moving internal parts. Protected against intrusion of particles larger than 12mm diameter.
3	Protection against small foreign particles	Protection against accidental touch of parts under power or internal moving part with tools, wires or similar objects with thickness of larger than 2.5mm. Protected against intrusion of particles larger than 1mm.
4	Protection against grain-sized particles	Protection against accidental touch of parts under power or internal moving parts with tools, wires, or similar objects with a size larger than 1mm. Protected against intrusion of parts larger than 1mm.
5	Protection against dust deposit	Complete protection against accidental touch of parts under power or internal moving parts with tools, wires, or similar objects. Protected against intrusion of dust particles is not completely prevented, but dust particles will not deposit in such quantity that performance is compromised.
6	Protection against intrusion	Complete protection against accidental touch of parts under power or internal moving parts. Protected against detrimental dust deposition. Intrusion of dust is not completely prevented, but will not have a detrimental effect on the performance of the device.

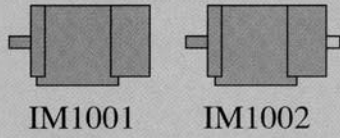
Classifies Protection against Intrusion of Water

Code of 2nd digit	Description	Level of Protection
0	No Protection	No designated protection.
1	Protection against vertical water droplets	Water droplets falling vertically onto the device have not negative effect.
2	Protection against oblique falling droplets	Water droplets falling at an angle of not more than 15° from the vertical onto the device have no negative effect.
3	Protection against water splash	Water, falling at an angle of no more than 60° from vertical has no negative effect on the device.
4	Protection against water spray	Water spray from all directions has no negative effect on the device.
5	Protection against water jet	Water jet from all directions has no measurable negative effect.
6	Protection against flooding	Water has no negative effect during temporarily flooding.
7	Protection against submersion	Water will not penetrate for a defined period and depth of submersion.
8	Protection while permanently submersed	Water will not penetrate for an indefinite period of submersion at a defined depth.

MOUNTING ARRANGEMENTS

FOOT MTG HORIZ

B3



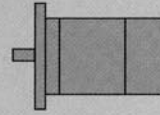
IM1001

IM1002

FLANGE MTG

B5

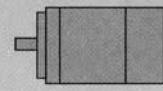
IM3001



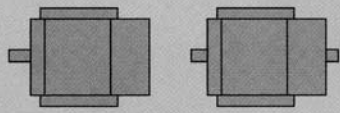
FACE MTG

B14

IM3601



B6

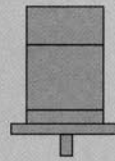


IM1051

IM1052

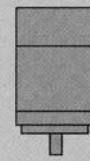
V1

IM3011

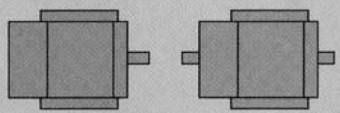


V18

IM3611



B7

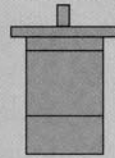


IM1061

IM1062

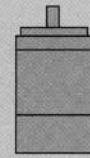
V3

IM3031

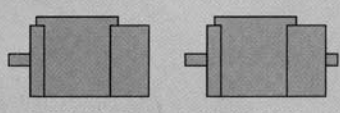


V19

IM3631



B8



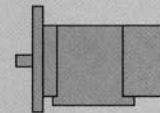
IM1071

IM1072

FOOT/FLANGE MTG

B3/B5

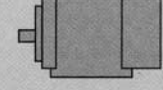
IM2001



FOOT/FACE MTG

B3/B14

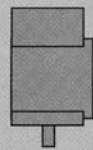
IM2101



FOOT MTG VERT

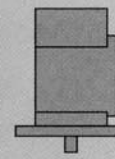
V5

IM1011



V1/V5

IM2011



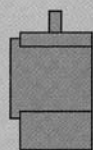
V5/V18

IM2111



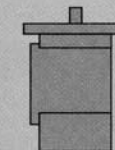
V6

IM1031



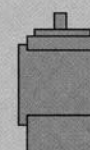
V3/V6

IM2031



V6/V19

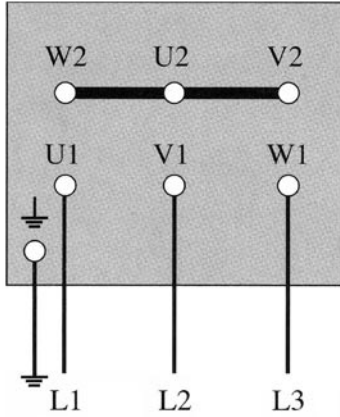
IM2131



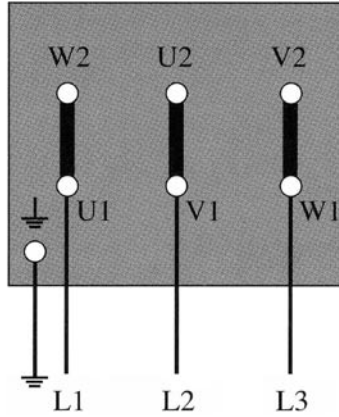
WIRING CONNECTIONS

Standard voltage is 415v 50Hz, with a tolerance of +/-10%. Voltages beyond these limits will cause a high winding temperature rise.

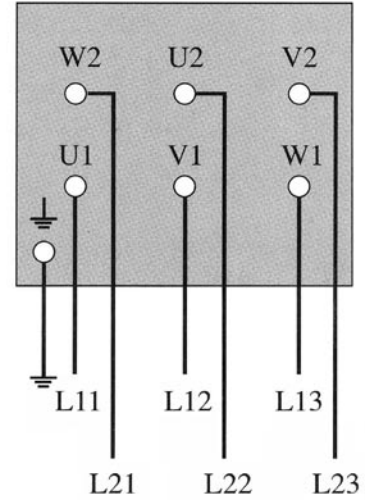
All motors have 6 terminals for Star and/or Delta connections.



Star connection



Delta connection



Connections to star-delta starter



GENERAL SPECIFICATIONS

- MDIC motors have cast iron stator frames, end shields and terminal boxes.
- MDIA motors have aluminium stator frames, terminal boxes and cast iron end shields.
- MDIA motors have bolt on feet, which can be located at 90 degree mounting locations, so that the terminal box can be on top or on either side.
- IP55 as a minimum-higher ratings are available on request. Care must be taken when mounting motors in a non-standard mounting position to maintain the IP rating of the motor.
- Cooling to ICOI41 up to 355 frames.
- All motors are available in B3 (IMIOOI), B3/5 (IM200I), and VI (IM3031) configuration. All standard motors up to 280 frame may be mounted in any direction, i.e. shaft up, shaft down, etc. They can also be mounted B5 (IM300I).
- B14A and B14B flanges are available up to 160-frame size.
- Standard motors are rated for continuous duty at full nameplate rating - S 1.
- Standard voltage is 415v 50Hz.
- Voltage tolerance is +/-10%. Voltages beyond these limits will cause a high winding temperature rise.
- **TROJAN** motors are designed for operation in high ambient temperatures of 40 deg C or more. The standard data relates to ambient up to 40 deg C. and altitudes below 1000 meters.
- Standard motors have Class F (155 deg C.) insulation, with a Class B (80 deg C.) temperature rise. Class H insulation motors (180 deg C.) are available on request only high quality polyester covered copper winding wire is used in conjunction with inorganic high temperature polyester varnish.
- Stator and rotor laminations are produced from low loss, double insulated, silicon electrical steel. All motors are designed for high efficiency and low temperature rise giving a long economical service life.
- In general **TROJAN** motors have high starting torques and low starting currents because the rotors have a double cage design which is pressure die cast in high purity aluminium.
- These motors have very low vibration levels due to high precision balancing of the rotors and fans. Most motors have vibration levels of less than 1 mm/sec.
- High quality vacuum degassed SKF or NSK bearings are used on motors. In general the bearings have C3 clearances and are preloaded with a wave washer on the drive end which increases bearing life and reduces bearing noise. The non-drive end bearing is locked to prevent shaft "float". Motors up to 132 frames have "ZZ" sealed for life bearing, while motors from 160 frames and above have open bearing with "flush through" greasing facilities. In line with current practice, motors up to 280 frames have deep groove ball bearing at both ends, while the 315 and 355 frame motors have a roller bearing on the drive end. Roller bearings can be fitted on the drive end of any motor on request.
- Recommended grease for re-greasing is Shell Alvania R3.
- Special bearing arrangements can be accommodated such as fitting angular contact, or 4-point contact QJ bearings, for thrust loads.
- All bearings are protected from the external environment with oil seals on the drive and non-drive end.
- Labyrinth seals can be fitted as an option for external, protection of bearings for 160 frames and above.
- Standard noise levels, (sound pressure at 1 meter), are well within the requirements of most standards, and are generally below 80 dB (A) for small motors and 85 dB (A) for large motors.
- All standard motors are designed to run in either direction.
- Shafts are made from high quality carbon steel.
- Stator frames are made of T200 grade cast iron from 80 frame upwards 80 to 132 are also available in aluminium.
- End shields for all motors are made from T200 cast iron.
- Terminal boxes are made from aluminium for MDIA motors, and cast iron for MD 1 C motors. For 160 frame and above, all terminal boxes are cast iron. All terminal boxes are top mounted.
- Cable gland entries are metric as standard and the thread sizes are specified with the dimensional data in this brochure.
- Fans are made from glass-reinforced polypropylene for small motors up to 280 frame size. The 315/355 frame motors

have aluminium.

- Fan Cowl's are made from pressed steel for all motors up to 315 frame, and from cast iron for 355 frame.
- Motors can be supplied with force ventilation systems for variable (VVF) frequency applications.
- Rain hoods are available for motors mounted shaft down.
- RTD's or thermostats can be supplied as an option.
- Anti-condensation heaters can be fitted as an option to all motors and recommended for IP56 and IP66 motors.
- All motors can be supplied with separate terminal boxes for heaters and/or thermistors.
- All bolts and screws are zinc electroplated as protection against corrosion.
- All cast iron motor parts are cleaned and primed (polyvinylbutyral and epoxy) to 25 microns or more before machining. Aluminium parts are painted with etch-primer on external surfaces. The final topcoat of paint is air-drying enamel. Based on epoxy polymer resins to 25 micron or more in thickness.
- 80-180 frames are available in aluminium and cast iron 200-355 frames are only available in cast iron.

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 cool down 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.

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);

Limited temperature for insulating material according to 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.





BEARING SIZING AND REGREASING INFORMATION

Standard: "sealed for life" double shielded "ZZ" bearings

Clearance C3 not regreasable

Regreasable open bearings

C3 with automatic grease relief

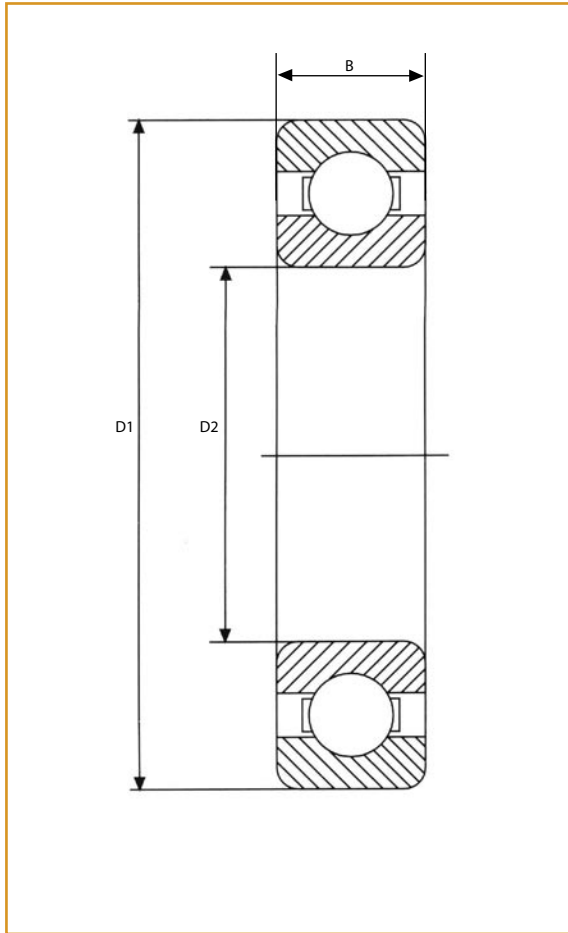
IEC FRAME SIZE	BEARING DRIVE END (DE)	BEARING NON DRIVE END (NDE)	REGREASING PERIOD n<3600	HOURS FOR OPERATING n<1800	TEMPERATURE UP TO n<1200	QUANTITY OF GREASE IN BEARING CHAMBER IF OPEN (GM)
MD1A71	6202ZZ C3	6202ZZ C3	30000	30000	30000	2
MD1A80	6204ZZ C3	6204ZZ C3	30000	30000	30000	3.5
MD1A90	6205ZZ C3	6205ZZ C3	28000	30000	30000	4
MD1A100	6206ZZ C3	6206ZZ C3	25000	30000	30000	6
MD1A112	6306ZZ C3	6306ZZ C3	20000	20000	30000	7
MD1A132	6308ZZ C3	6308ZZ C3	15000	20000	30000	10.5
MD1A160	6309 C3	6309 C3	6000	12000	18000	113
MD1A180	6311 C3	6311 C3	4000	11000	16000	15
MD1A200	6312 C3	6312 C3	3500	8500	13000	20
MD1A200	NU312	6312 C3	1800	4250	6500	20
MD1A225	6313 C3	6313 C3	3000	6000	9000	22
MD1A225	NU313	6313 C3	1500	3000	4500	22
MD1A250	6314 C3	6314 C3	2000	5000	9000	23
MD1A250	NU314	6314 C3	1000	2500	4500	23
MD1A280	6316 C3	6316 C3	1200	4000	6000	30
MD1A280	NU316C3	6316 C3	600	2000	3500	30
MD1A315 2P	6217 C4	6317 C4	1200	-	-	30
MD1A315 4-8P	NU319C3	6319 C3	-	2000	3000	45
MD1A355 2P	6217 C4	6217 C4	1200	-	-	30
MD1A3554-8P	NU324C3	6324 C3	-	1400	2200	60

NOTES:

1. Recommended greases for
 - Frames 71-132 SKF LGMT 2
 - Frames 160-355 LS3 or
 - Shell Alvania R3
2. Vertical motors should be greased at half the time specified above for horizontal motors.
3. It is recommended that "Sealed for life" bearings are replaced with new bearings when they are due for regreasing. It is possible to remove the shield from the out board side of these bearings, clean them out, and repack them with fresh grease, but it is not recommended. (The grease is retained between the inbore bearing shield and the oil seal in the endshield, as all motors are IP55 and fitted with an oil seal at both ends).

BEARING AND OIL SEAL INFORMATION

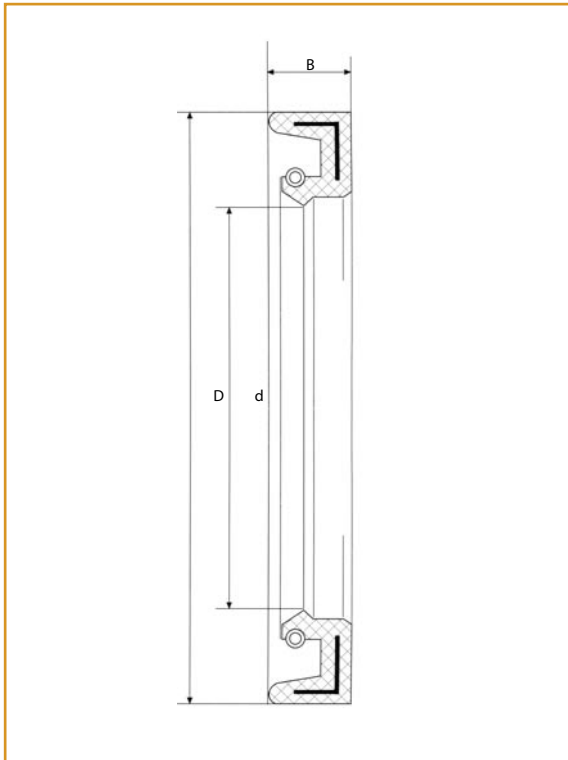
BEARING DATA AND DIMENSIONS



FRAME	DRIVE END	NON DRIVE END	D1	D2	B
71	6202ZZ C3	6202ZZ C3	15	35	11
80	6204ZZ C3	6204ZZ C3	20	47	14
90	6205ZZ C3	6205ZZ C3	25	52	15
100	6206ZZ C3	6206ZZ C3	30	62	16
112	6306ZZ C3	6306ZZ C3	30	72	19
132	6308ZZ C3	6308ZZ C3	40	90	23
160	6309 C3	6309 C3	45	100	25
180	6311 C3	6311 C3	55	120	29
200	6312 C3	6312 C3	60	130	31
225	6313 C3	6313 C3	65	140	33
250	6314 C3	6314 C3	70	150	35
280	6316 C3	6316 C3	80	170	39
315 2POLE(HORIZONTAL)	6217 C4	6217 C3	85	150	28
315 2POLE (VERTICAL)	6217 C4	7217	85	150	28
315 4-8POLE(HORIZONTAL)	NU319	6319 C3	95	200	45
315 4-8POLE (VERTICAL)	NU319	7319	95	200	45
355 2POLE (HORIZONTAL)	6217 C4	6217 C3	85	150	28
355 2POLE (VERTICAL)	6217 C4	7317	85	150	28
355 4-8POLE (HORIZONTAL)	NU324	6324 C3	120	260	55
355 4-8POLE (VERTICAL)	NU324	7324	120	260	55

10

OIL SEAL DATA AND DIMENSIONS



FRAME	d	DRIVE END D	B	d	NON DRIVE END D	B
71	15	30	5	15	30	5
80	20	35	5	20	35	5
90	25	40	5	25	40	5
100	30	52	7	30	52	7
112	30	52	7	30	52	7
132	40	62	5	40	62	5
160	45	65	8	45	65	8
180	55	75	8	55	75	8
200	60	80	8	60	80	8
225	65	90	10	65	90	10
250	70	95	10	70	95	10
280	80	100	10	80	100	10
315 2POLE	100	130	12	100	130	12
315 4-8POLE	115	140	12	115	140	12
355 2POLE	100	130	12	100	130	12
355 4-8POLE	140	170	12	140	170	12

PERFORMANCE DATA - 2 POLE MOTORS

2 POLE - 3000 RPM SYNCHRONOUS SPEED 50 Hz

MOTOR TYPE	RATED OUTPUT kW	FULL LOAD SPEED r/MIN	INL 400V A	IFL 380V A	IFL 400V A	IFL 415V A	IST FL	EFFICIENCY			POWER FACTOR			FULL LOAD TORQUE N.min	TST TFL	TPU TFL	TM TFL	Mofl J kg.m2	NOISE LEVEL 1M dB(A)	NET WEIGHT kg	
								100%FL	75%FL	50%FL	100%FL	75%FL	50%FL							MD1C	MD1A
MD1A63-2	0.18	2780	0.32	0.5	0.5	0.5	4.7	64	63	59	0.81	0.75	0.68	0.82	2.5	2	3	0.0003	53	7	
MD1A711-2	0.37	2820	0.6	1	0.93	0.9	5	71	70.8	68	0.81	0.75	0.69	1.25	2.4	2	2.9	0.0006	57	10	
MD1A712-2	0.55	2830	0.7	1.4	1.3	1.2	5.5	75	74	69	0.82	0.75	0.68	1.85	3	2.2	3.3	0.0007	60	10	
MD1C(MD1A)801-2	0.75	2840	0.95	1.8	1.7	1.7	5.5	75	74	71	0.83	0.8	0.67	2.5	2.4	1.8	2.6	0.0008	61	19	11
MD1C(MD1A)802-2	1.1	2840	1.3	2.6	2.4	2.3	5.5	78	77.8	75	0.84	0.79	0.67	3.7	2.4	1.9	2.6	0.0009	64	20	12
MD1C(MD1A)905-2	1.5	2840	1.5	3.4	3.2	3.1	6	79	78.9	77	0.85	0.81	0.71	5.04	2.9	2.2	3.1	0.0012	72	26	16
MD1C(MD1A)90L-2	2.2	2840	2	4.8	4.6	4.4	6	82	81.8	80	0.85	0.81	0.72	7.4	2.8	2.3	3	0.0014	71	28	18
MD1C(MD1A)100L-2	3	2850	2.3	6.3	6	5.8	7	83	83.1	82	0.87	0.84	0.75	10	3	2.4	3.4	0.0039	75	43	25
MD1C(MD1A)112M-2	4	2870	2.7	7.9	7.5	7.3	6.5	85	85	84	0.9	0.87	0.8	13	2.5	2	3	0.0055	76	47	31
MD1C(MD1A)112M2-2	5.5	2890	3.5	11	10.2	9.8	7.5	86.5	86.7	86	0.9	0.88	0.8	18	2.8	2.2	3.2	0.007	78	55	35
MD1C(MD1A)132S1-2	5.5	2900	3.9	11	10.3	9.9	7.5	86	85.1	86.5	0.9	0.88	0.79	18	2.9	2.3	3.4	0.0109	80	70	48
MD1C(MD1A)132S2-2	7.5	2900	4.7	15	13.8	13	7.5	87	86.7	84.8	0.9	0.87	0.8	25	2.7	2.2	3.3	0.013	80	73	51
MD1C(MD1A)132M-2	11	22900	6.1	21	20	19	7.5	88	88.2	87.5	0.9	0.88	0.8	36	2.5	2.1	3	0.028	83	84	63
MD1C(MD1A)160M1-2	11	2930	6	21	20.2	20	7.2	88.4	88.3	87.8	0.89	0.87	0.8	36	2.2	1.9	2.9	0.038	82	125	100
MD1C(MD1A)160M2-2	15	2930	8.4	29	27.3	26	7.2	89	88.9	87.7	0.89	0.87	0.8	49	2.3	1.9	3	0.045	83	135	107
MD1C(MD1A)160L-2	18.5	2930	8.9	35	33	32	7.5	90	89.8	87.3	0.9	0.88	0.82	60	2.4	1.9	2.9	0.055	82	153	123
MD1C(MD1A)180M-2	22	2940	12.1	41	39	38	7.5	90	89.9	87.3	0.9	0.88	0.81	71	2.5	1.6	3.1	0.075	84	175	146
MD1C(MD1A)200L1-2	30	2940	14.8	56	53	51	6.5	91.1	90.8	89.3	0.9	0.87	0.82	97	2.3	1.8	2.7	0.124	84	265	220
MD1C(MD1A)200L2-2	37	2950	16.8	68	64.5	62	7	92	91.7	89.6	0.9	0.88	0.83	120	2.5	1.8	2.9	0.139	88	285	240
MD1C225M-2	45	2950	21	81	77.3	75	7	92.3	91.9	89.5	0.91	0.9	0.86	145	2.5	2.1	3.1	0.233	90	336	
MD1C250M-2	55	2960	32	100	95.4	92	7.5	92.5	92.7	89.8	0.9	0.88	0.82	177	2.6	2	3.4	0.312	90	430	
MD1C250M2-2	75	2970	36.5	135	129	124	7	93.5	93	92.1	0.9	0.87	0.81	241	2.2	1.7	3.1	0.412	90	505	
MD1C280S-2	75	2970	36	136	129	124	7	93.4	92.7	90.1	0.9	0.89	0.84	241	2.2	1.7	3	0.597	89	535	
MD1C280M-2	90	2970	38.5	161	153	147	7	93.5	93	91.8	0.91	0.9	0.88	289	2.1	1.8	3.1	0.675	90	577	
MD1C280M2-2	110	2970	41	193	184	177	7	94	93.9	93.1	0.92	0.92	0.9	353	2.7	1.8	3	0.86	90	620	
MD1C315S-2	110	2975	42.4	195	185	178	7	94.1	93.8	92.7	0.91	0.9	0.88	353	2.4	2	2.7	1.18	89		
MD1C315M-2	132	2975	56	231	219	211	7	94.5	94.4	92.9	0.92	0.91	0.87	423	2.4	2	2.8	1.55	89		
MD1C315L1-2	160	2975	63	279	265	258	7.5	94.6	94.3	93.2	0.92	0.91	0.88	513	2.7	3	3	1.76	89		
MD1C315L2-2	200	2975	69	348	331	319	7.5	94.8	94.7	93.3	0.92	0.82	0.75	642	2.7	3.1	3.1	2.02	90		
MD1C355M-2	250	2965	157	470	446	430	6.5	95.1	94.2	92.3	0.85	0.83	0.76	800	1.8	2.5	2.5	3.56	94		
MD1C355L-2	315	2965	188	582	553	533	6.5	95.6	95	96.5	0.86	0.83	0.74	1007	1.8	2.6	2.6	4.15	94		

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

PERFORMANCE DATA - 4 POLE MOTORS

4 POLE - 1500 RPM SYNCHRONOUS SPEED 50 Hz

MOTOR TYPE	RATED OUTPUT kW	FULL LOAD SPEED r/MIN	INL 400V A	IFL 380V A	IFL 400V A	IFL 415V A	IST FL	EFFICIENCY			POWER FACTOR			FULL LOAD TORQUE N.min	TST TFL	TPU TFL	TM TFL	Mofl J kg.m2	NOISE LEVEL 1M dB(A)	NET WEIGHT kg	
								100%FL	75%FL	50%FL	100%FL	75%FL	50%FL							MD1C	MD1A
MD1A632-4	0.18	1370	0.45	0.6	0.57	.55	4	63	63	58	0.72	0.62	0.53	1.25	2.2	2	2.5	0.0006	49	7	
MD1A712-4	0.37	1370	0.75	1.1	1	1	4.3	69	71	70	0.74	0.65	0.53	2.58	2.3	2	2.5	0.0016	50	10	
MD1C(MD1A)801-4	0.55	1410	1	1.5	1.46	1.4	4.5	72.5	73	69	0.75	0.67	0.54	3.7	2.2	1.9	2.4	0.002	55	18	10
MD1C(MD1A)802-4	0.75	1410	1.4	2.1	2	1.9	4.84	72.6	73.1	69	0.755	0.66	0.54	5.08	2.1	1.8	2.4	0.002	55	19	11
MD1C(MD1A)905-4	1.1	1410	1.8	2.9	2.7	2.6	5	76	77	75	0.77	0.68	0.55	7.45	2	1.8	2.3	0.0021	58	25	15
MD1C(MD1A)90L-4	1.5	1410	2.2	3.7	3.5	3.4	4.7	79	80.5	79.5	0.785	0.71	0.57	10.16	2.4	2	2.5	0.003	58	26	17
MD1C(MD1A)100L1-4	2.2	1410	3	5.2	4.9	4.8	5.5	80	80.7	79.2	0.805	0.72	0.6	14.9	2.5	2.1	2.7	0.007	61	35	25
MD1C(MD1A)100L2-4	3	1410	3.7	8.8	6.5	6.2	5.7	82.5	83.3	82	0.81	0.74	0.61	20.3	2.4	2.1	2.9	0.007	61	38	28
MD1C(MD1A)112M-4	4	1430	4.5	8.9	8.4	8.1	6	89.6	84.7	83.5	0.82	0.76	0.65	26.7	2.5	2.1	2.9	0.0095	65	50	35
MD1C(MD1A)132S-4	5.5	1445	5.6	11.7	11.2	10.7	6.5	86.3	87	85.2	0.825	0.77	0.66	36.3	2.4	2	3	0.0214	71	70	50
MD1C(MD1A)132M-4	7.5	1445	6.5	15.3	14.6	14	7	87.5	88	87	0.85	0.8	0.7	49.6	2.5	2	2.8	0.0296	71	80	58
MD1C(MD1A)132M2-4	11	1445	8.3	22.2	21.1	20.3	6.5	88.6	89.2	88.1	0.85	0.81	0.71	72.7	2.2	1.8	2.6	0.062	71	90	67
MD1C(MD1A)160M-4	11	1445	8.5	22.4	21.3	20.5	7	88.7	87.5	83.3	84	81	0.74	72.7	2.1	1.8	2.6	0.075	75	125	100
MD1C(MD1A)160L-4	15	1445	12.5	30	28.6	27.6	7.5	90	88.7	83.5	0.84	0.8	0.75	98.4	2.6	2	3.3	0.92	75	147	120
MD1C(MD1A)180M-4	18.5	1470	13.5	36	34.3	33	7	90	91.2	89	0.865	0.82	0.73	120.2	2.3	1.9	3.2	0.139	76	170	134
MD1C(MD1A)180L-4	22	1470	14.8	41.7	39.7	38.2	7.5	91	91.1	89.8	0.88	0.84	0.75	143	2.4	2	3.1	0.158	76	185	144
MD1C(MD1A)200L-4	30	1470	18.5	56.3	53.5	51.6	6.5	92	91.9	90.8	0.88	0.86	0.78	195	2.2	1.8	3	0.262	79	285	230
MD1C225S-4	37	1475	23	70.6	67	64.7	6.6	92	92	91	0.865	0.85	0.77	239	2.1	1.7	2.5	0.406	81	338	
MD1C225M-4	45	1475	27	85	81	78	6.7	92.4	92.5	91.3	0.87	0.85	0.78	291	2.3	1.8	2.9	0.469	81	358	
MD1C250M-4	55	1475	34	104	98	95	6.5	92.8	92.7	91.6	0.87	0.84	0.78	355	2.4	1.9	2.7	0.66	83	450	
MD1C250M2-4	75	1480	48	140	133	129	6.5	93.8	93.7	93.5	0.865	0.83	0.76	484	2.2	1.7	2.9	0.88	83	535	
MD1C280S-4	75	1480	46	138	132	127	6	93.5	93.2	91.7	0.88	0.86	0.8	484	2.1	1.7	2.9	1.12	84	563	
MD1C280M-4	90	1480	45	163	155	150	6.5	94	93.8	92.8	0.89	0.87	0.81	581	2.3	1.7	2.9	1.46	86	635	
MD1C280M2-4	110	1485	55	199	189	182	6.4	94.3	94.2	93.5	0.89	0.88	0.82	710	2.4	1.9	2.6	2.68	86	720	
MD1C315S-4	110	1485	53	201	191	184	6	94.4	94.2	94	0.88	0.88	0.83	707	2	1.6	2.9	3.11	87	1125	
MD1C315M-4	132	1485	69	244	231	223	7	94.6	94.5	93	0.87	0.86	0.82	849	1.9	1.5	3.1	3.29	88	1175	
MD1C315L1-4	160	1485	84	296	281	271	6	95.5	95	94	0.86	0.85	0.79	1029	2.3	1.7	3	3.79	88	1240	
MD1C315L2-4	200	1485	104	360	342	329	5	96	95.5	94.4	0.88	0.87	0.8	1286	2.5	1.9	2.7	4.49	89	1340	
MD1C355M-4	250	1485	106	444	422	407	6.5	95	94.5	93.1	0.9	0.89	0.86	1607	2.1	1.7	3.1	5.67	89	2020	
MD1C355L-4	315	1485	108	551	523	504	6.3	95.5	95.4	94.1	0.91	0.9	0.88	2025	2	1.6	3.1	6.66	90	2180	

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

PERFORMANCE DATA - 6 POLE MOTORS

6 POLE - 1000 RPM SYNCHRONOUS SPEED 50 Hz

MOTOR TYPE	RATED OUTPUT kW	FULL LOAD SPEED r/MIN	INL 400V A	IFL 380V A	IFL 400V A	IFL 415V A	IST FL	EFFICIENCY			POWER FACTOR			FULL LOAD TORQUE N.min	TST TFL	TPU TFL	TM TFL	Mofl J kg.m2	NOISE LEVEL 1M dB(A)	NET WEIGHT kg	
								100%FL	75%FL	50%FL	100%FL	75%FL	50%FL							MD1C	MD1A
MD1C(MD1A)801-6	0.37	920	0.8	1.2	1.2	1.1	3.5	63.8	63	55	0.72	0.62	0.51	3.8	1.8	1.6	2	0.0023	50	18	11
MD1C(MD1A)802-6	0.55	920	1.1	1.7	1.6	1.5	3.5	69	70	63	0.72	0.62	0.5	5.7	1.8	1.6	2	0.003	50	20	14
MD1C(MD1A)90S-6	0.75	920	1.5	2.2	2.1	2	4	71.5	72.4	67	0.72	0.62	0.51	7.8	1.9	1.7	2.2	0.003	55	23	16
MD1C(MD1A)90L-6	1.1	920	2	3.1	3	2.9	4	73	74.2	70	0.73	0.64	0.51	11.4	2.1	1.8	2.5	0.0035	60	26	19
MD1C(MD1A)100L-6	1.5	920	2.5	4	3.8	3.7	4.5	75.8	76.1	72	0.75	0.66	0.53	15.4	2.3	1.9	2.7	0.0069	65	34	23
MD1C(MD1A)112M-6	2.2	935	3.1	5.6	5.3	5.1	4.5	78.5	78.7	76	0.76	0.73	0.6	22.4	2	1.7	2.3	0.0138	69	47	30
MD1C(MD1A)132S-6	3	960	4.7	7.4	7	5.8	5.5	81.4	81.1	77	0.76	0.68	0.55	29.7	2	1.7	2.4	0.02285	69	53	43
MD1C(MD1A)132M1-6	4	960	5.8	9.6	9.1	8.8	8	83.4	83.2	80	0.78	0.68	0.56	39.6	2.2	1.8	3	0.035	66	71	54
MD1C(MD1A)132M2-6	5.5	960	7.7	12.8	12.2	11.8	6.5	84.5	84.3	81	0.77	0.89	0.56	54.4	2.2	1.9	2.5	0.045	66	81	59
MD1C(MD1A)160M-6	7.5	965	8.1	16.9	16.1	15.5	5.5	87.5	88.1	87	0.77	0.71	0.6	74.2	2	1.7	2.4	0.088	72	122	88
MD1C(MD1A)160L-6	11	965	10.7	24.2	23	22.2	6	83.4	89	88	0.78	0.75	0.61	108.8	2.1	1.7	2.3	0.115	72	147	114
MD1C(MD1A)180L-6	15	970	14	31.8	30.2	29.1	6	89.6	88.9	87.5	0.81	0.77	0.64	147.6	2.3	1.7	2.3	0.207	72	180	144
MD1C(MD1A)200L1-6	18.5	975	17	38	36.2	35	6	90	89.8	88.5	0.82	0.77	0.55	181.2	2.1	1.7	3	0.315	72	260	207
MD1C(MD1A)200L2-6	22	975	16.8	44.2	42	40.5	6	90	90.1	89	0.84	0.8	0.7	215.5	2.1	1.6	2.6	0.35	72	270	210
MD1C225M-6	30	980	21	59.3	56.3	54.3	5.5	91.5	91.4	90.5	0.84	0.81	0.72	292.3	2.4	1.6	2.7	0.547	72	330	
MD1C250M-6	37	980	25	70	66.7	64	6.6	92.1	91.8	90	0.87	0.82	0.75	360.5	2.2	1.8	2.7	0.835	77	425	
MD1C280S-6	45	985	27	85.4	81	78	6.6	92	92.2	91	0.87	0.83	0.75	436	2.4	1.7	3.2	1.4	77	520	
MD1C280M-6	55	985	30	104	99	95	6.8	92.6	93	92.3	0.87	0.85	0.8	533	2.2	1.6	3	1.65	77	570	
MD1C280M2-6	75	985	48	138	131	127	6.8	93.6	93	91.9	0.88	0.85	0.79	727	2.8	1.8	3.1	3.2	80	670	
MD1C315S-6	75	985	45	142	135	130	6	94.2	94.1	93.2	0.85	0.83	0.78	727	2.2	1.7	2.9	4.1	80	1070	
MD1C315M-6	90	985	51	170	162	156	6	94.4	94.3	93.3	0.85	0.83	0.78	872	2.2	1.6	3.2	4.28	80	1120	
MD1C315L1-6	110	985	57	209	198	191	6	94.3	95.1	94	0.85	0.84	0.79	1066	2.2	1.7	3	5.45	80	1200	
MD1C315L2-6	132	990	69	244	232	223	6.5	94.5	94.7	94.1	0.87	0.85	0.8	1273	2.3	1.5	2.8	6.12	80	1290	
MD1C355M1-6	160	990	93	291	276	266	6.8	95	95	93.3	0.88	0.86	0.81	1543	1.8	1.4	2.5	8.85	83	1940	
MD1C355M2-6	200	990	94	360	342	329	6.5	96	96	95	0.88	0.86	0.81	1929	2	1.5	2.4	9.55	83	2040	
MD1C355L-6	250	990	108	445	422	407	6	96	96	94.8	0.89	0.87	0.82	2411	1.8	1.4	2.4	10.63	83	2220	

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

PERFORMANCE DATA - 8 POLE MOTORS

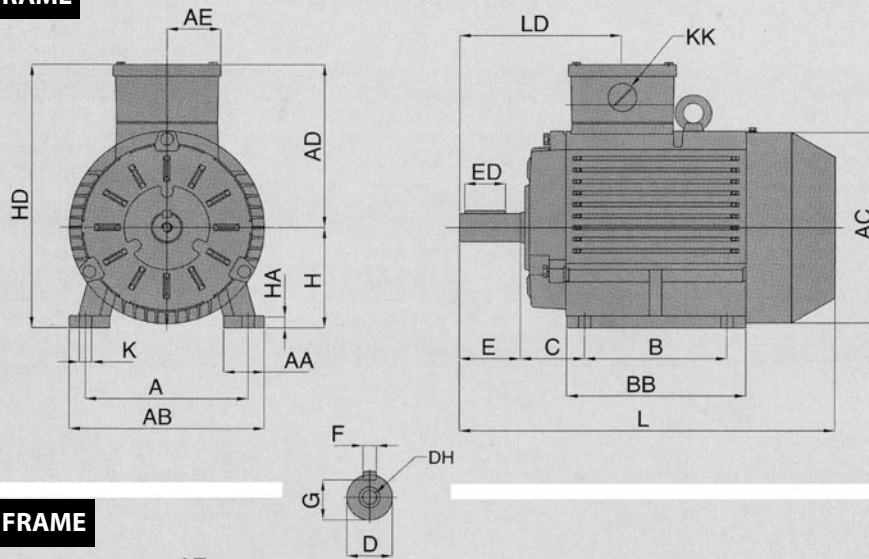
8 POLE - 750 RPM SYNCHRONOUS SPEED 50 Hz

MOTOR TYPE	RATED OUTPUT kW	FULL LOAD SPEED r/MIN	INL 400V A	IFL 380V A	IFL 400V A	IFL 415V A	IST FL	EFFICIENCY			POWER FACTOR			FULL LOAD TORQUE N.min	TST TFL	TPU TFL	TM TFL	Mofl J kg.m2	NOISE LEVEL 1M dB(A)	NET WEIGHT kg	
								100%FL	75%FL	50%FL	100%FL	75%FL	50%FL							MD1C	MD1A
MD1C(MD1A)801-8	0.18	650	0.5	0.75	0.72	0.7	3.2	59	54	44	0.62	0.56	0.45	2.6	2	1.8	2.3	0.002	52	19	13
MD1C(MD1A)802-8	0.25	650	0.7	1	0.98	0.95	3.3	60.3	54.5	44.5	0.61	0.54	0.45	3.6	2	1.8	2.4	0.003	52	20	14
MD1C(MD1A)90S-8	0.37	670	1	1.42	1.3	1.3	3.4	65	64.5	56	0.61	0.53	0.43	5.3	1.9	1.7	2.2	0.004	56	30	18
MD1C(MD1A)90L-8	0.55	670	1.5	2	1.9	1.87	3.5	68.1	66.6	59	0.6	0.51	0.42	7.8	1.9	1.7	2.2	0.004	56	33	19
MD1C(MD1A)100L1-8	0.75	690	1.7	2.4	2.26	2.18	3.6	70.5	70	63	0.68	0.56	0.45	10.4	1.9	1.7	2.3	0.008	59	35	21
MD1C(MD1A)100L2-8	1.1	690	2.4	3.3	3.15	3.04	3.7	73	73.5	69	0.69	0.59	0.48	15.2	2	1.8	2.4	0.011	59	37	23
MD1C(MD1A)112M1-8	1.5	690	3	4.3	4.1	4	4	76.5	77	74	0.69	0.59	0.45	20.7	2.3	1.9	2.5	0.017	60	47	32
MD1C(MD1A)112M2-8	2.2	690	3.6	6.1	5.8	5.6	4.5	77.5	77.2	74	0.71	0.6	0.5	30.4	2.1	1.8	2.4	0.017	60	50	35
MD1C(MD1A)132S-8	2.2	710	3.7	5.8	5.5	5.3	4.7	79.5	79.6	77.5	0.73	0.64	0.51	29.6	2.1	1.8	2.4	0.003	60	65	50
MD1C(MD1A)132M1-8	3	710	4.5	7.6	7.2	7	4.7	81	82	80	0.74	0.66	0.54	40.3	2.2	1.9	2.5	0.04	65	73	57
MD1C(MD1A)132M2-8	4	710	5.8	9.9	9.4	9.1	4.6	81.5	82	80.1	0.75	0.67	0.55	53.8	2.1	1.8	2.4	0.04	65	78	62
MD1C(MD1A)160M1-8	4	720	6	10.1	9.6	9.2	4.6	81.4	81.7	80	0.74	0.66	0.55	53	1.9	1.7	2.2	0.075	65	110	88
MD1C(MD1A)160M2-8	5.5	720	7.8	13.2	12.5	12.1	5	85.5	85.6	85.4	0.74	0.67	0.54	72.9	2.1	1.8	2.6	0.093	65	120	98
MD1C(MD1A)160L-8	7.5	720	9.5	17.5	16.7	16.1	6	86.6	87.4	86.3	0.75	0.68	0.55	99.5	2.2	1.9	2.6	0.125	65	145	121
MD1C(MD1A)180L-8	11	720	13	25.3	24	23	5.5	87	87.5	86.1	0.76	0.71	0.58	145.9	2.3	1.9	2.6	0.203	70	170	140
MD1C(MD1A)200L-8	15	730	16	33.7	32	31	5.6	89	89.3	88.2	0.76	0.71	0.59	1.96	2.2	1.8	2.5	0.34	73	265	215
MD1C225S-8	18.5	730	21	41.8	39.7	38.3	6	89.7	89.9	89	0.75	0.71	0.6	242	2.2	1.8	2.5	0.49	73	315	
MD1C225M-8	22	730	22	47.5	45	43.5	5.2	90.3	90.5	90	0.78	0.73	0.62	287.8	2.1	1.7	2.7	0.547	73	325	
MD1C250M-8	30	730	29	64	60.7	58.5	5.6	90.3	90.6	83.5	0.79	0.74	0.63	392	2.1	1.8	2.6	0.83	75	430	
MD1C280S-8	37	740	31	77.2	73.4	70.7	5.5	91	91.1	90	0.8	0.76	0.65	477	2.2	1.9	2.5	1.4	76	520	
MD1C280M-8	45	740	36	92.2	87.8	84.5	5.4	91.5	91.7	90.1	0.81	0.77	0.66	580	2.2	1.8	3.1	1.65	76	575	
MD1C280M2-8	55	740	44	111	106	102	6	92.6	92.1	91	0.81	0.78	0.67	709	2.1	1.9	2.7	3.65	79	670	
MD1C315S-8	55	740	43	111	105	101	5.6	93.3	93	92.5	0.81	0.78	0.66	709	1.9	1.6	2.5	4.8	79	1040	
MD1C315M-8	75	740	51	149	141	135	6	93.5	93.7	91.6	0.82	0.78	0.7	967	2.1	1.5	2.4	5.58	80	1150	
MD1C315L1-8	90	740	67	178	169	163	6.4	93.7	93.8	92.2	0.82	0.77	0.68	1161	2.3	1.8	2.5	6.37	80	1235	
MD1C315L2-8	110	740	76	217	206	199	6.3	94	94.1	92.5	0.82	0.79	0.71	1419	2.2	1.9	2.5	7.23	80	1325	
MD1C355M1-8	132	745	87	255	242	233	6	94.8	94.6	93.5	0.83	0.79	0.7	1692	1.7	1.1	2.2	10.55	79	1960	
MD1C355M2-8	160	745	106	308	293	282	5.5	95	95.1	94	0.83	0.8	0.72	2050	1.5	1.2	2.2	11.73	79	2020	
MD1C355L-8	200	745	115	374	356	343	5.3	95.5	95.2	94.5	0.85	0.84	0.76	2563	1.4	1.3	2.3	12.85	79	2190	

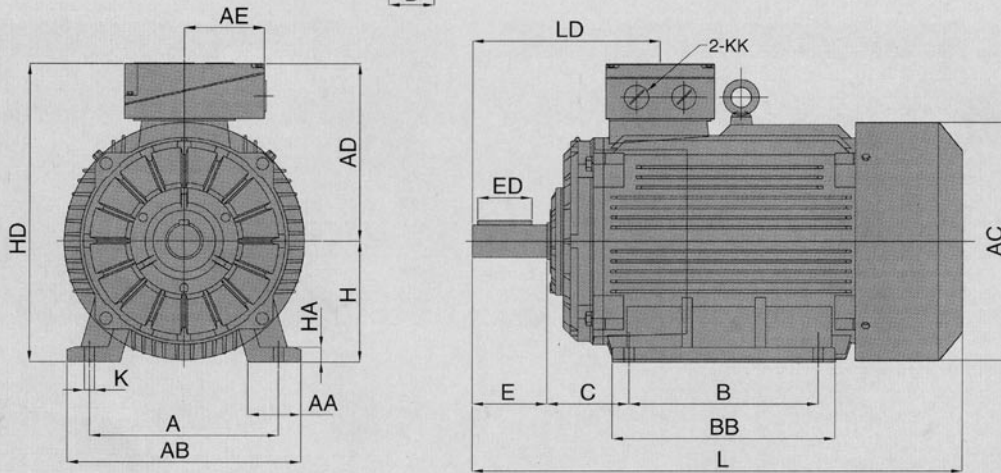
- INL = No Load Current
- IFL = Full Load Current
- TST = Locked Rotor Torque
- IST = Locked Rotor Current
- TPU = Pull Up Torque
- TM = Maximum Torque
- TFL = Full Load Torque

DIMENSIONS CAST IRON MOTORS

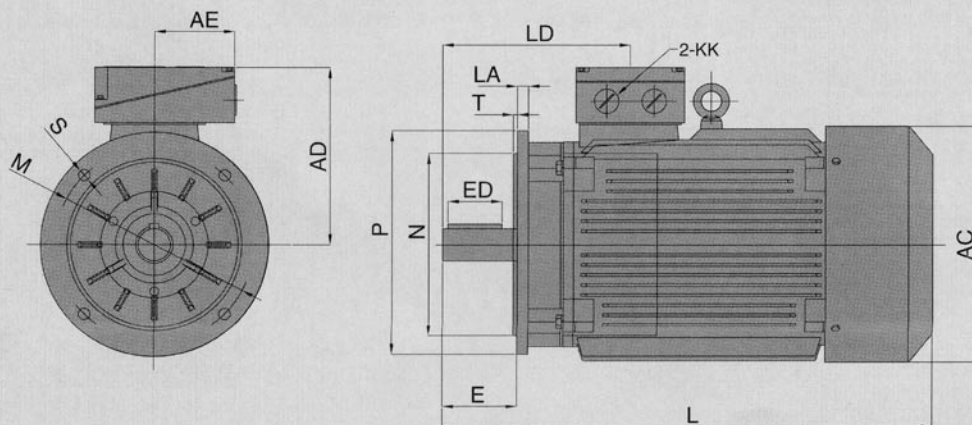
B3, 80-132 FRAME



B3, 160-355 FRAME



B5



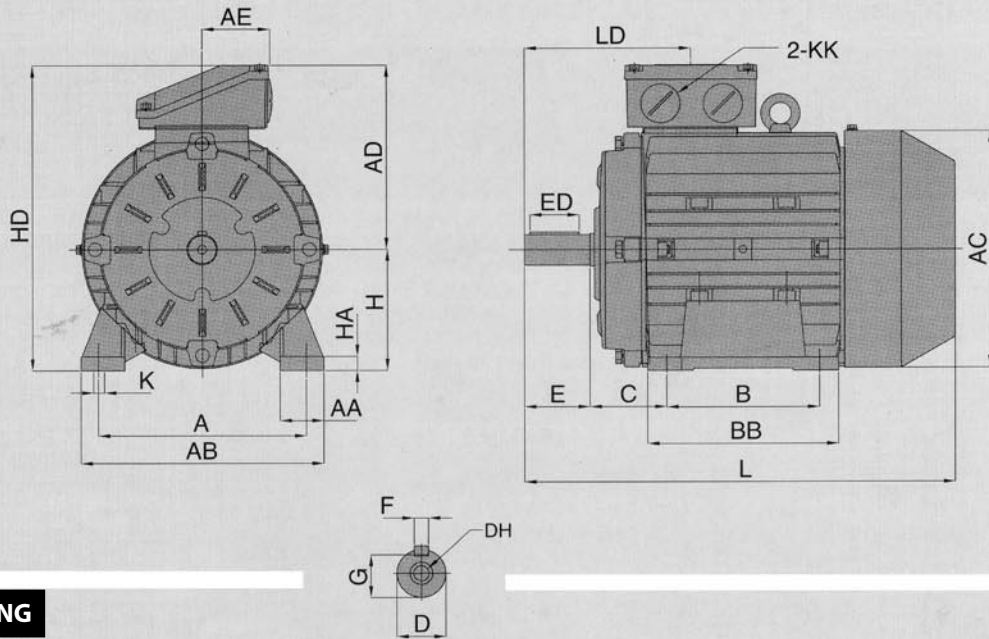
DIMENSIONS CAST IRON MOTORS

FRAME	A	AA	AB	AC	AD	AE	B	BB	C	* D	DH	E	ED	F	G	H	HA	HD	K	KK	L	TPULA	LD	M	N	P	S	T
80	125	35	165	175	140	65	100	130	50	19	M6X16	40	25	6	15.5	80	10	215	10	M25	295	10	115	165	130	200	12	3.5
90S	140	37	180	195	150	65	100	140	56	24	M8X19	50	40	8	20	90	13	235	10	M25	320	12	130	165	130	200	12	3.5
90L	140	37	180	195	150	65	125	165	56	24	M8X19	50	40	8	20	90	13	235	10	M25	345	12	130	165	130	200	12	3.5
100	160	45	200	215	165	65	140	180	63	28	M10X22	60	45	8	24	100	14	265	12	M32	375	12	145	215	180	250	15	4
112	190	45	200	240	180	65	140	185	70	28	M10X22	60	45	8	24	112	14	290	12	M32	405	12	150	215	180	250	15	4
132S	216	50	230	275	190	65	140	205	89	38	M12X28	80	60	10	33	132	16	325	12	M32	470	13	180	265	230	300	15	4
132M	216	50	275	275	190	65	178	243	89	38	M12X28	80	60	10	33	132	16	325	12	M32	505	13	180	265	230	300	15	4
160M	254	65	275	325	270	110	210	260	108	42	M16X36	110	90	12	37	160	20	425	15	M40	610	15	256	300	250	350	19	5
160L	254	65	314	325	270	110	254	305	108	42	M16X36	110	90	12	37	160	20	425	15	M40	655	15	256	300	250	350	19	5
180M	279	70	314	380	288	110	241	311	121	48	M16X36	110	90	14	42.5	180	22	455	15	M40	665	18	272	300	250	350	19	5
180L	279	70	349	380	288	110	279	348	121	48	M16X36	110	90	14	42.5	180	22	455	15	M40	705	18	272	300	250	350	19	5
200	318	70	349	410	310	160	305	370	133	55	M20X42	110	90	16	49	200	25	510	19	M50	790	20	306	350	300	400	19	5
225S(2P)	356	77	388	470	335	160	286	370	149	55	M20X42	110	90	16	49	225	28	560	19	M50	805	20	330	400	350	450	19	5
225S(4-8P)	356	77	431	470	335	160	286	370	149	60	M20X42	140	110	18	53	225	28	560	19	M50	835	20	330	400	350	450	19	5
225M(2P)	356	77	431	470	335	160	311	393	149	55	M20X42	110	90	16	49	225	28	560	19	M50	830	20	330	400	350	450	19	5
225M(4-8P)	356	77	431	470	335	160	311	393	149	60	M20X42	140	110	18	53	225	28	560	19	M50	860	20	330	400	350	450	19	5
250M(2P)	406	80	431	495	360	170	349	445	168	60	M20X42	140	110	18	53	250	30	615	24	M50	950	22	345	500	450	550	19	5
280S(2P)	406	80	480	495	360	170	349	445	168	65	M20X42	140	110	18	58	250	30	615	24	M63	950	22	345	500	450	550	19	5
280S(4-8P)	406	80	480	495	360	170	349	445	168	70	M20X42	140	110	20	62.5	250	30	615	24	M63	950	22	345	500	450	550	19	5
280M(2P)	457	85	480	580	410	170	368	485	190	65	M20X42	140	110	18	58	280	35	690	24	M63	1015	23	380	500	450	550	19	5
280M(4-8P)	457	85	542	580	410	170	368	485	190	75	M20X42	140	110	20	67.5	280	35	690	24	M63	1015	23	380	500	450	550	19	5
280M(2P)	457	85	542	580	410	170	419	538	190	65	M20X42	140	110	18	58	280	35	690	24	M63	1100	23	380	500	450	550	19	5
280M(4-8P)	457	85	542	580	410	170	419	538	190	75	M20X42	140	110	20	67.5	280	35	690	24	M63	1100	23	380	500	450	550	19	5
280M2(4-8P)	457	85	542	580	410	170	419	538	190	80	M20X42	170	140	22	71	280	35	690	24	M63	1100	23	380	500	450	550	19	5
315S(2P)	508	120	542	645	530	315	406	570	216	65	M20X42	140	110	18	58	315	45	845	28	-	1160	24	420	600	550	660	24	6
315S(4-8P)	508	120	628	645	530	315	406	570	216	80	M20X42	170	140	22	71	315	45	845	28	-	1190	24	420	600	550	660	24	6
315M(2P)	508	120	628	645	530	315	457	680	216	65	M20X42	140	110	18	58	315	45	845	28	-	1270	24	420	600	550	660	24	6
315M(4-8P)	508	120	628	645	530	315	457	680	216	80	M20X42	170	140	22	71	315	45	845	28	-	1240	24	420	600	550	660	24	6
315L(2P)	508	120	628	645	530	315	508	740	216	65	M20X42	140	110	18	58	315	45	845	28	-	1310	24	420	600	550	660	24	6
315L(4P)	508	120	628	645	530	315	508	740	216	80	M20X42	170	140	22	71	315	45	845	28	-	1340	24	420	600	550	660	24	6
315L(6-8P)	508	120	628	645	530	315	508	740	216	80	M20X42	170	140	22	71	315	45	845	28	-	1340	24	420	600	550	660	24	6
315L1(4P)	508	120	628	645	530	315	508	740	216	90	M24X50	170	140	25	81	315	45	845	28	-	1340	24	420	600	550	660	24	6

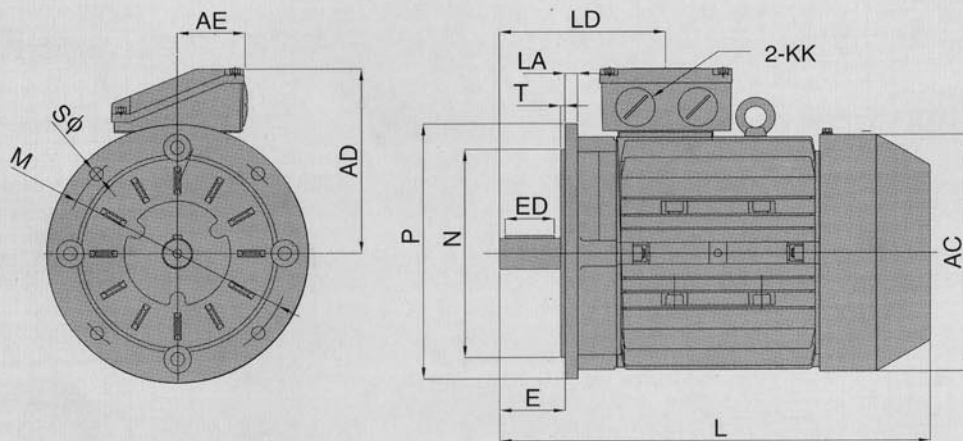
*D = SHAFT DIAMETER

DIMENSIONS ALUMINIUM MOTORS

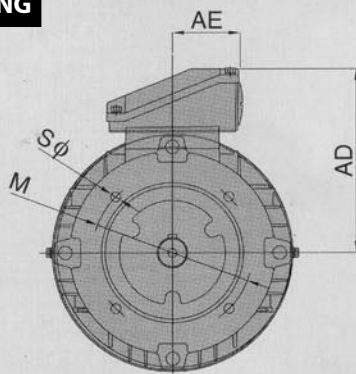
B3 MOUNTING



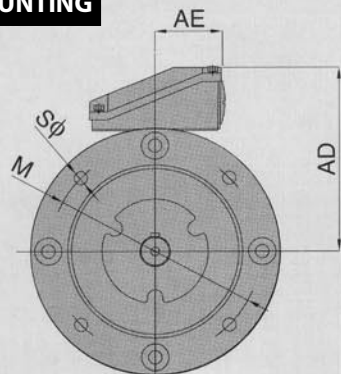
B5 MOUNTING



B14A MOUNTING



B14B MOUNTING



B3 FOOTMOUNT DIMENSIONS

FRAME	A	AA	AB	AC	AD	AE	B	BB	C	*D	DH	E	ED	F	G	H	HA	HD	K	KK	L	LD
63	100	30	135	140	112	37	80	125	40	11	M3X9	23	13	4	8.5	63	6	175	7	M20	225	80
71	112	30	140	145	109	37	90	140	45	14	M4X10	30	20	5	11	71	6	180	7	M20	250	98
80	125	35	165	175	150	57	100	130	50	19	M6X16	40	25	6	16	80	10	230	10	M25	290	115
90S	140	37	180	195	150	57	100	140	56	24	M8X19	50	40	8	20	90	13	240	10	M25	320	130
90L	140	37	180	195	150	57	125	165	56	24	M8X19	50	40	8	20	90	13	240	10	M25	335	130
100	160	45	200	215	165	57	140	180	63	28	M10X22	60	45	8	24	100	14	260	12	M32	385	145
112	190	45	230	240	183	57	140	185	70	28	M10X22	60	45	8	24	112	14	295	12	M32	405	150
132S	216	50	275	275	193	57	140	205	89	38	M12X28	80	60	10	33	132	16	325	12	M32	470	180
132M	216	50	275	275	193	57	178	243	89	38	M12X28	80	60	10	33	132	16	325	12	M32	505	180
160M	254	80	320	325	240	90	210	270	108	42	M16X36	110	90	12	37	160	22	400	15	M40	610	256
160L	254	80	320	325	240	90	254	310	108	42	M16X36	110	90	12	37	160	22	400	15	M40	655	256
180M	279	75	345	355	265	90	241	295	121	48	M16X36	110	90	14	43	180	25	445	15	M40	700	272
180L	279	75	345	355	265	90	279	320	121	48	M16X36	110	90	14	43	180	25	445	15	M40	740	272
200	318	100	400	355	265	90	305	355	133	55	M20X42	110	90	16	49	200	28	465	19	M50	805	272

*D = SHAFT DIAMETER

ALTERNATIVE MOUNTING DIMENSIONS

B5 REDUCED FLANGEMOUNT

FRAME	M	N	P	S	T	LA
71	115	95	140	10	3.5	8
80	130	110	160	10	3.5	8
90S	130	110	160	10	3.5	8
90L	130	110	160	10	3.5	8
100	165	130	200	12	3.5	12
112	165	130	200	12	3.5	12
132S	215	180	250	12	4	12
132M	215	180	250	12	4	12

B14A MOUNTING

FRAME	M	N	P	S	T
63	75	60	90	M5	2.5
71	85	70	105	M6	2.5
80	100	80	120	M6	3
90	115	95	140	M8	3
100	130	110	160	M8	3.5
112	130	110	160	M8	3.5
132	165	130	200	M10	3.5
160M	215	180	250	M12	4
160L	215	180	250	M12	4

B14B MOUNTING

FRAME	M	N	P	S	T
63	100	80	120	M6	3
71	115	95	140	M8	3
80	130	110	160	M8	3.5
90	130	110	160	M8	3.5
100	165	130	200	M10	3.5
112	165	130	200	M10	3.5

B5 FLANGEMOUNT DIMENSIONS

FRAME	M	N	P	S	T	LA
63	115	95	140	10	3.5	8
71	130	110	160	10	3.5	8
80	165	130	200	12	3.5	10
90S	165	130	200	12	3.5	12
90L	165	130	200	12	3.5	12
100	215	180	250	15	4	12
112	215	180	250	15	4	12
132S	265	230	300	15	4	13
132M	265	230	300	15	4	13
160M	300	250	350	19	5	15
160L	300	250	350	19	5	15
180M	300	250	350	19	5	17
180L	300	250	350	19	5	17
200	350	300	400	19	5	20



LOCATIONS

176 Settlement Road
Thomastown 3074

91 Breen Street
Bendigo 3550

35 Hoskin Street
Shepparton 3630

EMAIL: trojan@trojan-power.com
WEB: www.trojan-power.com