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# POWERTEK EQUIPMENT C

AN ISO 9001:2008 CERTIFIED COMPANY

MFG & Exporter of Geared Motor Gear Boxes & Electric Winches

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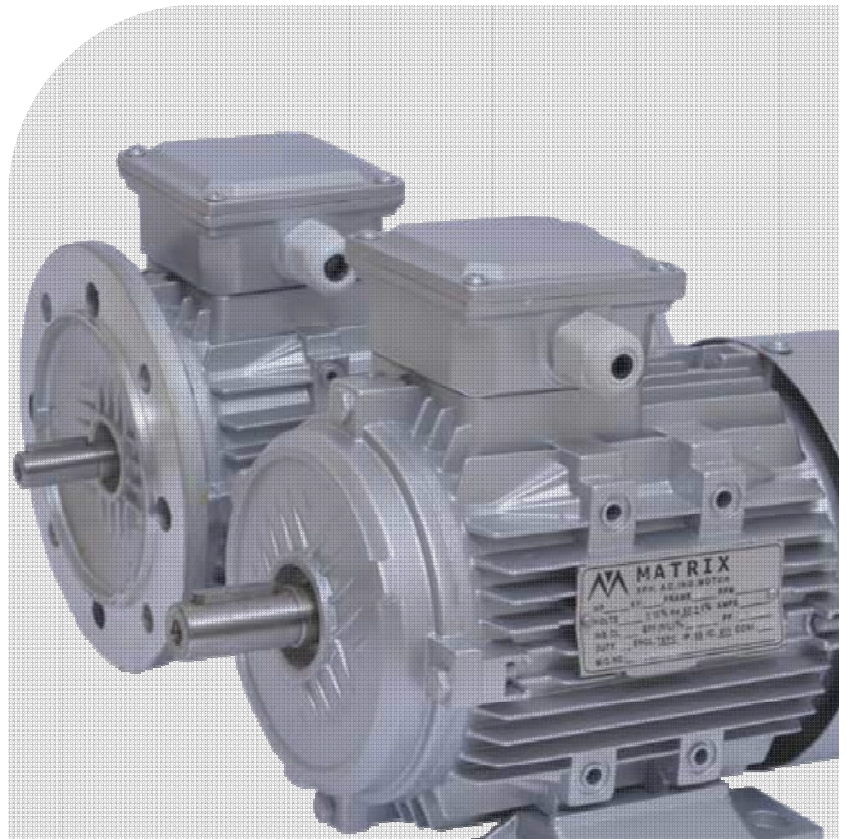
CO.

S.  
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A BRAND OF INDIA  
FOR INDIA  
BY INDIA

## WE MAJORLY MFG IN

- INDUCTION MOTORS
- BRAKE MOTORS
- WORM REDUCTION GEARBOXES AC DRIVES
- CYCLOIDAL GEARBOXES
- HELICAL GEARBOXES
- PLANETARY DRIVES





**IE2 HIGH  
EFFICIENCY**



## **MX SERIES CAST IRON MOTORS**

<b>RANGE</b>	<b>0.5HP TO 20HP</b>
<b>FRAMES</b>	<b>MX71 TO MX 160M</b>
<b>POLES</b>	<b>2,4,6,8</b>
<b>MOUNTINGS</b>	<b>B3/B5/B35/B14/B34</b>



## **MEX SERIES ALUMINIUM BODY MOTORS**

<b>RANGE</b>	<b>0.25HP TO 3HP</b>
<b>FRAMES</b>	<b>MX63 TO MX 100L</b>
<b>POLES</b>	<b>2,4,6,8</b>
<b>MOUNTINGS</b>	<b>B3/B5/B35/B14/B34</b>

## INTRODUCTION

**Marix Brand Motors Are Specially Designed For Industries Serving Pan India. we Are Manufacturing Ie2/ie3 Motors With All In-house Facility To Ensure Quality Standards That Match Industry Demand. matrix Offers Is/iec Metric Frame Mx Series Motors In Cast Iron Body Construction. mx Series Covers Output From As 0.18kw To 15kw In Frame Size 63 To 160m In 2, 4 & 6 Pole Speeds. Available With Ie2, Ie3 Efficiency. Many Applications Often Have Adverse Operating Conditions Including Repeated Starting And Occasional Overloading The Mx Cast Iron Range Is Well Suited To These Situations.**

## STANDARD SPECIFICATION

<b>Type</b>	<b>: Ac Squirrel Cage Induction Motor</b>
<b>Frame</b>	<b>: 63 To 160m</b>
<b>Rated Power</b>	<b>: 0.18kw To 15kw (0.25hp To 20hp)</b>
<b>Rated Speed</b>	<b>: 3000, 1500, 1000, 750</b>
<b>Frequency Variation</b>	<b>: 50hz (±5%)</b>
<b>Voltage Variation</b>	<b>: 415v Or 230v (±10%)</b>
<b>Mounting</b>	<b>: Foot Type Or Flange Type B3/b5</b>
<b>Enclosure</b>	<b>: Tefc (Total Enclose Fan Cooled)</b>
<b>Cooling Method</b>	<b>: Ic 411 (Shaft Mounted Fan)</b>
<b>Degree Of Protection</b>	<b>: Ip44/ip55</b>
<b>Duty</b>	<b>: S1/ Continues.</b>
<b>Ambient Temperature</b>	<b>: 50° C</b>
<b>Insulation Class</b>	<b>: Class “F”</b>
<b>Direction Of Rotation</b>	<b>: Clockwise &amp; Anticlockwise As Seen From Drive End Side.</b>
<b>Altitude</b>	<b>: Should Be Lower Than 1000 Meters Above Sea Level.</b>

## FEATURES

High Efficiency And Long Life Product.

Motors Are Fitted With Dynamically Balanced Aluminium Die Cast

Squirrel Cage Rotors

High Torque Level.

Motors Are Fitted With Pre-lubricated Antifriction Ball Bearings Up To I32 Frame.

Minimum Rotor Losses Due To Use Of Electrolytic Grade Of Aluminium. High Power Factor.

Low Temperature Rise.

Minimum Copper Losses Due To Use Of Electrolytic Grade Of Copper

Minimum Friction Losses With Skf – E2 Series

Easy Maintenance

Minimum Pay Back Period

## APPLICATION

Light Duty Machines As Lathe, Pillar Type Drilling Machine

Pumps

Domestic Floor Mills, Rolling Mills.

Cooling Towers.

Compressors, Wood Working Machinery & Varied Machine Tools.

Plastic Machinery

Textile Machinery.

Food Processing Machinery.

Materials Handling Equipment

Printing Machinery

Nobake Casting  
Of Motor Body



Silicon Steel  
Graded Stamping



Apple/RR copper wire

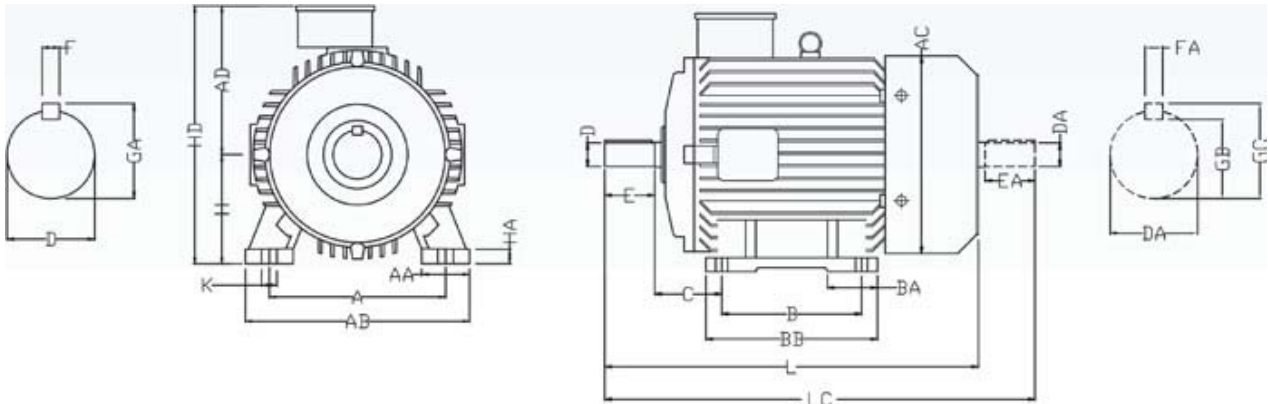
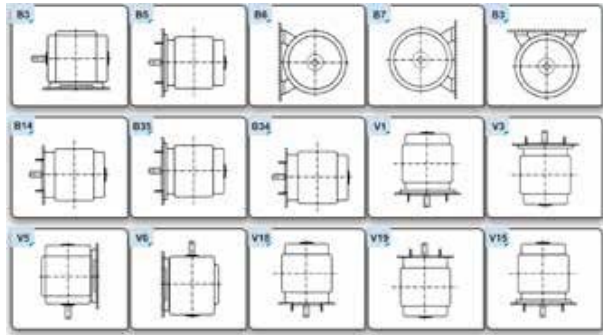
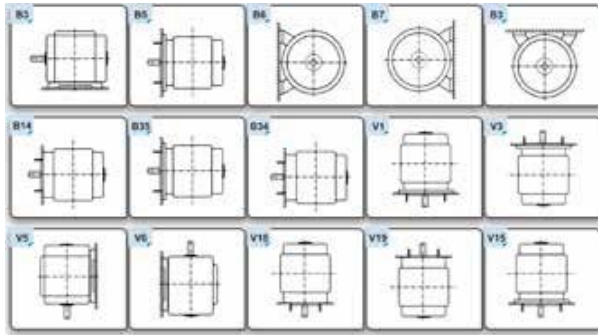
Aluminium Die  
Cast Rotor



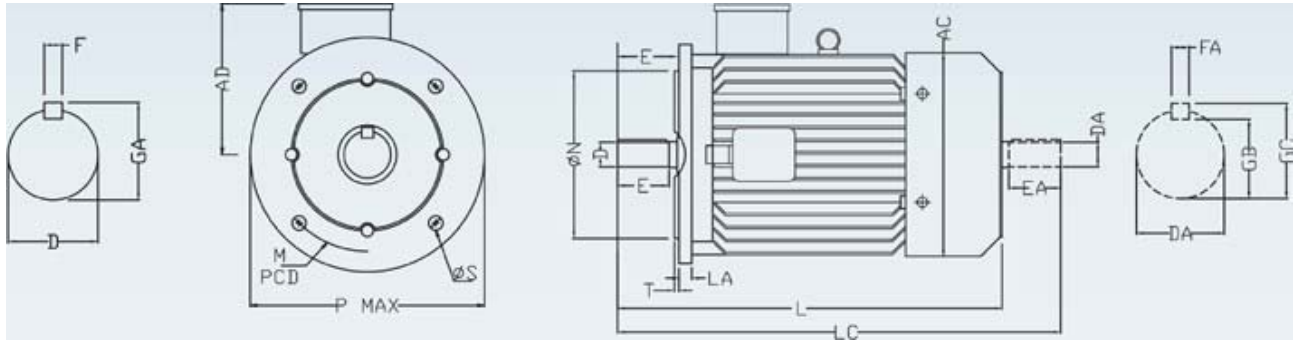
SKF bearing



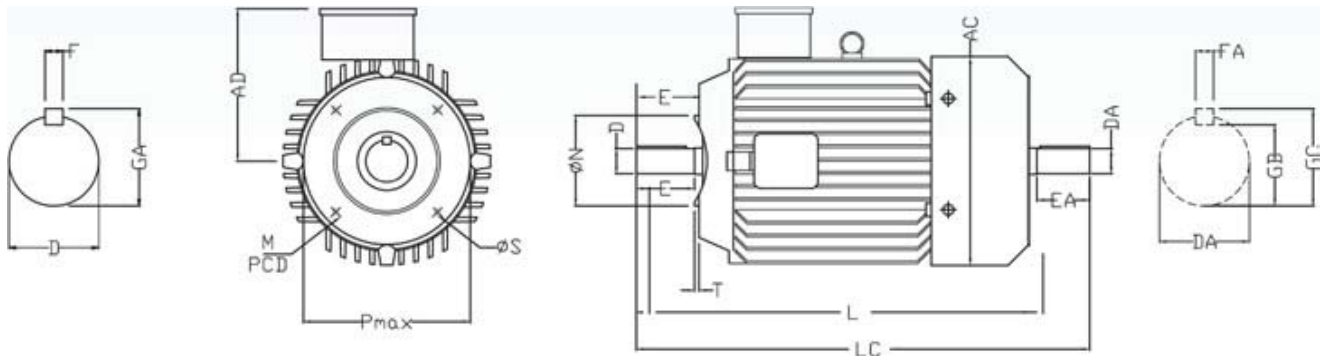
IP 55 Protection



FRAM SIZE	71	80	90S	90L	112L	112M	132S	132M	160M	160L
L	245	282	310	331	385	395	465	503	576	620
LC	281	382	366	387	452	462	552	590	693	737
AD	96	108	139	139	144	161	182	182	211	211
D	14	19	24	24	28	28	38	38	42	42
E	30	40	50	50	60	60	80	80	110	110
F	5	6	8	8	8	8	10	10	12	12
GA	16	21.5	27	27	31	31	41	41	45	45
A	112	125	140	140	160	190	216	216	254	254
B	90	100	100	125	140	140	140	178	210	254
C	45	50	56	56	63	70	89	89	108	108
H	71	80	90	90	100	112	132	132	160	160
K	7	10	10	10	12	12	12	12	15	15
AA	30	40	40	40	42	50	57	57	64	64
AB	134	159	176	176	200	230	262	262	304	304
BB	110	130	134	156	173	180	183	215	260	304
BA	30	32	42	50	50	51	54	60	60	60
HA	11	10	12	13	15	15	19	19	20	20
HD	170	188	228	228	248	272	314	314	371	371



FRAME SIZE	71	80	90S	90L	100L	112M	132S	132M	160M	160L
L	245	282	310	331	385	395	465	503	576	620
LC	281	328	366	387	452	462	552	590	693	737
AD	96	108	139	139	149	161	182	182	211	211
D	14	19	24	24	28	28	38	38	42	42
E	30	40	50	50	60	60	80	80	110	110
F	5	6	8	8	8	8	10	10	12	12
GA	16	21.5	27	27	31	31	41	41	50	50
P MAX	160	200	200	200	250	250	300	300	350	350
M PCD	130	165	165	165	215	215	265	265	300	300
ØN	110	130	130	130	180	180	265	230	250	250
ØS	10	12	12	12	15	15	15	15	19	19
T	3.5	3.5	3.5	3.5	4	4	4	4	5	5
LA	9	10	10	10	11	11	12	12	13	13



FRAME SIZE	71	80	90S	90L	100L	112M	132S	132M
L	245	282	310	331	385	395	465	503
LC	281	328	366	387	452	462	552	590
AD	96	103	139	139	149	161	182	182
D	14	19	24	24	28	28	38	38
E	30	40	50	50	60	60	80	80
F	5	6	8	8	8	8	10	10
GA	16	21.5	27	27	31	31	41	41
P MAX	105	120	140	140	160	160	200	200
M PCD	85	100	115	115	130	130	165	165
ØN	70	80	95	95	110	110	130	130
ØS	M6	M6	M8	M8	M8	M8	M12	M12
T	2.5	3.0	3.0	3.0	3.5	3.5	3.5	3.5

## 3 PHASE TEFC SQUIRREL AC INDUCTION MOTORS FRAME - 71 TO 160L 2POLE:3000RPM

Voltage : 415±10%		Insu. Class: "F"		Ambient :50°C								
Protection: IP44/IP55		Frequency : 50Hz±5%		Temp Rise Class: "B"		Duty :S1/Continuous						
Rating Output		Frame Size	OPERATING CHARACTERISTICS AT RATED OUTPUT						With DOL Starting			Net Weight
			Rated Speed	FL EFFICIENCY]%		Power Factor	FLCurrent	Rated Torque	STG. Current % FLC	STG Torque %FLT	POT Torque %FLT	
kW	HP	ISI	RPM	IE2	IE3	Cos Ø	TA 415V	Kgm				Kgs
0.37	0.5	71	2850	72.2	75.5	0.73	1.1	0.13	450	233	245	9
0.75	1.0	80	2870	77.4	80.7	0.74	1.8	0.25	550	250	260	17
1.1	1.5	80	2875	79.6	82.7	0.7	2.3	0.37	560	240	258	19
1.5	2.0	90S	2880	81.3	84.2	0.79	3.4	0.50	580	230	240	22
2.2	3.0	90L	2890	83.0	85.9	0.75	4.6	0.75	600	260	280	25
3.7	5.0	100L	2900	85.5	87.8	0.72	7.6	1.24	610	250	275	32
5.5	7.5	132S	2910	87.0	89.2	0.85	10.1	1.84	600	250	286	60
7.5	10.0	132S	2915	88.1	90.1	0.82	13.8	2.50	620	256	270	65
9.3	12.5	132S	2918	88.6	90.6	0.86	16.5	3.11	610	240	259	110
11.0	15.0	160M	2920	89.4	91.2	0.87	20.0	3.62	630	260	275	120
15.0	20.0	160M	2925	90.3	91.9	0.83	27.0	4.90	610	220	240	130

## 3 PHASE TEFC SQUIRRELCAGE AC INDUCTION MOTORS FRAME - 71 TO 160L 4POLE:1500RPM

Voltage : 415±10%		Insu. Class: "F"		Ambient :50 C								
Protection : IP44/IP55		Frequency : 50Hz±5%		Temp Rise Class: "B"		Duty :S1/Continuous						
Rating Output		Frame Size	OPERATING CHARACTERISTICS AT RATED OUTPUT						With DOL Starting			Net Weight
			Rated Speed	FL EFFICIENCY]%		Power Factor	FLCurrent	Rated Torque	STG. Current % FLC	STG Torque %FLT	POT Torque %FLT	
kW	HP	ISI	RPM	IE 2	IE 3	Cos Ø	At 415V	Kgm				Kgs
0.37	0.5	71	1425	70.1	73.0	0.66	1.2	0.26	410	186	210	10
0.75	1.0	80	1440	79.6	82.5	0.77	1.6	0.51	509	230	248	18
1.1	1.5	90S	1442	81.4	84.1	0.78	2.6	0.74	550	230	243	22
1.5	2.0	90L	1448	82.8	85.3	0.81	3.5	1.01	568	250	269	24
2.2	3.0	100L	1455	84.3	86.7	0.82	4.7	1.48	572	260	302	32
3.7	5.0	112M	1445	86.3	88.4	0.85	7.8	2.48	610	245	289	40
5.5	7.5	132S	1455	87.7	89.6	0.82	10.7	3.68	615	250	301	65
7.5	10.0	132M	1458	88.7	90.4	0.85	14.2	5.02	624	250	305	76
9.3	12.5	160M	1460	89.2	91.0	0.81	17.3	6.20	630	230	289	110
11.0	15.0	160M	1462	89.8	91.4	0.80	19.7	7.20	621	248	292	120
15.0	20.0	160L	1465	90.6	92.1	0.79	27.2	9.91	600	238	242	145

## 3 PHASE TEFC SQUIRRELCAGE AC INDUCTION MOTORS FRAME - 71 TO 160L 6POLE:1000RPM

Voltage : 415±10%		Insu. Class: "F"		Ambient :50 C								
Protection : IP44/IP55		Frequency : 50Hz±5%		Temp Rise Class: "B"		Duty :S1/Continuous						
Rating Output		Frame Size	OPERATING CHARACTERISTICS AT RATED OUTPUT						WITH DOL STARTING			Net Weight
			Rated Speed	FL EFFICIENCY]%		Power Factor	FLCurrent	Rated Torque	STG. Current % FLC	STG Torque %FLT	POT Torque %FLT	
kW	HP	ISI	RPM	IE 2	IE 3	Cos Ø	At 415V	Kgm				Kgs
0.37	0.5	80	918	69	71.9	0.66	1.3	0.39	550	220	231	18
0.75	1.0	90S	924	75.9	78.9	0.77	1.9	0.78	520	215	226	23
1.1	1.5	90L	925	78.1	81	0.78	2.9	1.14	540	235	247	25
1.5	2.0	100L	935	79.8	82.5	0.81	3.8	1.53	535	210	221	33
2.2	3.0	112M	950	81.8	84.3	0.82	5.1	2.21	542	202	212	40
3.7	5.0	132S	960	84.3	86.5	0.85	8.2	3.68	610	241	253	65
5.5	7.5	132M	965	86	88	0.82	11.5	5.45	625	260	273	80
7.5	10.0	160M	965	87.2	89.1	0.85	15.2	7.43	623	250	263	105
9.3	12.5	160L	967	88.1	89.8	0.81	17.9	9.19	685	205	215	145
11.0	15.0	160L	970	88.7	90.3	0.80	22.0	10.83	646	215	226	155
15.0	20.0	180L	970	89.7	91.2	0.79	28.0	14.77	678	234	246	185