

AC MOTORS

Standard Specification :

Standards – Designed as per IEC 34-7

Testing – Meets requirements of IS 325, IS 12615, IS 1231 & IS 2223.

Cooling & Ventilation – Cooling as per IS 6362. High air flow external Bidirectional polypropylene fans assure low temperature rise to give an extended life to motor. Fan cowls are suitable gauge pressed steel construction, securely bolted to endshield of motor-body.

Rotor – Core of Insulated Lamination with a high Pressure die-cast Aluminum cage. The whole rotor assembly is dynamically balance to ensure quiet & vibration free operation. Surface to rotor is protected by an anti corrosion coating.

Voltage – 415 Volts +/- 10%

Frequency – 50 Hz +/- 5%

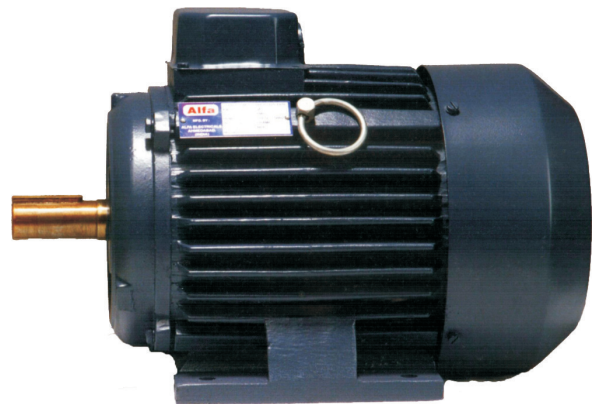
Insulation Class – ‘F’ (Temperature Rise limited to class ‘B’)

Ambient Temp. – 45 Degree C.

Altitude – 1000 Mtrs

Protection – IP 44, IP 55 or as requested.

Mountings – B3-Foot, B5-Flange, B14-Face



Construction Features

- Motor body and End-covers from frame sizes 71 to 180 L made from CI FG : 200 as standard.
- Motor body and End-covers from frame sizes 71 to 90 L made from aluminum pressure die-cast.
- This motors give high starting torque, cool and robust with high overload, suits to applications such as air-compressures, pumps, fans, medical apparatus and instruments, and many other machines.
- The wound stators are dully vacuum impregnated.
- Standard synthetic enamel paint is provided. Special paint can be provided on request.



HP	KW	FRAME SIZE			
		2 POLE 3000 RPM	4 POLE 1500 RPM	6 POLE 960 RPM	8 POLE 750 RPM
0.16	0.12	63	63	71	71
0.25	0.18	63	63	71	80
0.33	0.25	63	71	71	80
0.5	0.37	71	71	80	90S
0.75	0.55	71	80	80	90L
1	0.725	80	80	80	100L
1.5	1.1	80	90S	90L	100L
2	1.5	90S	90L	100L	112M
3	2.2	90L	100L	112M	132S
4	3	100L	100L	132S	132M
5	3.7	100L	100L	132S	132M
5	3.7	100L	112M	132S	160M
7.5	5.5	132S	132S	132M	160M
10	7.5	132S	132M	160M	160L
15	11	160M	160M	160M	180L
20	15	160M	160M	180L	
25	18.5	160L	180L		
30	22	180M	180L		

All Dimension are in mm

2 POLE = 3000 RPM

FRAME	KW	HP	Effi %	Current (A)	Cos Ø	RPM	Torque Rated kg. m	Weight kg.
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63	0.18	0.25	60.0	0.60	0.76	2800	0.07	6.0
71	0.37	0.50	68.0	1.0	0.76	2800	0.13	8.5
71	0.55	0.75	70.0	1.35	0.76	2810	0.19	9.5
80	0.75	1.00	75.0	1.70	0.78	2820	0.26	14.0
80	1.10	1.50	78.0	2.40	0.80	2820	0.37	15.5
90S	1.50	2.00	80.0	3.20	0.80	2850	0.51	20.0
90L	2.20	3.00	81.0	4.40	0.80	2855	0.75	25.0
100L	2.20	3.00	82.0	4.40	0.81	2855	0.75	34.0
100L	3.70	5.00	83.0	7.30	0.82	2900	1.24	36.0
112M	3.70	5.00	84.0	7.30	0.83	2900	1.24	42.0
132S	5.50	7.50	86.0	10.6	0.84	2900	1.85	64.0
132M	7.50	10.0	86.0	14.2	0.84	2910	2.50	70.0
160M	9.30	12.5	88.0	16.5	0.86	2930	3.10	120
160M	11.0	15.5	88.0	19.5	0.87	2930	3.60	130
160L	15.0	20.0	89.0	25.5	0.88	2930	5.00	145
160L	18.5	25.0	90.0	31.0	0.91	2930	6.10	145

4 POLE = 1500 RPM

FRAME	KW	HP	Effi %	Current (A)	Cos Ø	RPM	Torque Rated kg. m	Weight kg.
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63	0.12	0.16	55.0	0.46	0.66	1376	0.09	6.0
63	0.18	0.25	57.0	0.66	0.68	1363	0.13	7.0
71	0.25	0.33	60.0	0.80	0.70	1374	0.18	8.0
71	0.37	0.50	64.0	1.10	0.69	1370	0.26	10.0
80	0.55	0.75	72.0	1.40	0.74	1395	0.38	15.5
80	0.75	1.00	73.0	1.90	0.75	1390	0.52	16.0
90S	1.10	1.50	75.0	2.80	0.75	1410	0.76	20.0
90L	1.50	2.00	78.0	3.40	0.77	1415	1.03	24.0
100L	2.20	3.00	81.0	4.80	0.80	1435	1.49	33.0
112M	3.70	5.00	84.0	7.60	0.82	1445	2.49	45.0
132S	5.50	7.50	86.0	11.0	0.82	1450	3.69	63.0
132M	7.50	10.0	87.0	15.0	0.83	1450	5.04	75.0
160M	9.30	12.5	88.0	18.0	0.84	1460	6.20	110
160M	11.0	15.5	89.0	21.5	0.84	1465	7.30	125
160L	15.0	20.0	90.0	31.0	0.84	1465	9.97	145

6 POLE = 960 RPM

FRAME	KW	HP	Effi %	Current (A)	Cos Ø	RPM	Torque Rated kg. m	Weight kg.
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71	0.18	0.25	55.0	0.90	0.63	890	0.02	10.0
80	0.37	0.50	65.0	1.20	0.67	930	0.40	16.0
80	0.55	0.75	68.0	1.60	0.68	930	0.59	17.0
90S	0.75	1.00	74.0	2.00	0.72	935	0.78	20.0
90L	1.10	1.50	74.0	2.90	0.70	940	1.15	23.0
100L	1.50	2.00	75.0	3.90	0.72	938	1.56	30.0
112M	2.20	3.00	82.0	5.00	0.77	950	2.25	45.0
132S	3.70	5.00	84.0	8.00	0.78	960	3.75	65.0
132M	5.50	7.50	84.0	11.8	0.80	955	5.61	75
160M	7.50	10.0	86.0	15.8	0.80	970	7.53	110
160L	15.0	15.0	87.0	22.3	0.81	970	11.0	150

8 POLE = 750 RPM

FRAME	KW	HP	Effi %	Current (A)	Cos Ø	RPM	Torque Rated kg. m	Weight kg.
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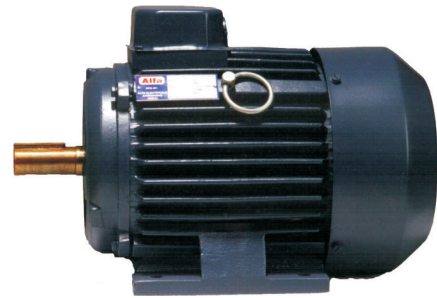
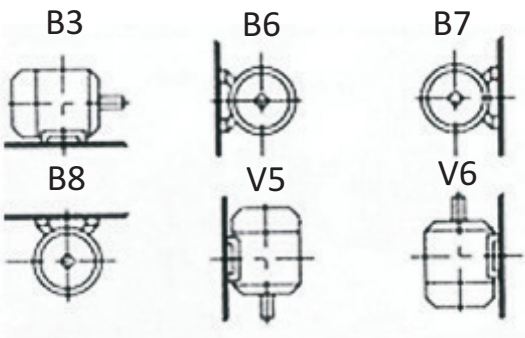
80	0.18	0.25	56.0	1.00	0.62	700	0.06	10.0
90S	0.37	0.50	65.0	1.30	0.61	700	0.51	17.0
90L	0.55	0.75	69.0	1.80	0.62	700	0.77	20.0
100L	0.75	1.00	71.0	2.30	0.62	700	1.04	30.0
100L	1.10	1.50	72.0	3.20	0.64	700	1.53	33.0
112M	1.50	2.00	76.0	4.10	0.66	710	2.06	48.0
132S	2.20	3.00	78.0	5.40	0.69	710	3.02	60
132M	3.70	5.00	80.0	8.50	0.72	710	5.00	80
160M	3.70	5.00	83.0	8.50	0.74	720	5.00	105
160M	5.50	7.50	84.0	12.5	0.74	720	7.44	122
160L	7.50	10.0	85.0	16.7	0.75	720	10.1	150



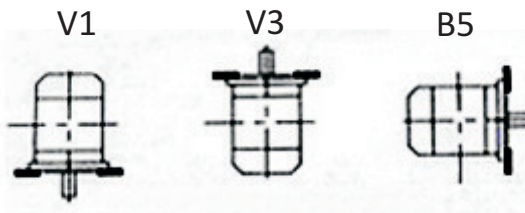
Mountings :

Motors can be used in any of the standard mountings as shown in figure attached as per IS 1231 and IS 2253. Foot cum Flange mounted or Foot cum Face mounted motors can also be supplied.

FOOT MOUNTING



FLANGE MOUNTING



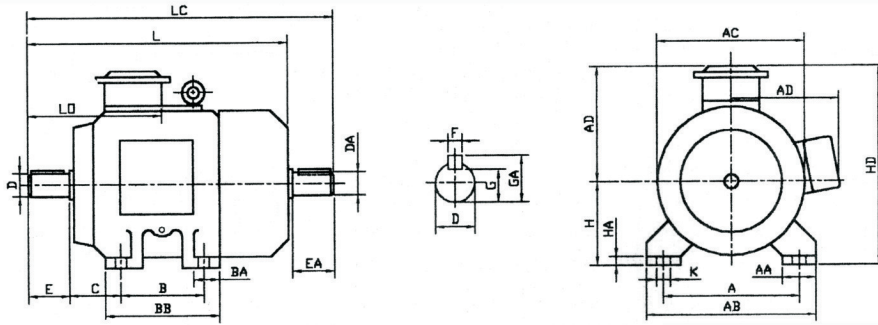
FACE MOUNTING



Mounting Dimensions

Motors are in IEC frame sizes and the fixing dimensions conform to IS 1231 for foot mounted motors and IS 2223 for flange mounted motors. The overall dimensions of motors are given in Tables attached.

FOOT MOUNTING

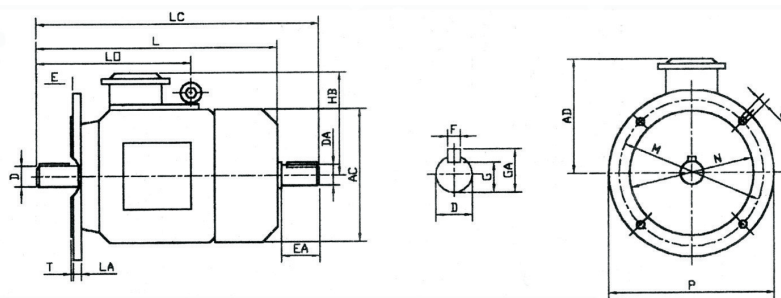


FRAME	A	B	C	H	K	L	LO	AA	AB	AC	AD	BA	BB	HA	HD	D/DA	E/EA	F	G	GA	LC
63	100	80	40	63	M6	210	105	25	123	127	110	30	100	8	175	11	23	4	8.5	12.5	236
71	112	90	45	71	M6	238	123	30	142	142	120	35	110	10	190	14	30	5	11.0	16.0	271
80	125	100	50	80	M8	270	140	35	155	161	130	40	124	12	160	19	40	6	15.5	21.5	315
90S	140	100	56	90	M8	303	157.5	40	175	180	140	45	130	13	230	24	50	8	20.0	27.0	357
90L	140	125	56	90	M8	328	170	40	175	180	140	50	155	13	230	24	50	8	20.0	27.0	382
100L	160	140	63	100	M10	370	185	40	195	201	165	55	170	14	260	28	60	8	24.0	31.0	435
112M	190	140	70	112	M10	385	200	45	225	225	175	60	180	15	290	28	60	8	24.0	31.0	448
132S	216	140	89	132	M12	470	239	60	265	264	200	80	175	22	335	38	80	10	33	41	560
132M	216	178	89	132	M12	508	258	60	265	264	200	80	215	22	335	38	80	10	33	41	598
160M	254	210	108	160	M12	581	323	70	315	330	230	90	265	25	390	42	110	12	37	45	695
160L	254	254	108	160	M12	625	345	70	315	330	230	90	310	25	390	42	110	12	37	45	739
180M	280	242	121	180														14			
180L	280	242	121	180														14			

NOTE : 63,71,80,90 are without eye bolts.

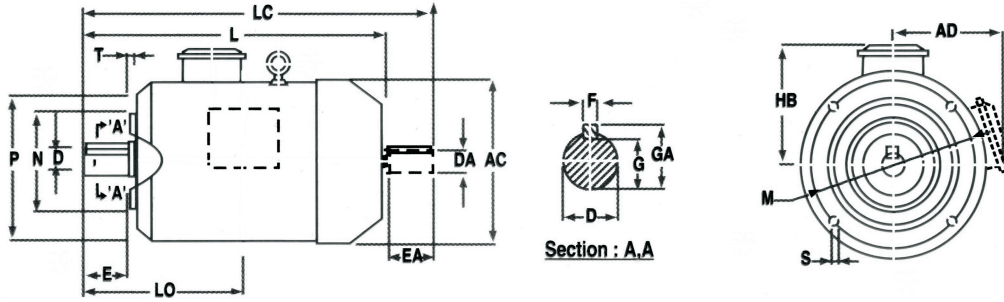
Tolerance on H + 0.0
- 0.5

FLANGE MOUNTING



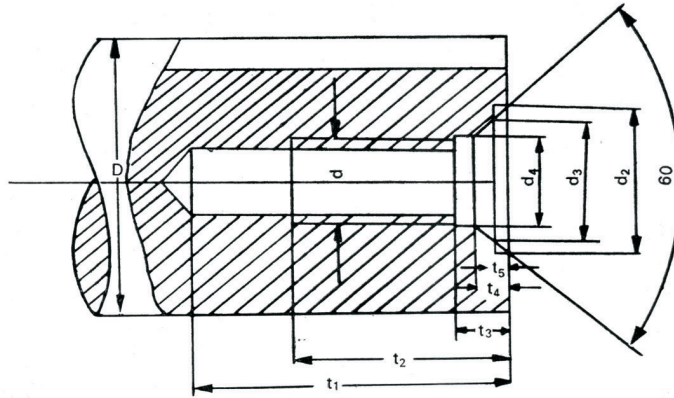
FRAME	M	N	P	S	T	L	LO	LA	AD	AC	HB	D	E	F	G	GA	LC
63	115	95	140	10	3	210	105	9	110	127	110	11	23	4	8.5	12.5	236
71	130	110	160	10	3.5	238	123	9	120	142	120	14	30	5	11.0	16	271
80	165	130	200	12	3.5	270	140	10	130	161	130	19	40	6	15.5	21.5	315
90S	165	130	200	12	3.5	303	157.5	10	140	180	140	24	50	8	20	27	357
90L	165	130	200	12	3.5	328	170	10	140	180	140	24	50	8	20	27	382
100L	215	180	250	15	4	370	185	11	165	201	165	28	60	8	24	31	435
112M	215	180	250	15	4	385	200	11	175	225	175	28	60	8	24	31	448
132S	265	230	300	15	4	470	239	12	200	264	200	38	80	10	33	41	560
132M	265	230	300	15	4	508	258	12	200	264	200	38	80	10	33	41	598
160M	300	250	350	19	5	581	323	13	230	330	230	42	110	12	37	45	695
160L	300	250	350	19	5	625	345	13	230	330	230	48	110	14	37	45	739

FACE MOUNTING



FRAME	M	N	P	S	T	L	LO	LA	AD	AC	AB	D/DA	E/EA	F	G	GA	LC
63	75	60	90	M5	2.5	210	105	9	110	127	110	11	23	4	8.5	12.5	236
71	85	70	105	M6	2.5	238	123	9	120	142	120	14	30	5	11.0	16.0	271
80	100	80	120	M6	3.0	270	140	10	130	161	130	19	40	6	15.5	21.5	315
90S	115	95	140	M8	3.0	303	157.5	10	140	180	140	24	50	8	20.0	27.0	357
90L	115	95	140	M8	3.0	328	170	10	140	180	140	24	50	8	20.0	27.0	382
100L	130	110	160	M8	3.5	370	185	11	165	201	165	28	60	8	24.0	31.0	435
112M	130	110	160	M8	3.5	385	200	11	175	225	175	28	60	8	24.0	31.0	448
132S	165	130	200	M12	3.5	470	239	12	200	264	200	38	80	10	33.0	41.0	560
132M	165	130	200	M12	3.5	508	258	12	200	264	200	38	80	10	33.0	41.0	598

DETAILS OF THREADED CENTER HOLES AT SHAFT END



Shaft Dia. range	d4	d	d2	d3	t1	t2	t3	t4	t5
14-22	5.5	M5	9	8	16	11	5.5	2.5	0.5
22-26	5.5	M5	9.5	8.5	25	16.5	6.5	3.2	0.5
26-30	6.5	M6	11	10	25	16.5	6.5	3.2	0.5
30-38	13	M12	19	17	38	26	9	4.5	1.0
38-50	17	M16	25.5	21.5	45	32	12	6	2.0
50-85	21	M20	30.0	26.0	53	39	14	7	2.0
85-130	25.0	M24	40.0	32.0	63	48	16.5	9	2.5

All Dimension are in mm