



SINGLE PHASE

Induction Motor



- ✓ GOOD PERFORMANCE
- ✓ IP55 PROTECTION
- ✓ IEC DIMENSION
- ✓ LOW NOISE



GENERAL INTRODUCTION

ML, MC, MY Single Phase Series Aluminum Motors are acknowledged as having a name for Quality and Reliability. They are suitable for driving small type machine tools, water pumps, etc, especially for family workshops where only single-phase current supply is available.

Single Phase Motors incorporate:-

- ♣ Superior finish
- ♣ Motors size acc. to IEC
- ♣ Totally Enclosed Fan Cooled
- ♣ Light Construction
- ♣ Top mounted terminal box
- ♣ IP55 Protection, IC411 Cooling
- ♣ Choice of Foot or Flange Mounting
- ♣ Motor Frame Size from 56-112

MC : CAPACITOR START SERIES

MY : CAPACITOR RUN SERIES

ML : DUAL CAPACITOR SERIES

PERFORMANCE DATA

Motor types MC Capacitor Start Series (2Pole/3000rpm, 4Pole/1500rpm)

Rated Power		Frame Size	Rated Speed (RPM)	Full-load current 220V (A)	Power Factor COS ϕ	Efficiency η %	Locked Rotor Current Is/In	Locked Rotor Torque Ms/Mn	Break Down Torque Mk/Mn	Starting capacitor (250V) μ F	Weight Kg
KW	HP										
0.12	0.16	71-1	1350	1.90	0.58	50	4.80	3.00	1.8	75.0	6.1
0.18	0.24	71-1	2750	1.90	0.72	60	6.30	3.00	1.8	75.0	6.2
		71-2	1370	2.50	0.62	53	4.80	2.80	1.8	75.0	6.7
0.25	0.33	71-2	2770	2.40	0.74	64	6.25	3.00	1.8	75.0	6.3
		80-1	1400	3.10	0.63	58	4.80	2.80	1.8	100.0	8.9
0.37	0.5	80-1	2800	3.36	0.77	65	6.25	2.80	1.8	100.0	8.3
		80-2	1410	4.20	0.64	62	5.00	2.50	1.8	100.0	9.6
0.55	0.75	80-2	2810	4.65	0.79	68	6.24	2.80	1.8	150.0	9.0
		90S	1420	5.55	0.69	66	5.20	2.50	1.8	150.0	12.5
0.75	1	90S	2820	6.10	0.82	70	6.10	2.50	1.8	200.0	12.5
		90L	1420	6.77	0.73	68	5.50	2.50	1.8	200.0	15.0
1.1	1.5	90L	2820	8.40	0.83	72	7.20	2.50	1.8	300.0	14.0
		100LA	1430	9.50	0.74	71	6.40	2.50	1.8	400.0	23.0
1.5	2	100LA	2830	11.20	0.84	73	7.20	2.50	1.8	300.0	22.5
		100LB	1430	12.50	0.75	73	6.40	2.50	1.8	400.0	27.0
2.2	3	100LB	2830	15.70	0.85	75	7.65	2.20	1.8	2X300	25.5
		112M	1440	17.80	0.76	74	6.80	2.20	1.8	2X300	35.0
3	4	112M	2840	21.20	0.85	76	7.10	2.20	1.8	2X300	26.0

Data subjected to revision without prior notice.

PERFORMANCE DATA

Motor types MY Capacitor Run Series (2Pole/3000rpm, 4Pole/1500rpm)

Rated Power		Frame Size	Rated Speed (RPM)	Full-load current 220V (A)	Power Factor COS ϕ	Efficiency η %	Locked Rotor Current Is/In	Locked Rotor Torque Ms/Mn	Break Down Torque Mk/Mn	Starting capacitor (450V) μ F	Weight Kg
KW	HP										
0.06	0.08	56-1	1330	0.61	0.90	50	3.30	0.45	1.7	6.0	3.2
0.09	0.12	56-1	2730	0.80	0.92	56	3.20	0.50	1.7	6.0	3.2
		56-2	1340	0.87	0.90	52	2.90	0.45	1.7	6.0	3.4
0.12	0.16	56-2	2730	1.00	0.92	60	3.50	0.50	1.7	6.0	3.4
		63-1	1350	1.10	0.90	57	3.20	0.40	1.7	6.0	4.0
0.18	0.24	63-1	2740	1.37	0.92	65	3.70	0.40	1.7	6.0	3.9
		63-2	1360	1.54	0.90	59	3.30	0.40	1.7	8.0	4.5
0.25	0.33	63-2	2740	1.90	0.92	66	3.70	0.40	1.7	8.0	4.4
		71-1	1370	2.10	0.92	61	3.40	0.35	1.7	12.0	6.1
0.37	0.5	71-1	2750	2.73	0.92	67	3.70	0.35	1.7	12.0	6.2
		71-2	1370	3.00	0.92	62	3.40	0.35	1.7	16.0	7.0
0.55	0.75	71-2	2760	3.90	0.92	70	3.90	0.35	1.7	16.0	6.3
		80-1	1380	4.30	0.92	64	3.50	0.35	1.7	25.0	9.5
0.75	1	80-1	2780	5.20	0.92	72	3.90	0.33	1.7	30.0	8.3
		80-2	1380	5.50	0.92	68	3.70	0.32	1.7	30.0	10.0
1.1	1.5	80-2	2790	7.10	0.95	75	4.30	0.33	1.7	35.0	9.0
		90S	1390	7.50	0.95	71	4.00	0.32	1.7	40.0	13.0
1.5	2	90S	2800	9.50	0.95	76	4.80	0.30	1.7	40.0	13.0
		90L	1400	9.90	0.95	73	4.60	0.30	1.7	40.0	16.0
2.2	3	90L	2800	13.70	0.95	77	4.80	0.30	1.7	40.0	15.0

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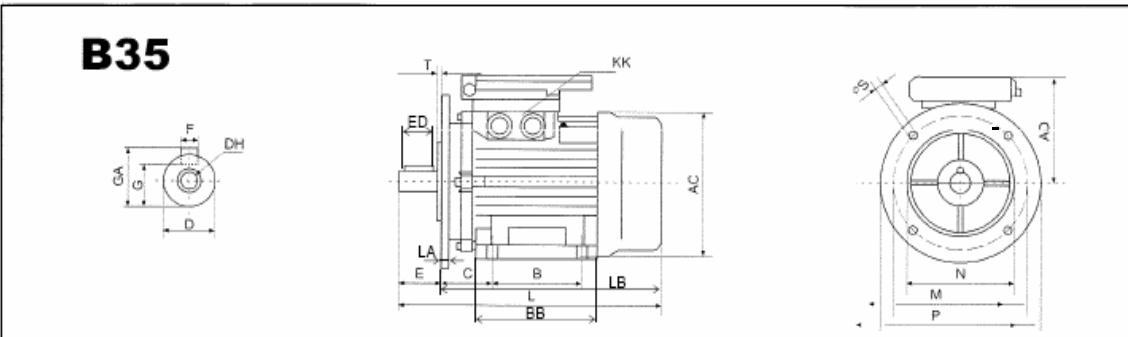
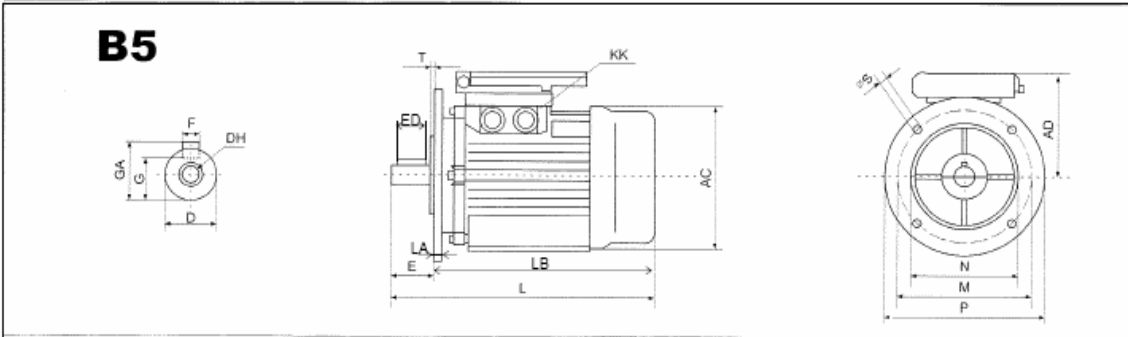
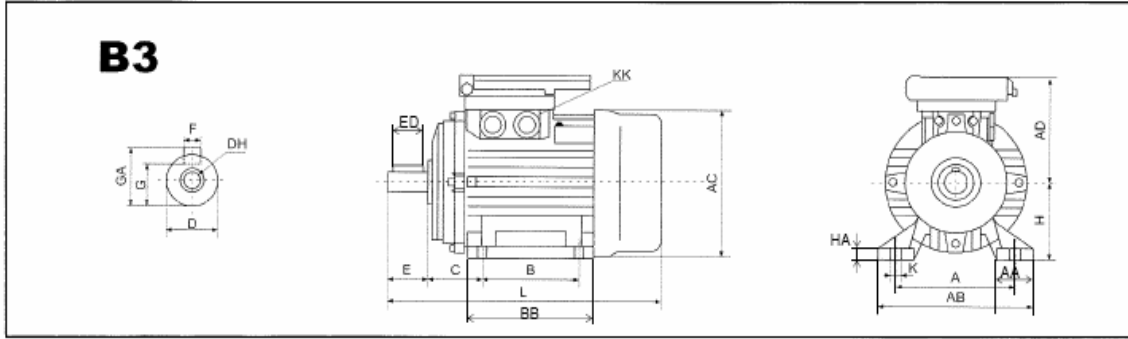
Motor types ML Dual Capacitor Series (2Pole/3000rpm, 4Pole/1500rpm)

Rated Power		Frame Size	Rated Speed (RPM)	Full-load current 220V (A)	Power Factor COS ϕ	Efficiency η %	Locked Rotor Current Is/In	Locked Rotor Torque Ms/Mn	Break Down Torque Mk/Mn	Capacitor		Weight Kg
KW	HP									Starting (250V) μ F	Running (450V) μ F	
0.55	0.75	80-1	1400	3.90	0.92	70	5.40	1.80	1.7	100	25	8.9
0.75	1	80-1	2800	5.15	0.92	75	5.70	1.80	1.7	100	25	8.3
		80-2	1400	5.30	0.92	71	5.50	1.80	1.7	150	30	9.6
1.1	1.5	80-2	2800	7.20	0.95	78	5.60	1.80	1.7	150	25	9.0
		90S	1400	7.00	0.95	76	5.70	1.70	1.7	200	35	13.0
1.5	2	90S	2800	9.20	0.95	78	6.00	1.70	1.7	300	40	12.5
		90L	1400	9.20	0.95	78	6.00	1.70	1.7	200	40	16.0
2.2	3	90L	2800	12.90	0.95	82	6.20	1.70	1.7	300	40	14.0
		100LA	1410	13.20	0.95	80	6.10	1.70	1.7	400	50	23.0
3	4	100L1	2820	17.30	0.95	83	6.40	1.70	1.7	400	55	20.5
		100LB	1420	17.30	0.95	83	6.40	1.70	1.7	400	50	27.0
3.7	5	112M	2820	21.20	0.96	83	6.50	1.70	1.7	400	50	26.0
		112M	1430	21.10	0.96	83	6.50	1.70	1.7	400	50	35.0

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Mounting and Overall Dimensions

F#56~90 without lifting bolt



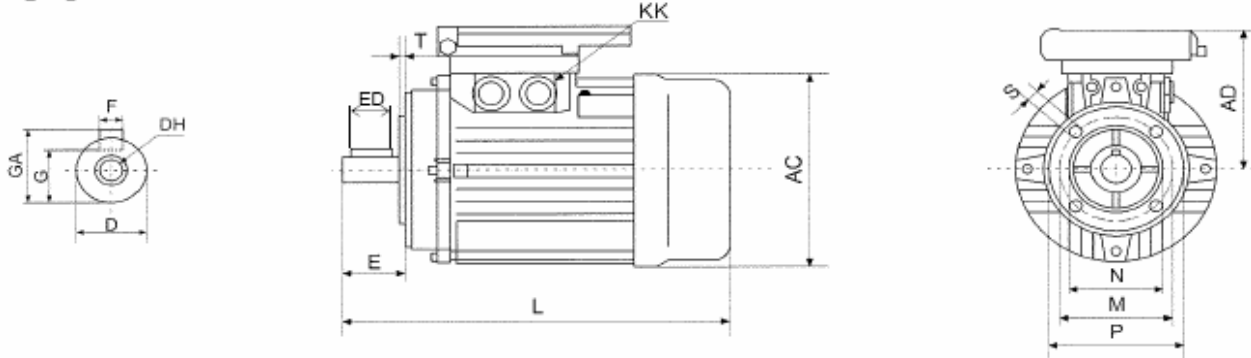
Frame Size	Overall Dimensions														
	A	AB	AC	AD	B	C	D	DH	E	F	G	H	K	KK	L
56	90	110	110	86	71	36	9	M4X12	20	3	7.2	56	7	2-M18X1.5	189
63	100	122	122	96	80	40	11	M4X12	23	4	8.5	63	7	2-M18X1.5	218
71	112	136	138	110	90	45	14	M5X12	30	5	11	71	7	2-M18X1.5	250
80	125	154	157	152	100	50	19	M6X16	40	6	15.5	80	10	2-M20X1.5	278
90S	140	174	175	158	100	56	24	M8X19	50	8	20	90	10	2-M20X1.5	335
90L	140	174	175	158	125	56	24	M8X19	50	8	20	90	10	2-M20X1.5	335
100L	160	194	196	177	140	63	28	M10X22	60	8	24	100	12	2-M20X1.5	377
112M	190	224	220	184	140	70	28	M10X22	60	8	24	112	12	2-M25X1.5	395

Frame Size	Overall Dimensions												Bearing	
	M	N	P	S	T	AA	BB	ED	HA	LA	LB	GA	DE	NDE
56	100	80	120	7	3	22	91	14	10	9	173	10.2	6201ZZ-C3	6201ZZ-C3
63	115	95	140	9	3	25	100	15	10	10	192	12.5	6201ZZ-C3	6201ZZ-C3
71	130	110	160	9	3.5	27	108	20	11	10	221	16	6202ZZ-C3	6202ZZ-C3
80	165	130	200	12	3.5	30	126	30	11	10	246	21.5	6204ZZ-C3	6204ZZ-C3
90S	165	130	200	12	3.5	34	128	40	14	10	285	27	6205ZZ-C3	6205ZZ-C3
90L	165	130	200	12	3.5	34	155	40	14	10	285	27	6205ZZ-C3	6205ZZ-C3
100L	215	180	250	15	4	40	175	45	15	15	317	31	6206ZZ-C3	6206ZZ-C3
112M	215	180	250	15	4	40	175	45	15	15	332	31	6206ZZ-C3	6206ZZ-C3

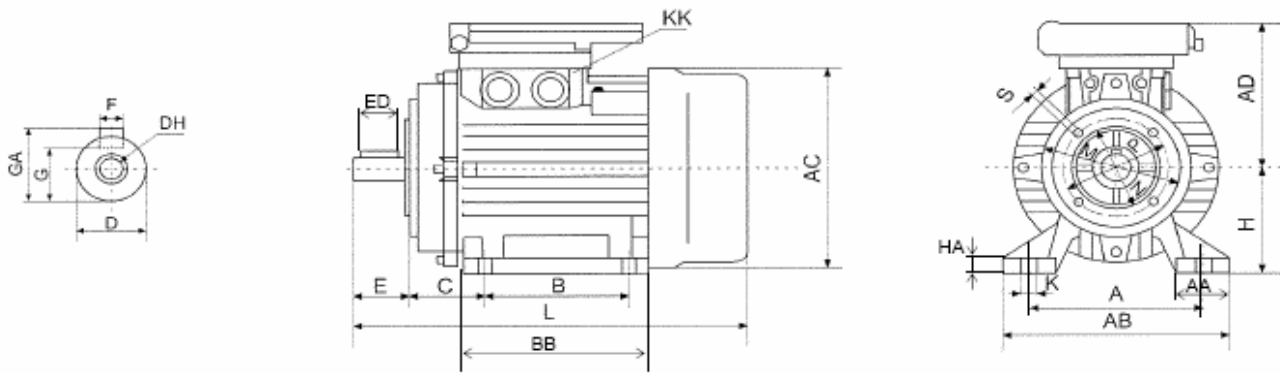
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Mounting and Overall Dimensions

B14



B34



Frame Size	Overall Dimensions													
	A	AB	AC	AD	B	C	D	DH	E	F	G	H	K	KK
56	90	110	110	96	71	36	9	M4X12	20	3	7.2	56	7	2-M18X1.5
63	100	122	122	96	80	40	11	M4X12	23	4	8.5	63	7	2-M18X1.5
71	112	136	138	110	90	45	14	M5X12	30	5	11	71	7	2-M18X1.5
80	125	154	157	152	100	50	19	M6X16	40	6	15.5	80	10	2-M20X1.5
90S	140	174	175	158	100	56	24	M8X19	50	8	20	90	10	2-M20X1.5
90L	140	174	175	158	125	56	24	M8X19	50	8	20	90	10	2-M20X1.5
100L	160	194	196	177	140	63	28	M10X22	60	8	24	100	12	2-M20X1.5
112M	190	224	220	184	140	70	28	M10X22	60	8	24	112	12	2-M25X1.5

Frame Size	Overall Dimensions											Bearing	
	L	M	N	P	S	T	AA	BB	ED	HA	GA	DE	NDE
56	189	65	50	80	M5	3	22	91	14	10	10.2	6201ZZ-C3	6201ZZ-C3
63	218	75	60	90	M5	3	25	100	15	10	12.5	6201ZZ-C3	6201ZZ-C3
71	250	85	70	105	M6	3.5	27	108	20	11	16	6202ZZ-C3	6202ZZ-C3
80	278	100	80	120	M6	3.5	30	126	30	11	21.5	6204ZZ-C3	6204ZZ-C3
90S	335	115	95	140	M8	3.5	34	128	40	14	27	6205ZZ-C3	6205ZZ-C3
90L	335	115	95	140	M8	3.5	34	128	40	14	27	6205ZZ-C3	6205ZZ-C3
100L	377	130	110	160	M8	4	40	175	45	15	31	6206ZZ-C3	6206ZZ-C3
112M	395	130	110	160	M8	4	40	175	45	15	31	6206ZZ-C3	6206ZZ-C3

Data are subject to revisions without notice.

Range of Products

⊖ Three phase asynchronous squirrel-cage & slip ring induction motors

⊖ Three phase asynchronous self-braking motors

⊖ External rotor motors

⊖ Cooling tower motors

⊖ High efficiency motors

⊖ Explosion-proof & increased safety motors

⊖ Anchor winch motors

⊖ High temperature resistant motors

⊖ Geared motors

Motors can be customized in accordance to customers' mechanical & electrical requirements:

- | | |
|-------------------------------------------------|-------------------------------------------|
| 1. IP56 | 10. Anti-condensation heater |
| 2. IP66 | 11. Special shaft extension |
| 3. Class H Insulation | 12. Inverter duty application |
| 4. Multi-speed | 13. Double-ended shaft |
| 5. Special paint finish | 14. Grease relief for frames down to 100L |
| 6. Corrosion-proof | 15. Sun canopy |
| 7. Special voltage/frequency (Hz) | 16. Brake motor |
| 8. Corrosion-proof | 17. TENV motors |
| 9. PTC thermistor for heater thermal protection | 18. High temperature resistance |



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