

# MS series 3 Phase Induction Motor Aluminium Housing



- Frequency :** 50Hz, 60Hz
- Voltage :** 220/380V,380/660V
- Connection :** Y-Connection for up to 3 kw  
delta-connection for 4 kw and above.
- Duty :** Continuous (S1)
- Insulation class :** F
- Protection :** IP55
- cooling :** IC411

MS motors (center height 56-132mm, 0.06-7.5kw) are aluminium housing, totally enclosed, fan cooled, three-phase, squirrel cage induction motors. MS motors is high starting torque, low noise (test at load), light weight and modern design. Rated output and mounting dimensions are fully conformed to the standard IEC 34-1 and DIN 42673, They are general purpose motors suitable for driving various kinds of machines or equipments without special requirements, ambient temperature is not exceeding 40°C. Altitude is not over 1000 meters above sea level.

Note: bearing of (C 3: increased clearance), type zz to both driving and non-driving side with temperature range from -10 c to +110 c

## Mounting Arrangements

*Types of mounting	IEC 34-7 Code	1992 Code II
	IM B <sub>3</sub>	IM 1001
	IM B <sub>5</sub>	IM 3001
	IM B <sub>6</sub>	IM 1051
	IM B <sub>7</sub>	IM 1061
	IM B <sub>8</sub>	IM 1071
	IM B <sub>14</sub>	IM 3601
	IM B <sub>34</sub>	IM 2101
	IM B <sub>15</sub>	IM 2001
	IM V <sub>1</sub>	IM 3001

*Types of mounting	IEC 34-7 Code I	1992 Code II
	IM V <sub>1</sub>	IM 3021
	IM V <sub>3</sub>	IM 1011
	IM V <sub>5</sub>	IM 1031
	IM V <sub>6</sub>	IM 2011
	IM V <sub>15</sub>	IM 12111
	IM V <sub>15</sub>	IM 3611
	IM V <sub>18</sub>	IM 3631
	IM V <sub>36</sub>	IM 2031
	IM V <sub>36</sub>	IM 2131

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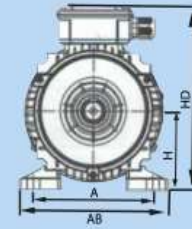
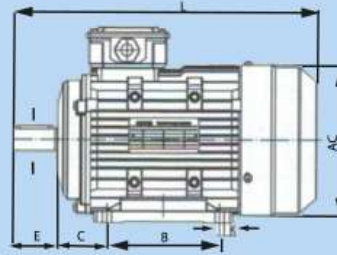
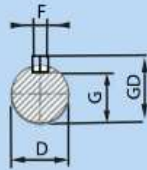


Model	Output		full load				75% load		50% load		Tstart/Tn	Ist/In	Tmax/Tn
	kW	HP	Current(A)	speed(r/min)	Eff(%)	Power factor	Eff(%)	Power factor	Eff(%)	Power factor			
<b>380V 50Hz Synchronous Speed 3000r/min(2 poles)</b>													
MS-561-2	0.09	0.12	0.30	2700	58.0	0.78	56.2	0.77	54.0	0.74	2.2	5.5	2.2
MS-562-2	0.12	0.18	0.38	2700	60.0	0.79	58.5	0.78	56.0	0.75	2.2	5.5	2.2
MS-631-2	0.18	0.25	0.53	2720	63.0	0.80	62.0	0.80	60.5	0.76	2.2	5.5	2.2
MS-632-2	0.25	0.33	0.69	2720	65.0	0.81	64.0	0.80	62.5	0.77	2.2	5.5	2.2
MS-711-2	0.37	0.50	0.99	2740	66.0	0.81	55.0	0.80	63.5	0.78	2.2	6.1	2.2
MS-712-2	0.55	0.75	1.40	2740	71.0	0.82	70.0	0.82	68.5	0.79	2.2	6.1	2.3
MS-801-2	0.75	1	1.83	2830	73.0	0.83	72.0	0.83	70.2	0.80	2.2	6.1	2.3
MS-802-2	1.1	1.5	2.58	2830	76.2	0.84	75.1	0.83	73.0	0.80	2.2	7.0	2.3
MS-905-2	1.5	2	3.43	2840	78.5	0.84	77.0	0.85	70.0	0.81	2.2	7.0	2.3
MS-90L-2	2.2	3	4.85	2840	81.0	0.85	80.0	0.85	78.0	0.84	2.2	7.0	2.3
MS-100L-2	3	4	6.31	2870	82.6	0.87	81.0	0.86	79.3	0.86	2.2	7.0	2.3
MS-112M-2	4.0	5.5	8.10	2890	84.2	0.88	83.5	0.87	81.0	0.84	2.2	7.5	2.3
MS-132S1-2	5.5	7.5	11.0	2900	85.7	0.88	84.3	0.89	83.0	0.84	2.2	7.5	2.3
MS-132S2-2	7.5	10	14.9	2900	87.0	0.88	85.9	0.87	83.7	0.84	2.2	7.5	2.3
<b>380V 50Hz Synchronous Speed 1500r/min(4 poles)</b>													
MS-561-4	0.06	0.08	0.26	1300	53.0	0.70	51.8	0.65	50.0	0.53	2.1	5.2	2.2
MS-562-4	0.09	0.12	0.35	1300	55.0	0.71	53.8	0.67	52.0	0.55	2.1	5.2	2.2
MS-631-4	0.12	0.18	0.42	1310	57.0	0.72	58.1	0.69	53.9	0.57	2.1	5.2	2.2
MS-632-4	0.18	0.25	0.62	1310	60.0	0.73	58.5	0.70	56.7	0.59	2.1	5.2	2.2
MS-711-4	0.25	0.33	0.79	1330	65.0	0.74	62.4	0.73	59.3	0.59	2.1	5.2	2.2
MS-712-4	0.37	0.50	1.12	1330	67.0	0.75	65.3	0.74	60.8	0.63	2.1	5.2	2.2
MS-801-4	0.55	0.75	1.57	1390	71.0	0.75	69.2	0.74	67.2	0.64	2.4	5.2	2.3
MS-802-4	0.75	1.0	2.03	1390	73.0	0.76	71.7	0.75	69.8	0.67	2.3	6.0	2.3
MS-905-4	1.1	1.5	2.89	1400	76.2	0.77	73.1	0.75	70.8	0.67	2.3	6.0	2.3
MS-90L-4	1.5	2	3.70	1400	78.5	0.79	76.1	0.76	73.7	0.69	2.3	6.0	2.3
MS-100L1-4	2.2	3	5.16	1430	81.0	0.81	78.0	0.79	75.5	0.69	2.3	7.0	2.3
MS-100L2-4	3.0	4	6.78	1430	82.6	0.82	79.9	0.78	77.5	0.70	2.3	7.0	2.3
MS-112M-4	4.0	5.5	8.80	1440	84.2	0.82	81.9	0.79	79.6	0.70	2.3	7.0	2.3
MS-132S-4	5.5	7.5	11.7	1440	85.7	0.83	82.8	0.81	80.4	0.73	2.3	7.0	2.3
MS-132M-4	7.5	10	15.6	1440	87.0	0.84	84.8	0.82	82.6	0.74	2.3	7.0	2.3
<b>380V 50Hz Synchronous Speed 1000r/min(6 poles)</b>													
MS-711-6	0.18	0.25	0.74	850	56.0	0.66	54.6	0.66	53.0	0.65	1.9	4.0	2.0
MS-712-6	0.25	0.33	0.95	850	59.0	0.68	57.5	0.68	56.1	0.62	1.9	4.0	2.0
MS-801-6	0.37	0.50	1.30	890	62.0	0.70	60.5	0.69	59.1	0.64	1.9	4.7	2.0
MS-802-6	0.55	0.75	1.79	890	65.0	0.72	63.3	0.71	60.1	0.64	1.9	4.7	2.1
MS-905-6	0.75	1	2.29	910	69.0	0.72	67.3	0.72	66.3	0.65	2.0	5.5	2.1
MS-90L-6	1.1	1.5	3.18	910	72.0	0.73	70.2	0.72	68.0	0.66	2.0	5.5	2.2
MS-100L-6	1.5	2	3.94	940	76.0	0.75	74.0	0.75	71.0	0.68	2.0	5.5	2.1
MS-112M-6	2.2	3	5.60	940	79.0	0.73	77.1	0.77	75.1	0.69	2.0	6.5	2.1
MS-132S-6	3.0	4	7.40	960	81.0	0.76	78.9	0.77	76.1	0.69	2.1	6.5	2.1
MS-132M1-6	4.0	5.5	9.80	960	82.0	0.76	80.0	0.76	77.5	0.70	2.1	6.5	2.1
MS-132M2-6	5.5	7.5	12.9	960	84.0	0.77	82.1	0.77	79.4	0.70	2.1	6.5	2.1

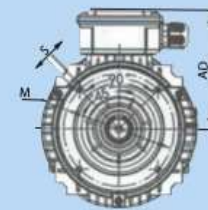
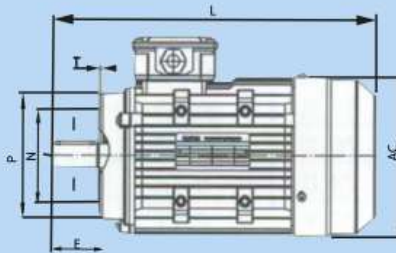
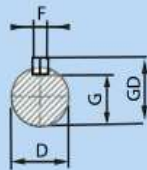
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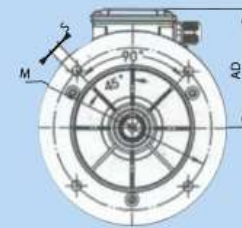
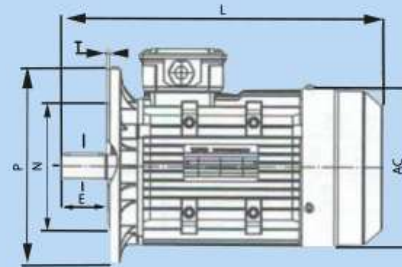
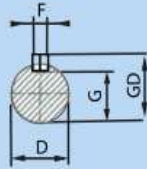
## B3



## B14



## B5



Frame No.	Installation Size										Installation Size B14					Installation Size B5					Over all dimensions					
	A	B	C	D	E	F	G	GD	H	K	M	N	P	S	T	M	N	P	S	T	AB	AC	AD	HD	L	L*
56	90	71	36	9	20	3	7.2	10.2	56	6	65	50	80	M5	2	100	80	120	8.5	3	110	120	91	147	195	-
63	100	80	40	11	23	4	8.5	12.5	63	7	75	60	90	M5	2.5	115	95	140	10	3	130	130	100	163	230	267
71	112	90	45	14	30	5	11	16	71	7	85	70	105	M6	2.5	130	110	160	10	3.5	145	145	106	177	255	310
80	125	100	50	19	40	6	15.5	16	80	10	100	80	120	M6	3	165	130	200	12	3.5	160	165	116	196	295	357
90S	140	100	56	24	50	8	20	21.5	90	10	115	95	140	M8	3	165	130	200	12	3.5	180	185	122	212	335	362
90L	140	125	56	24	50	8	20	21.5	90	10	115	95	140	M8	3	165	130	200	12	3.5	180	185	122	212	360	388
100L	160	140	63	28	60	8	24	31	100	12	130	110	160	M8	3.5	215	180	250	15	4	205	215	155	255	380	453
112M	190	140	70	28	60	8	24	31	112	12	130	110	160	M8	3.5	215	180	250	15	4	245	240	173	285	400	470
132S	216	140	89	38	80	10	33	41	132	12	165	130	200	M10	3.5	265	230	300	15	4	280	275	195	327	475	523
132M	216	178	89	38	80	10	33	41	132	12	165	130	200	M10	3.5	265	230	300	15	4	280	275	195	327	515	563

L\* for brake motor

## Frequency at 60 Hz

All electrical data in this catalogue refer to three-phase wound motors at 50 Hz. These may be connected to 60 Hz, taking into account the multiplier coefficients in the table below:

Rated voltage at 50 Hz	Volt a 60 Hz	Rated power W	rpm	In	Ist/In	Tstart/In	Tmax/Tn
220	220	1	1.2	1.2	0.8	0.8	0.8
220	230	1.05	1.2	1.15	0.85	0.85	0.85
220	240	1.06	1.2	1.1	0.87	0.87	0.87
230	230	1	1.2	1.2	0.8	0.8	0.8
230	240	1.1	1.2	1.15	0.9	0.9	0.9
230	260	1.2	1.2	1	1	1	1
400	400	1	1.2	1.2	0.8	0.8	0.8
400	440	1.06	1.2	1.1	0.87	0.87	0.87
400	460	1.2	1.2	1	1	1	1
400	480	1.25	1.2	1	1.1	1.1	1.1
440	440	1	1.2	1.2	0.8	0.8	0.8
500	500	1	1.2	1.2	0.8	0.8	0.8
500	550	1.06	1.2	1.1	0.87	0.87	0.87

Where you can notice that a motor wound at 50 Hz can work at 60 Hz with the same rated voltage, power (W), with a 1.2 increase of rpm and rated current In, also a 0.8 reduction of starting current Ist/In, of the starting torque Tstart/Tn and of the maximum torque Tmax/Tn.

Ist = Starting current

In = Rated current

Imax = Max. current

Tstart = Starting torque

Tn = Rated torque

Tmax = Max. torque