

Squirrel-cage motors

1MA · EEx e II type of protection · Aluminium housing

Selection and ordering data

Rated output	Temperature classes	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current	Stalling torque	t _E time For temperature classes		Torque class	Moment of inertia J	Weight Type of constr. IM B 3
				Rated speed	Efficiency $\eta^{1)}$	Power factor p.f.	Rated current at 380 V to 420 V	Rated torque				T1	T3			
kW				rpm	%		A	Nm				s	s	KL	kg m ²	approx. kg
Temperature classes T1 to T3, IP55 degree of protection, temperature class F																ATEX
3000 rpm, 2-pole, 50 Hz																
0.18	T1-T3	63 M	1MA7 060-2BA ..	2810	66	0.74	0.55	0.61	2.3	4.4	2.3	30	27	16	0.00018	4
0.25	T1-T3		1MA7 063-2BA ..	2800	68	0.85	0.70	0.85	2.2	4.4	2.3	19	16	16	0.00023	4
0.37	T1-T3	71 M	1MA7 070-2BA ..	2825	73	0.80	0.93	1.3	2.3	5.6	3.0	28	25	16	0.00035	6
0.55	T1-T3		1MA7 073-2BA ..	2785	72	0.84	1.4	1.9	3	5.2	2.6	18	13	16	0.00045	7
0.75	T1-T3	80 M	1MA7 080-2BA ..	2845	73	0.85	1.81	2.5	2.5	6.2	2.7	13	11	16	0.00085	9
1.1	T1-T3		1MA7 083-2BA ..	2855	79	0.85	2.5	3.7	2.8	6.4	3	12	10	16	0.0011	11
1.3	T1-T3	90 S	1MA7 090-2BA ..	2850	78	0.88	2.9	4.4	2.6	6.2	2.8	12	11	16	0.0015	13
1.85	T1-T3	90 L	1MA7 096-2BA ..	2860	81	0.88	3.95	6.2	2.8	7.2	2.8	9	8	16	0.002	16
2.5	T1-T3	100 L	1MA7 106-2BA ..	2865	82	0.87	5.3	8.3	2.6	7.4	2.8	9	8	16	0.0038	21
3.3	T1-T3	112 M	1MA7 113-2BB ..	2875	84	0.89	6.7	11	2.1	6.6	2.3	10	9	13	0.0055	27
4.6	T1-T3	132 S	1MA7 130-2BB ..	2920	83	0.90	9.2	15	1.9	6.8	2.5	15	13	13	0.016	53
5.5	T3		1MA7 131-2BB .. ²⁾	2925	86	0.92	10.6	18	2.2	7.7	2.7	15	13	13	0.021	44
6.5	T1, T2			2900	85	0.93	12.5	21	1.9	6.5	2.3	12	7	13	0.021	44
7.5	T3	160 M	1MA7 163-2BB .. ²⁾	2945	87.5	0.90	14.3	24	2.2	7.6	3.1	29	18	13	0.034	67
9.5	T1, T2			2920	87	0.91	18.1	31	1.7	6.0	2.4	24	-	13	0.034	67
10	T3	160 M	1MA7 164-2BB .. ²⁾	2940	88.5	0.92	18.6	33	2.1	7.6	2.9	23	12	13	0.04	72
13 ●	T1, T2			2910	87.5	0.92	24.5	43	1.6	5.8	2.2	16	-	13	0.04	72
12.5	T3	160 L	1MA7 166-2BB .. ²⁾	2940	89	0.93	23.0	41	2.3	7.6	3	21	9	13	0.052	82
16 ●	T1, T2			2910	87	0.93	30.0	53	1.8	5.8	2.3	15	-	13	0.052	82
1500 rpm, 4-pole, 50 Hz																
0.12	T1-T3	63 M	1MA7 060-4BB ..	1375	55	0.66	0.52	0.83	1.9	2.6	1.9	35	30	13	0.0003	4
0.18	T1-T3		1MA7 063-4BB ..	1330	57	0.75	0.62	1.3	1.9	2.7	1.9	30	25	13	0.0004	4
0.25	T1-T3	71 M	1MA7 070-4BB ..	1310	60	0.77	0.80	1.8	1.9	3.1	1.9	50	40	13	0.0006	6
0.37	T3		1MA7 073-4BB ..	1355	67	0.74	1.10	2.6	1.9	3.7	2.1	35	29	13	0.00083	7
0.55	T1-T3	80 M	1MA7 080-4BA ..	1390	73	0.73	1.59	3.8	2.4	4.6	2.5	24	21	16	0.0015	9
0.75	T1-T3		1MA7 083-4BA ..	1395	73	0.75	2.05	5.1	2.6	4.8	2.6	19	16	16	0.0018	11
1	T1-T3	90 S	1MA7 090-4BA ..	1420	77	0.78	2.5	6.7	2.2	5.4	2.5	16	14	16	0.0028	13
1.35	T1-T3	90 L	1MA7 096-4BA ..	1415	78	0.82	3.1	9.1	2.3	5.9	2.5	15	13	16	0.0035	16
2	T1-T3	100 L	1MA7 106-4BA ..	1420	80	0.82	4.5	14	2.5	6.4	2.7	13	11	16	0.0048	20
2.5	T1-T3		1MA7 107-4BA ..	1415	81	0.83	5.5	17	2.6	6.4	2.7	12	10	16	0.0058	23
3.6	T1-T3	112 M	1MA7 113-4BA ..	1435	85	0.83	7.5	24	2.6	7.2	2.9	10	9	16	0.011	29
5	T1-T3	132 S	1MA7 130-4BA ..	1445	86	0.82	10.4	33	2.7	6.6	3.2	10	9	16	0.021	42
6.8	T1-T3	132 M	1MA7 133-4BA ..	1460	87	0.82	14.0	44	3	7.7	3.6	10	9	16	0.027	61
10	T1-T3	160 M	1MA7 163-4BB ..	1455	88	0.87	19.7	66	2.3	6.5	2.7	17	10	13	0.052	67
13.5	T1-T3	160 L	1MA7 166-4BB ..	1465	89	0.84	27	88	2.4	6.9	3	18	9	13	0.057	107
1000 rpm, 6-pole, 50 Hz																
0.25	T1-T3	71 M	1MA7 073-6BA ..	850	63	0.72	0.81	2.8	2.2	3	2.1	130	70	16	0.0009	7
0.37	T1-T3	80 M	1MA7 080-6BA ..	920	68	0.7	1.14	3.6	2.3	3.6	2.4	60	55	16	0.0015	9
0.55	T1-T3		1MA7 083-6BA ..	930	69	0.67	1.75	5.6	2.4	4	2.4	30	27	16	0.0025	13
0.65	T1-T3	90 S	1MA7 090-6BA ..	915	70	0.75	1.8	6.8	2.3	3.9	2.4	35	30	16	0.0028	14
0.95	T1-T3	90 L	1MA7 096-6BA ..	910	72	0.75	2.6	9.9	2.3	4.1	2.4	22	19	16	0.0038	16
1.3	T1-T3	100 L	1MA7 106-6BA ..	935	77	0.73	3.35	13	2.4	4.8	2.5	26	26	16	0.0063	20
1.9	T1-T3	112 M	1MA7 113-6BB ..	940	79	0.76	4.7	19	2.3	5	2.5	19	16	13	0.011	24
2.6	T1-T3	132 S	1MA7 130-6BB ..	945	79	0.75	6.5	26	1.8	4.4	2.4	21	18	13	0.015	36
3.5	T1-T3	132 M	1MA7 133-6BB ..	955	81	0.72	9.0	35	2.3	5.1	2.8	16	13	13	0.019	41
4.8	T1-T3	132 M	1MA7 134-6BB ..	950	83	0.76	11.4	48	2.4	5.6	2.8	13	11	13	0.025	50
6.6	T1-T3	160 M	1MA7 163-6BB ..	960	85	0.75	14.9	65	2.7	6.4	3.1	18	9	13	0.041	70
9.7	T1-T3	160 L	1MA7 166-6BB ..	965	88	0.76	21.0	96	2.8	7.7	2.2	15	8	13	0.055	105

● Used acc. to class F.

Order No. supplements

Motor type	Penultimate position: Voltage identifier					Final position: Type of construction identifier						
	50 Hz					IM B 3	Price supplement					
	230 VΔ / 400 VY	400 VΔ / 690 VY	500 VY	500 VΔ		IM B 5	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35		
	For Δ -connection, overload protection with phase-failure protection must be provided.											
1MA7 060 to 1MA7 096	1	6 ⁴⁾	3 ⁵⁾	–		0	1	4	2	3	6	
1MA7 106 to 1MA7 166	1	6	3	5		0	1	4	2	3	6	

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) With reference to 75 °C.

2) For voltage identifier "9", separate versions for T1, T2 and T3. For order code A11, only possible for one power output in each case.

3) For connection to 230 V, parallel supply cables are required.

4) Not possible for 1MA7 06 motors.

5) Not possible for 1MA7 060-4 motors.