

TECHNICAL DATA / LOW VOLTAGE (400V - 50Hz)

RATED OUTPUT kW	MOTOR TYPE	SPEED rpm min ⁻¹	PERFORMANCE AT RATED OUTPUT				EFFICIENCY 3/4 LOAD η %	FOR D.O.L STARTING		BREAKDOWN TORQUE T_{max}/T_n	SOUND PRESSURE LEVEL LpA dB(A)	MOMENT OF INERTIA J kg m ²	WEIGHT IM 1001 (IM B3) Approx. kg
			TORQUE T_n N m	CURRENT I_n A	EFFICIENCY η %	POWER FACTOR $\cos \eta$		I_s/I_n	T_s/T_n				

3000 min⁻¹ = 2 poles - 50 Hz

0.18	MAA 63 MA2	2710	0.63	0.55	63.0	0.75	62.1	6.0	2.2	2.4	61	0.00020	4.0
0.25	63 MB2	2710	0.88	0.71	65.0	0.78	64.5	6.0	2.2	2.4	61	0.00023	4.4
0.37	63 MC2*	2710	1.30	1.05	65.0	0.78	64.5	6.0	2.2	2.4	62	0.00030	4.9
0.37	71 MA2	2730	1.29	0.97	70.0	0.79	69.5	6.0	2.2	2.4	64	0.00040	5.6
0.55	71 MB2	2760	1.90	1.42	71.0	0.79	71.0	6.0	2.2	2.4	64	0.00045	6.1

1500 min⁻¹ = 4 poles - 50 Hz

0.12	MAA 63 MA4	1350	0.85	0.47	57.0	0.84	52.6	6.0	2.2	2.4	52	0.00025	3.9
0.18	63 MB4	1350	1.27	0.68	59.0	0.85	57.7	6.0	2.2	2.4	52	0.00030	4.3
0.25	63 MC4*	1350	1.77	0.91	60.0	0.86	58.7	6.0	2.2	2.4	54	0.00040	4.8
0.25	71 MA4	1350	1.77	0.84	60.0	0.72	59.2	6.0	2.2	2.4	55	0.00050	5.4
0.37	71 MB4	1370	2.58	1.11	65.0	0.74	64.5	6.0	2.2	2.4	55	0.00060	6.2
0.55	71 MC4*	1380	3.81	1.60	66.0	0.75	65.5	6.0	2.2	2.4	57	0.00076	7.3
0.55	80 MA4	1370	3.80	1.60	67.0	0.75	66.0	4.2	2.0	2.2	50	0.00130	9.0

1000 min⁻¹ = 6 poles - 50 Hz

0.09	MAA 63 MA6*	840	1.02	0.51	42.0	0.61	38.1	3.5	2.0	2.0	50	0.00025	4.2
0.12	63 MB6*	850	1.35	0.62	45.0	0.62	41.1	3.5	2.0	2.0	50	0.00030	4.8
0.18	71 MA6	880	1.95	0.70	56.0	0.66	52.5	4.0	1.6	1.7	52	0.0005	6
0.25	71 MB6	900	2.65	0.87	59.0	0.70	55.3	4.0	2.1	2.2	52	0.0006	6.5
0.37	71 MC6	890	3.97	1.27	61.0	0.69	57.2	4.0	2.0	2.1	54	0.0009	7.2
0.37	80 MA6	900	3.93	1.23	62.0	0.70	59.4	4.0	1.9	1.9	56	0.0024	8.2
0.55	80 MB6	900	5.84	1.65	67.0	0.72	64.6	4.0	2.0	2.3	56	0.0027	9.9

750 min⁻¹ = 8 poles - 50 Hz

0.09	MAA 71 MA8	680	1.3	0.48	48.0	0.56	45.4	3.0	1.5	1.7	50	0.0005	6.0
0.12	71 MB8*	690	1.7	0.58	51.0	0.59	48.2	2.7	1.6	1.7	50	0.0006	6.8
0.18	80 MA8	680	2.5	0.84	51.0	0.61	48.3	2.8	1.5	1.7	52	0.0024	9.9
0.25	80 MB8	680	3.5	1.06	56.0	0.61	53.3	2.7	1.6	2.0	52	0.0027	10.9
0.37	80 MC8	680	5.2	1.35	63.0	0.63	59.9	2.8	1.6	1.8	56	0.0035	14.8
0.37	90 S8	680	5.2	1.37	59.3	0.66	56.5	3.0	1.9	2.0	56	0.0037	13.4
0.55	90 L8	680	7.7	1.85	66.0	0.65	62.6	3.0	1.6	1.8	56	0.0050	17.2
0.75	100 LA8	710	10.1	2.45	66.0	0.67	65.1	3.5	1.7	2.1	59	0.0090	17.5
1.1	100 LB8	710	14.8	3.20	72.0	0.69	70.8	3.5	1.7	2.1	59	0.0120	19.7
1.5	112 MA8	710	20.2	4.30	74.0	0.68	74.0	4.2	1.8	2.1	61	0.0170	25.6
2.2	132 SA8	720	29.2	5.96	75.0	0.71	75.5	5.5	2.0	2.0	64	0.0380	35.5
3	132 MA8	720	39.8	7.70	77.0	0.73	77.9	5.5	2.0	2.0	64	0.0460	45.0
4	160 MA8	730	52.4	9.89	80.0	0.73	79.1	6.0	1.9	2.1	68	0.080	60.0
5.5	160 MB8	720	73.0	12.85	83.5	0.74	82.6	6.0	2.0	2.1	68	0.092	72.0
7.5	160 L8	720	99.5	17.00	85.0	0.75	84.6	6.0	1.9	2.2	68	0.110	92.0

n.a.: Rated output excluded by CEMEP agreement; *: Not included in IEC 60072-1 standards; T_{max} = Breakdown torque; T_s = Starting torque; I_s = Starting current

TECHNICAL CHARACTERISTICS

- International standards: IEC 60034
- Rated outputs and frame sizes in accordance with IEC 50347 standards, where applicable
- Continuous duty (S1) with sufficient thermal margins, to withstand short overloads
- Motors designed according to the rules given by IEC 60034 group and the EC's harmonised ones
- Protection degree IP 55
- Insulation class F
- Temperature rise compatible with class B
- Maximum ambient temperature: +40°C
- Installation ≤1000 m a.s.l.
- Normal noise level of less than 80 db(A) for 4 or more poles

CONSTRUCTION MATERIALS

- Frame - Aluminium
- End shields - Aluminium
- Fan cowl - Steel
- Fan - Plastic
- Terminal box - Aluminium



TERMINAL BOX AND CABLE ENTRY

The terminal boxes of MAA series motors are placed on top of the electrical machine (considering IM 1001 - B3 as reference) and are normally equipped with 6 terminals. The motors from 63 up to 160 frame size included allow the user to mount the terminal box either on the right side or the left one, as seen from the D-end side. The terminal box can be rotated in steps of 90° on motors up to 160 frame size included.

PERFORMANCES @ FINAL NETWORK FED

The motors performances, when fed at the following voltage/frequencies, will be obtained applying the following multiplying K factors.

Frame Size	Clearance Holes For Metric Cableglands	Type Of Terminal	Terminal Screw Thread
63	1xM16	THREADED TERMINALS	M4
71 - 90	1xM20	THREADED TERMINALS	M4
100	2xM20	THREADED TERMINALS	M5
112 - 132	2xM25	THREADED TERMINALS	M5
160	2xM32	THREADED TERMINALS	M6

SUPPLY VOLTAGE CONNECTION AND FREQUENCY		K FACTORS				
		POWER	SPEED	TORQUE	STARTING TORQUE	BREAKDOWN TORQUE
220 V	Δ 50 Hz	1	1	1	0.9	0.9
240 V					1.1	1.1
380 V	Y 50 Hz				0.9	0.9
415 V					1.1	1.1
440 V	Y 60 Hz	1.1	1.2	0.9	0.8	0.9
460 V		1.2		1	0.9	1
480 V					1	1

DIMENSIONS

Frame Size		Poles													FLANGE B5 - V1						B14						SHAFT EXTENSION					
			A	AB	AC	B	BB	C	H	HA	HD	K	L	M	N	P	S	T	M	N	P	LA	S	T	D	TOLL.	E	Fh9	GA	DB	EG	
63		2-8	100	120	122	80	100	40	63	7	173	7	215	115	95	140	9	3	75	60	90	10	M5	2,5	11	j6	23	4	12,5	M4	10	
71		2-8	112	132	137	90	110	45	71		188		254	130	110	160			3,5	85	70		105		M6		14	30	5	16	M5	12,5
80		2-8	125	160	158	100	125	50	80	8	217	9	290			200	11	3,5	100	80	120	10	M6	3	19	j6	40	6	21,5	M6	19	
90	S	2-8	140	175	177	100	155	56	90	10	235		310						165	130	200		11		3,5		115	95	140	M8	3	24
	L	2-8				125						365																				
100		2-8	160	196	197	140	180	63	100	12	252	11	386	215	180	250	14	4	130	110	160	11	M8	3,5	28	j6	60	8	31	M10	22	
112		2-8	190	220				70	112		292		395																			
132	S	2-8	216	252	253	140	226	89	132	15	325	11	436	265	230	300	14	4	165	130	200	17	M10	3,5	38	k6	80	10	41	M12	28	
	M	2-8				178							500																			
160	M	2-8	254	290	314	210	296	108	160	20	390	14,5	640	300	250	350	18	5							42		110	12	45	M16	36	
	L	2-8				254																										

DRAWINGS

