



MMG Model E 0.25 - 315 kW

motralec

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Competitively priced quality motors

Grundfos is one of the world's leading manufacturers of pumps and pumping equipment. Therefore, quality electrical motors are a major priority of ours. In addition to manufacturing our own range of quality motors, we contract some of the world's well-known manufacturers to produce motors that match the high standard of our pumps for application in building services, industry and water supply.

Grundfos quality throughout

The Grundfos MMG-E motors are manufactured in China especially for Grundfos. To secure the high quality standard that Grundfos provides regular quality controls are carried out by Grundfos. This means that the motors have been adapted for use with Grundfos pumps and that they comply with Grundfos standards and Grundfos

quality requirements throughout. The MMG-E motors are easily distinguishable as Grundfos motors and they carry the Grundfos logo. Furthermore, the MMG-E motors are supported by the Grundfos documentation system, WinCAPS, for spareparts etc.

The MMG-E motor range is available in sizes from 0.25 to 315 kW, in 2, 4, and 6-pole versions and in the standard voltage interval that we use at Grundfos. The MMG-E motors are available in both 50 Hz and 60 Hz versions.

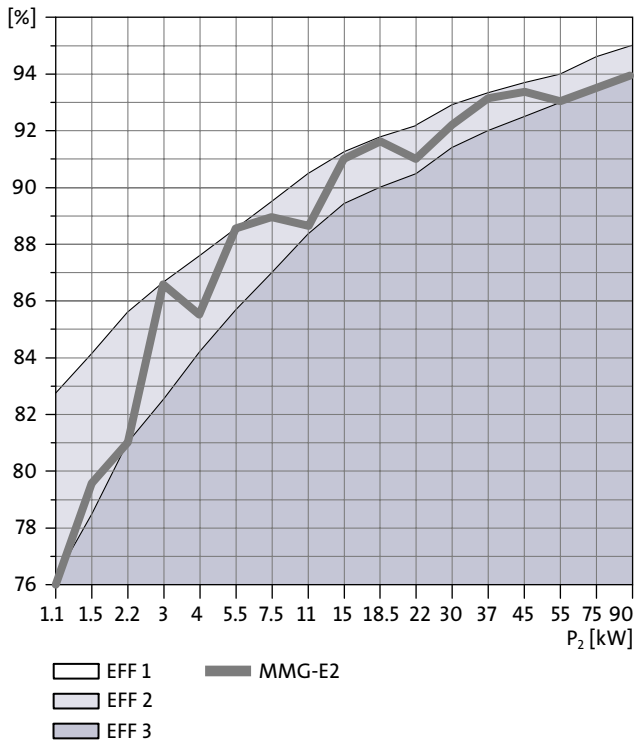
Several models of the MMG-E motors are equipped with extra large, durable bearings. The drive end bearings are locked. All models are fitted with drain holes, and motors from frame size 160 and up can be relubricated.

Product range overview

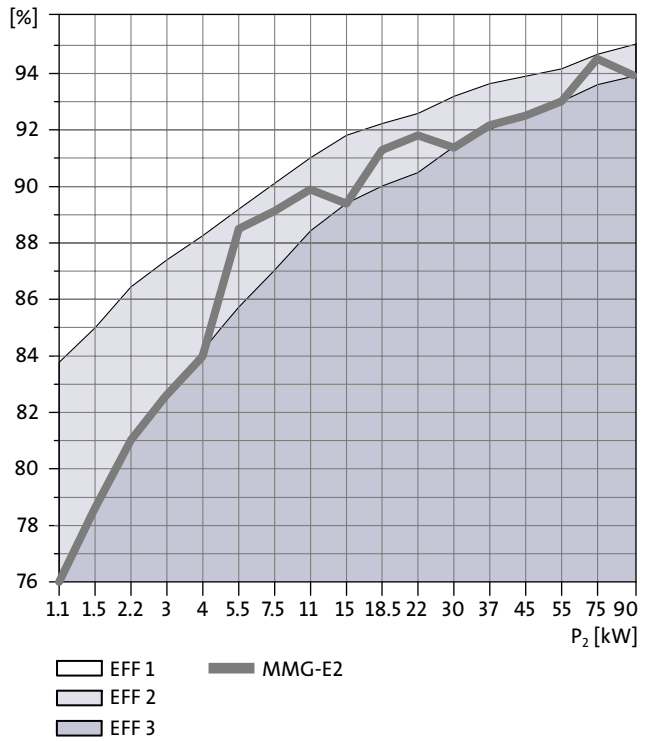
Model	Phases	Power	2-pole		4-pole		6-pole	
			Type designation	Efficiency class 1-2-3	Type designation	Efficiency class 1-2-3	Type designation	Efficiency class 1-2-3
E	3	0.25		-	MMG071A-4-E	-		-
	3	0.37	MMG071A-2-E	-	MMG071B-4-E	-	MMG080MA-6-E2	-
	3	0.55	MMG071B-2-E	-	MMG080A-4-E	-	MMG080MB-6-E2	-
	3	0.75	MMG080A-2-E	-	MMG080B-4-E	-	MMG090S-6-E	-
	3	1.10	MMG080B-2-E2	2	MMG090S-4-E2	2	MMG090L-6-E	-
	3	1.50	MMG090S-2-E2	2	MMG090L-4-E2	2	MMG100L-6-E	-
	3	2.20	MMG090L-2-E2	2	MMG100L-4-E2	2	MMG112M-6-E	-
	3	3.00	MMG100L-2-E2	2	MMG100L-4-E2	2	MMG132S-6-E	-
	3	4.00	MMG112M-2-E2	2	MMG112M-4-E2	2	MMG132MA-6-E	-
	3	5.50	MMG132SA-2-E2	2	MMG132S-4-E2	2	MMG132MB-6-E	-
	3	7.50	MMG132SB-2-E2	2	MMG132M-4-E2	2	MMG160M-6-E	-
	3	11.0	MMG160MA-2-E2	2	MMG160M-4-E2	2	MMG160L-6-E	-
	3	15.0	MMG160MB-2-E2	2	MMG160L-4-E2	2	MMG180L-6-E	-
	3	18.5	MMG160L-2-E2	2	MMG180M-4-E2	2	MMG200LA-6-E	-
	3	22.0	MMG180M-2-E2	2	MMG180L-4-E2	2	MMG200LB-6-E	-
	3	30.0	MMG200LA-2-E2	2	MMG200L-4-E2	2	MMG225M-6-E	-
	3	37.0	MMG200LB-2-E2	2	MMG225S-4-E2	2	MMG250M-6-E	-
	3	45.0	MMG225M-2-E2	2	MMG225M-4-E2	2	MMG280S-6-E	-
	3	55.0	MMG250M-2-E2	2	MMG250M-4-E2	2	MMG280M-6-E	-
	3	75.0	MMG280S-2-E2	2	MMG280S-4-E2	2	MMG315S-6-E	-
3	90.0	MMG280M-2-E2	2	MMG280M-4-E2	2	MMG315M-6-E	-	
3	110	MMG315S-2-E	-	MMG315S-4-E	-	MMG315L-6-E	-	
3	132	MMG315M-2-E	-	MMG315M-4-E	-	-	-	
3	160	MMG315LA-2-E	-	MMG315LA-4-E	-	-	-	
3	200	MMG315LB-2-E	-	MMG315LB-4-E	-	-	-	
3	250	MMG355M-2-E	-	MMG355M-4-E	-	-	-	



Motor efficiency, 2-pole motors



Motor efficiency, 4-pole motors



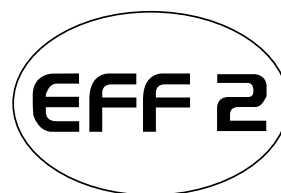
Motor efficiency

The curves show the efficiency of the Grundfos MMG-E motors.

Product range

The Grundfos MMG-E motors are suitable for use with a variety of Grundfos pump models, for instance, the Grundfos CR range, the TP Series 100/200/300/400, and the NB and NK end-suction centrifugal pumps.

On the previous page is an overview of the current range of standard Grundfos MMG-E motors. The range is continuously being developed as new versions and voltages are being added. Customised versions are available upon request.



Approvals

The Grundfos MMG-E motors meet international design standards and have been approved by third-party approval body, Nemko, to be in compliance with the following European directives for safety and EMC standards:

- Low Voltage Directive 72/23/EEC
- EMC Directive 89/336/EEC

Standards

The Grundfos MMG-E motors are designed, manufactured and tested according to the internationally recognised standards for electrical motors: IEC60034-1 and IEC60072-1/EN50347.

Standard configuration of Grundfos MMG-E motors
Mountings: V18/B14, V1/B5, B3, B34 and B35.
IP55 with drain plugs closed.

Duty cycle: S1.

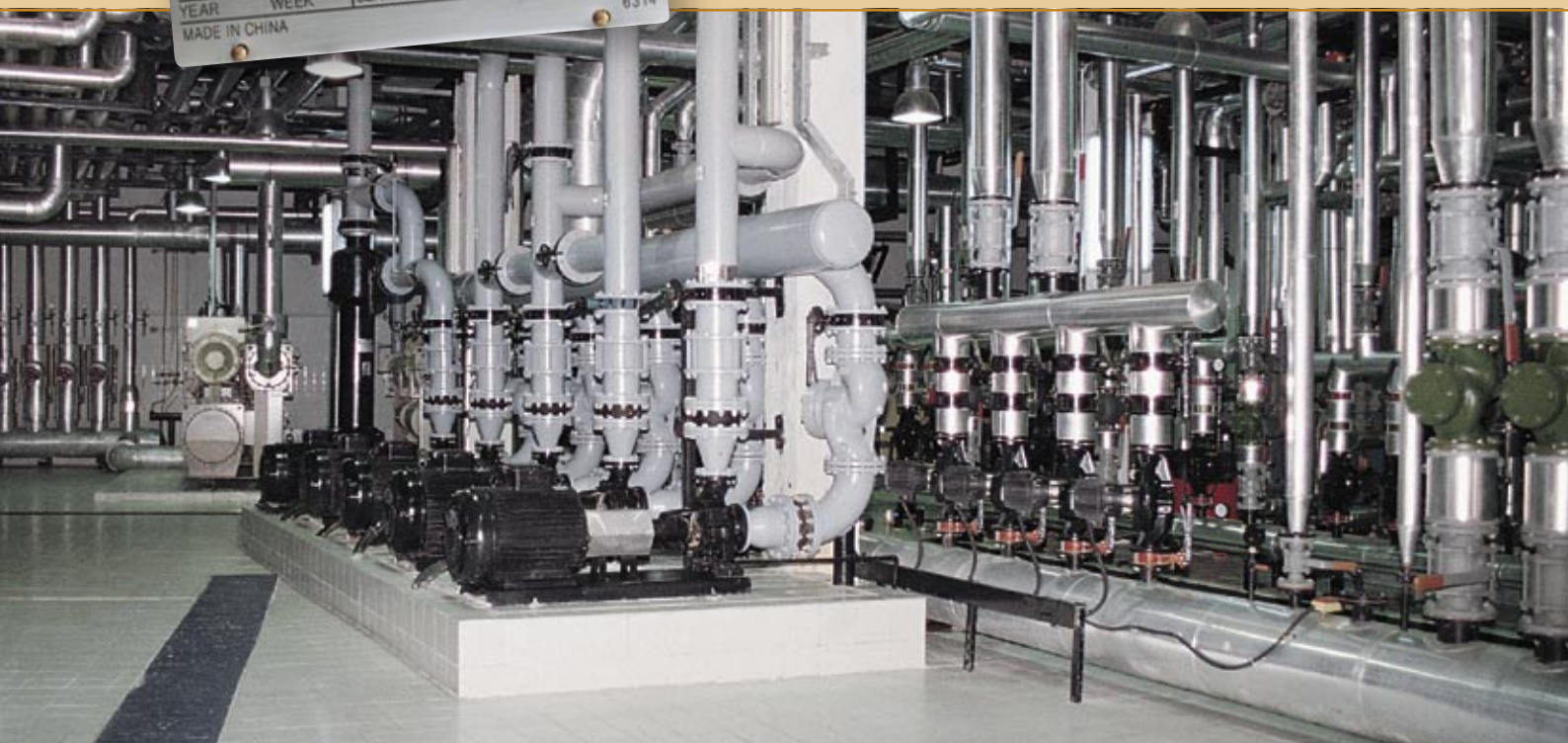
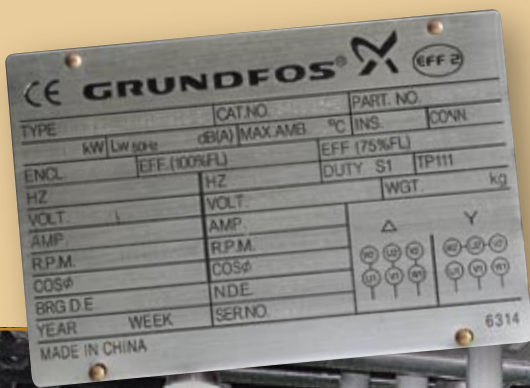
Insulation class F with class B temperature rise according to IEC 62114.

PTC sensors according to DIN 44082 from 3.0 kW and up.

Maximum ambient temperature 40°C.

TP111 according to IEC 60034-11.

EFF2 according to CEMEP as standard in the CEMEP range.



Bearings

The Grundfos MMG-E motors are fitted with locked bearings at the drive end. From frame size 160 and up, the bearings can be relubricated. Lubrication is done via tapered lubrication nipples DIN 71412 (H1 straight).

Only high-quality bearings from the world's leading manufacturers are used for the Grundfos MMG-E motors:

- SKF AB (Sweden)
- NSK Corporation (Japan)
- NTN Bearing Corporation (Japan)
- FAG Kugelfischer AG & Co KG (Germany)

These manufacturers all comply with international standards, which means that replacement bearings are readily available throughout the world and the bearings are fully interchangeable regardless of make.

Bearing size overview

Power	Bearing sizes, 2-pole motors		Bearing sizes, 4-pole motors		Bearing sizes, 6-pole motors	
	All models		All models		All models	
	Drive end	Non-drive end	Drive end	Non-drive end	Drive end	Non-drive end
0.25	-	-	6202 2Z	6202 2Z	-	-
0.37	6202 2Z	6202 2Z	6202 2Z	6202 2Z	6204ZZ	6204ZZ
0.55	6202 2Z	6202 2Z	6204 2Z	6204 2Z	6204ZZ	6204ZZ
0.75	6204 2Z	6204 2Z	6204 2Z	6204 2Z	6205ZZ	6205ZZ
1.10	6204 2Z	6204 2Z	6205 2Z	6205 2Z	6205ZZ	6205ZZ
1.50	6205 2Z	6205 2Z	6205 2Z	6205 2Z	6206ZZ	6206ZZ
2.20	6205 2Z	6205 2Z	6206 2Z	6206 2Z	6206ZZ	6206ZZ
3.00	6206 2Z	6206 2Z	6206 2Z	6206 2Z	6208ZZ	6208ZZ
4.00	6206 2Z	6206 2Z	6206 2Z	6206 2Z	6208ZZ	6208ZZ
5.50	6208 2Z	6208 2Z	6208 2Z	6208 2Z	6208ZZ	6208ZZ
7.50	6208 2Z	6208 2Z	6208 2Z	6208 2Z	6309	6209
11.0	6209	6209	6309	6209	6309	6209
15.0	6209	6209	6309	6209	6311	6211
18.5	6209	6209	6311	6211	6312	6212
22.0	6211	6211	6311	6211	6312	6212
30.0	6212	6212	6312	6212	6313	6312
37.0	6212	6212	6313	6312	6314	6313
45.0	6312	6312	6313	6312	6317	6314
55.0	6313	6313	6314	6313	6317	6314
75.0	6314	6314	6317	6314	6319	6319
90.0	6314	6314	6317	6314	6319	6319
110	6317	6317	6319	6319	6319	6319
132	6317	6317	6319	6319	-	-
160	6317	6317	6319	6319	-	-
200	6317	6317	6319	6319	-	-
250	6319	6319	6322	6322	-	-
315	6319	6319	6322	6322	-	-

Noise

The noise level of the Grundfos MMG-E motors complies with the ISO 3743 and ISO 9614-2 standards, and the motors furthermore comply with the requirements and limits of the IEC60034-9 standard. The tolerance of the stated value is +3dB(A).

Power	2-pole	4-pole	6-pole
	L_{pFA} [dB(A)]	L_{pFA} [dB(A)]	L_{pFA} [dB(A)]
0.25	-	48	-
0.37	60	54	53
0.55	64	54	53
0.75	64	54	54
1.10	66	55	54
1.50	68	55	55
2.20	68	56	59
3.00	70	56	63
4.00	70	57	63
5.50	72	63	63
7.50	72	63	67
11.0	78	67	67
15.0	78	67	67
18.5	78	68	70
22.0	82	68	70
30.0	84	71	70
37.0	84	73	72
45.0	84	73	74
55.0	85	75	74
75.0	86	78	79
90.0	86	78	79
110	89	85	79
132	89	85	79
160	92	89	-
200	92	89	-
250	95	93	-
315	95	93	-

Voltage range

The technical data for the motors cover both 50 and 60 Hz versions. Contrary to most other motor makes, the Grundfos MMG-E motors offer the same power output in 50 and 60 Hz versions.

Low voltage range	
220-240 Δ/380-415 Y, 50 Hz	220-277 Δ/380-480 Y, 60 Hz
High voltage range	
380-415 Δ/660-690 Y, 50 Hz	380-480 Δ/660-690 Y, 60 Hz



Electrical data

MMG Model E 2-pole · low voltage · 50/60 Hz

MMG-E														
Low voltage · 2-pole motors 50 Hz 230 V Δ/400 V Y														
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _f /I _N [%]	LRT M _v /M _N [%]	BT M _{Br} /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-2-E	-	0.37	1.74/1.00	0.74	0.75	0.77	72.5	71.5	71.5	2800	1.28	510	245	290
MMG071B-2-E	-	0.55	2.26/1.30	0.73	0.73	0.82	73.0	79.5	73.5	2820	1.88	590	330	330
MMG080A-2-E	-	0.75	3.10/1.80	0.74	0.79	0.82	71.5	74.0	76.0	2840	2.55	605	248	280
MMG080B-2-E2	2	1.10	4.35/2.50	0.69	0.77	0.85	74.0	75.0	76.0	2840	3.75	605	224	260
MMG090S-2-E2	2	1.50	5.60/3.25	0.75	0.80	0.83	77.0	79.0	79.5	2850	5.05	610	235	275
MMG090L-2-E2	2	2.20	8.15/4.70	0.77	0.81	0.84	69.5	82.0	81.0	2850	7.40	670	255	280
MMG100L-2-E2	2	3.00	10.2/5.90	0.75	0.71	0.86	80.5	86.0	86.5	2880	9.95	780	270	315
MMG112M-2-E2	2	4.00	13.6/7.90	0.83	0.87	0.89	85.0	86.5	86.5	2900	13.2	742	207	290
MMG132SA-2-E2	2	5.50	17.4/10.0	0.81	0.85	0.88	87.0	88.5	88.5	2910	18.2	725	220	300
MMG132SB-2-E2	2	7.50	25.5/14.8	0.83	0.87	0.88	84.0	89.5	89.0	2900	24.5	645	214	285
MMG160MA-2-E2	2	11.0	34.5/20.0	0.84	0.87	0.89	88.0	88.5	88.5	2930	36.0	585	222	265
MMG160MB-2-E2	2	15.0	47.5/27.5	0.84	0.86	0.87	90.5	91.0	91.0	2930	49.0	590	220	270
MMG160L-2-E2	2	18.5	57.0/33.0	0.84	0.88	0.89	91.5	92.0	91.5	2940	60.0	610	238	275
MMG180M-2-E2	2	22.0	67.5/39.0	0.84	0.87	0.89	90.0	91.0	91.0	2940	71.5	730	250	320
MMG200LA-2-E2	2	30.0	91.5/53.0	0.83	0.86	0.88	88.5	91.5	92.0	2950	97.0	735	238	315
MMG200LB-2-E2	2	37.0	110/64.0	0.84	0.87	0.90	92.5	93.0	93.0	2950	120	680	218	300
MMG225M-2-E2	2	45.0	136/78.0	0.85	0.88	0.89	91.0	92.5	93.5	2970	144	740	234	290
MMG250M-2-E2	2	55.0	166/95.0	0.82	0.88	0.89	91.0	93.0	93.0	2970	176	790	200	230
MMG280S-2-E2	2	75.0	222/128	0.83	0.88	0.90	92.0	93.5	93.5	2980	240	790	200	230
MMG280M-2-E2	2	90.0	265/154	0.84	0.89	0.90	95.0	93.5	95.0	2980	290	720	260	330
MMG315S-2-E	-	110	325/188	0.85	0.89	0.90	92.0	94.0	94.0	2980	350	720	204	300
MMG315M-2-E	-	132	385/222	0.88	0.90	0.90	94.5	95.0	95.0	2980	420	750	180	220
MMG315LA-2-E	-	160	470/270	0.88	0.90	0.91	94.5	95.4	95.7	2980	510	595	194	295
MMG315LB-2-E	-	200	570/330	0.87	0.91	0.92	94.0	94.5	95.0	2980	640	580	194	285
MMG355M-2-E	-	250	720/415	0.89	0.91	0.92	93.0	95.0	95.5	2980	795	620	170	300
MMG355L-2-E	-	315	900/525	0.85	0.89	0.91	93.5	94.5	95.5	2980	1000	695	204	234
Low voltage · 2-pole motors 60 Hz 220 V Δ/380 V Y														
MMG071A-2-E	-	0.37	1.52/0.878	0.72	0.82	0.88	67.0	67.4	70.5	3330	1.06	400	180	220
MMG071B-2-E	-	0.55	2.10/1.21	0.84	0.87	0.89	79.5	78.5	77.0	3340	1.57	515	242	206
MMG080A-2-E	-	0.75	2.95/1.70	0.83	0.86	0.87	83.5	81.5	79.0	3360	2.14	465	162	172
MMG080B-2-E2	2	1.10	4.15/2.40	0.82	0.86	0.87	84.5	82.5	79.5	3350	3.14	475	146	156
MMG090S-2-E2	2	1.50	5.75/3.32	0.80	0.84	0.87	84.5	80.0	78.5	3380	4.25	565	186	188
MMG090L-2-E2	2	2.20	8.15/4.71	0.84	0.86	0.88	76.0	77.0	80.0	3380	6.20	530	190	182
MMG100L-2-E2	2	3.00	10.8/6.24	0.90	0.90	0.91	82.5	82.5	81.5	3450	8.30	565	178	192
MMG112M-2-E2	2	4.00	13.6/7.85	0.88	0.90	0.91	85.5	85.5	85.0	3470	11.0	635	194	202
MMG132SA-2-E2	2	5.50	18.4/10.6	0.89	0.90	0.91	88.0	88.0	87.5	3480	15.0	630	188	210
MMG132SB-2-E2	2	7.50	24.6/14.2	0.89	0.89	0.90	90.5	90.5	89.0	3480	20.6	615	174	206
MMG160MA-2-E2	2	11.0	35.5/20.5	0.92	0.92	0.92	87.5	88.0	88.0	3520	30.0	525	178	182
MMG160MB-2-E2	2	15.0	48.5/28.0	0.91	0.92	0.92	89.5	90.0	89.5	3520	40.5	525	198	186
MMG160L-2-E2	2	18.5	58.5/33.8	0.91	0.92	0.92	90.0	90.5	90.5	3530	50.0	580	210	206
MMG180M-2-E2	2	22.0	70.0/40.4	0.91	0.91	0.92	90.5	90.5	90.5	3540	59.5	600	186	198
MMG200LA-2-E2	2	30.0	96.0/55.4	0.89	0.90	0.90	90.5	91.0	91.0	3550	80.5	560	170	196
MMG200LB-2-E2	2	37.0	116/67.0	0.91	0.91	0.91	91.5	91.0	91.5	3550	99.5	615	192	214
MMG225M-2-E2	2	45.0	142/82.0	0.87	0.90	0.91	90.5	90.5	91.5	3570	120	605	182	208
MMG250M-2-E2	2	55.0	174/101	0.91	0.91	0.91	91.5	92.0	92.5	3580	147	475	136	174
MMG280S-2-E2	2	75.0	254/147	0.90	0.90	0.89	93.5	94.0	94.0	3580	200	515	168	208
MMG280M-2-E2	2	90.0	275/159	0.90	0.90	0.90	94.5	95.0	95.0	3580	240	555	190	218
MMG315S-2-E	-	110	324/187	0.88	0.92	0.93	92.1	93.4	94.0	3590	293	640	140	170
MMG315M-2-E	-	132	410/237	0.92	0.91	0.90	93.3	94.0	94.5	3570	355	460	144	188
MMG315LA-2-E	-	160	490/283	0.92	0.92	0.90	93.9	94.5	95.0	3570	430	465	148	192
MMG315LB-2-E	-	200	625/361	0.92	0.91	0.90	92.5	93.5	93.5	3560	430	445	146	184
MMG355M-2-E	-	250	750/433	0.92	0.93	0.92	93.4	94.0	94.5	3570	535	540	142	214
MMG355L-2-E	-	315	940/543	0.92	0.93	0.92	93.2	94.5	95.0	3570	670	555	154	216

50 Hz data shown as 230 V Δ/ 400 V Y. 60 Hz data shown as 220 V Δ/380 V Y, 230 V Δ/400 V Y and 277 V Δ/480 V Y.



MMG Model E 2-pole · low voltage · 60 Hz

MMG-E														
Low voltage · 2-pole motors 60 Hz 230 V Δ/400 V Y														
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _s /I _N [%]	LRT M _s /M _N [%]	BT M _{BT} /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-2-E	-	0.37	1.46/0.845	0.71	0.80	0.87	66.0	67.0	70.0	3330	1.06	420	190	230
MMG071B-2-E	-	0.55	2.02/1.18	0.74	0.83	0.87	66.0	67.5	73.0	3340	1.58	470	220	240
MMG080A-2-E	-	0.75	2.85/1.64	0.80	0.85	0.86	74.0	74.0	75.0	3360	2.14	400	120	170
MMG080B-2-E2	2	1.10	4.05/2.35	0.82	0.84	0.86	73.0	75.0	76.0	3350	3.14	400	140	190
MMG090S-2-E2	2	1.50	5.45/3.15	0.73	0.82	0.87	77.5	79.5	78.5	3380	4.25	460	160	210
MMG090L-2-E2	2	2.20	7.75/4.50	0.73	0.82	0.87	80.0	82.0	81.0	3380	6.20	490	180	220
MMG100L-2-E2	2	3.00	9.85/5.70	0.78	0.87	0.91	81.5	83.0	82.5	3450	8.30	620	210	290
MMG112M-2-E2	2	4.00	13.0/7.50	0.79	0.87	0.91	84.0	85.0	84.0	3470	11.0	580	180	280
MMG132SA-2-E2	2	5.50	17.6/10.0	0.78	0.87	0.91	84.0	86.0	85.5	3480	15.0	550	150	250
MMG132SB-2-E2	2	7.50	23.4/13.6	0.82	0.90	0.92	87.0	88.0	87.0	3480	20.0	540	160	240
MMG160MA-2-E2	2	11.0	36.0/21.0	0.82	0.89	0.90	86.0	88.0	88.5	3520	30.0	510	190	240
MMG160MB-2-E2	2	15.0	50.0/29.0	0.83	0.86	0.87	88.5	90.0	89.5	3520	40.5	510	200	240
MMG160L-2-E2	2	18.5	60.5/35.0	0.83	0.89	0.89	89.5	90.5	90.0	3530	50.0	550	230	260
MMG180M-2-E2	2	22.0	67.5/39.0	0.86	0.90	0.90	88.0	89.5	90.5	3540	59.5	520	170	260
MMG200LA-2-E2	2	30.0	92.5/53.0	0.83	0.89	0.90	88.0	89.5	90.5	3550	80.5	540	170	260
MMG200LB-2-E2	2	37.0	114/66.0	0.82	0.89	0.90	90.5	91.5	92.0	3550	99.5	670	220	320
MMG225M-2-E2	2	45.0	132/76.5	0.83	0.89	0.92	91.0	92.5	92.5	3570	120	560	200	270
MMG250M-2-E2	2	55.0	160/93.0	0.84	0.90	0.92	91.0	92.5	93.0	3580	146	660	150	180
MMG280S-2-E2	2	75.0	218/126	0.85	0.90	0.92	92.0	93.5	93.5	3580	200	660	150	180
MMG280M-2-E2	2	90.0	255/146	0.86	0.91	0.93	91.0	93.5	94.0	3580	240	660	150	180
MMG315S-2-E	-	110	310/180	0.87	0.91	0.93	92.0	93.5	94.0	3590	290	640	130	170
MMG315M-2-E	-	132	375/216	0.87	0.91	0.93	92.0	94.0	94.5	3590	350	640	130	170
MMG315LA-2-E	-	160	455/262	0.88	0.91	0.93	92.0	94.0	94.5	3590	425	640	130	170
MMG315LB-2-E	-	200	565/325	0.88	0.91	0.93	92.5	94.0	95.0	3590	530	640	130	170
MMG355M-2-E	-	250	700/405	0.89	0.91	0.93	93.0	94.5	95.5	3590	665	640	120	160
MMG355L-2-E	-	315	885/510	0.90	0.91	0.93	93.5	95.0	95.5	3590	835	640	120	160
Low voltage · 2-pole motors 60 Hz 277 V Δ/480 V Y														
MMG071A-2-E	-	0.37	1.22/0.704	0.63	0.68	0.70	68.0	69.0	71.0	3330	1.06	700	300	330
MMG071B-2-E	-	0.55	1.90/1.10	0.66	0.72	0.76	77.0	77.5	78.5	3340	1.58	760	710	340
MMG080A-2-E	-	0.75	2.42/1.40	0.50	0.68	0.79	73.0	78.0	80.5	3360	2.14	740	315	255
MMG080B-2-E2	2	1.10	3.45/2.00	0.48	0.69	0.80	80.0	82.5	83.5	3350	3.15	795	295	255
MMG090S-2-E2	2	1.50	4.85/2.80	0.50	0.74	0.80	76.5	78.5	80.0	3380	4.25	910	365	295
MMG090L-2-E2	2	2.20	6.60/3.81	0.75	0.80	0.82	82.0	84.5	84.0	3380	6.20	893	325	290
MMG100L-2-E2	2	3.00	8.66/5.00	0.82	0.84	0.85	84.5	84.5	84.5	3450	8.30	930	325	300
MMG112M-2-E2	2	4.00	11.6/6.70	0.73	0.80	0.84	82.0	84.0	85.5	3470	11.0	970	345	325
MMG132SA-2-E2	2	5.50	14.8/8.54	0.83	0.86	0.86	88.0	88.5	88.5	3480	15.2	100	330	330
MMG132SB-2-E2	2	7.50	20.0/11.55	0.82	0.85	0.85	90.0	90.5	90.5	3480	20.0	99	310	330
MMG160MA-2-E2	2	11.0	29.0/16.8	0.86	0.88	0.89	87.5	88.5	88.5	3520	30.0	835	300	290
MMG160MB-2-E2	2	15.0	39.0/22.5	0.86	0.88	0.89	89.5	90.0	90.5	3520	40.5	830	325	295
MMG160L-2-E2	2	18.5	47.5/27.4	0.83	0.85	0.89	89.0	89.5	91.0	3530	50.0	920	355	325
MMG180M-2-E2	2	22.0	57.0/32.9	0.86	0.88	0.88	91.0	91.5	91.5	3540	71.5	945	315	315
MMG200LA-2-E2	2	30.0	78.5/45.3	0.81	0.83	0.87	90.0	91.0	92.0	3550	80.5	905	295	310
MMG200LB-2-E2	2	37.0	94.5/54.6	0.84	0.86	0.88	91.0	92.0	92.5	3550	99.5	995	330	335
MMG225M-2-E2	2	45.0	116/67.0	0.84	0.87	0.88	90.0	91.0	91.5	3570	144	990	320	330
MMG250M-2-E2	2	55.0	138/79.7	0.86	0.88	0.89	91.5	92.5	93.0	3580	146	780	235	270
MMG280S-2-E2	2	75.0	188/109	0.84	0.85	0.88	93.5	94.0	94.5	3580	240	825	275	325
MMG280M-2-E2	2	90.0	224/129	0.86	0.88	0.88	94.5	94.5	95.0	3580	285	890	315	340
MMG315S-2-E	-	110	256/148	0.87	0.88	0.89	92.1	93.4	94.0	3580	293	780	220	230
MMG315M-2-E	-	132	322/186	0.87	0.89	0.90	93.0	94.0	94.5	3580	350	740	230	300
MMG315LA-2-E	-	160	384/222	0.87	0.90	0.91	93.5	94.5	95.0	3580	425	745	235	305
MMG315LB-2-E	-	200	485/280	0.87	0.90	0.92	92.0	93.5	94.0	3580	425	725	235	290
MMG355M-2-E	-	250	605/349	0.86	0.88	0.90	93.0	94.0	94.5	3580	535	850	228	345
MMG355L-2-E	-	315	770/445	0.86	0.88	0.90	92.5	94.0	94.5	3580	665	860	246	345

50 Hz data shown as 230 V Δ/ 400 V Y. 60 Hz data shown as 220 V Δ/380 V Y, 230 V Δ/400 V Y and 277 V Δ/480 V Y.



Electrical data

MMG Model E 2-pole · high voltage · 50/60 Hz

MMG-E		High voltage · 2-pole motors 50 Hz 400 V Δ/690 V Y												
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _s /I _N [%]	LRT M _s /M _N [%]	BT M _{BT} /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-2-E	-	0.37	1.00/0.58	0.74	0.75	0.77	72.5	71.5	71.5	2800	1.28	510	245	290
MMG071B-2-E	-	0.55	1.30/0.75	0.73	0.73	0.82	73.0	79.5	73.5	2820	1.88	580	330	330
MMG080A-2-E	-	0.75	1.80/1.04	0.74	0.79	0.82	71.5	74.0	76.0	2840	2.55	605	248	280
MMG080B-2-E2	2	1.10	2.50/1.44	0.69	0.77	0.85	74.0	75.0	76.0	2840	3.75	605	224	260
MMG090S-2-E2	2	1.50	3.25/1.88	0.75	0.80	0.83	77.0	79.0	79.5	2850	5.05	610	235	275
MMG090L-2-E2	2	2.20	4.70/2.70	0.77	0.81	0.84	69.5	82.0	81.0	2850	7.40	670	255	280
MMG100L-2-E2	2	3.00	5.80/3.35	0.75	0.79	0.86	80.5	86.0	86.5	2880	9.95	780	270	315
MMG112M-2-E2	2	4.00	7.60/4.40	0.83	0.87	0.89	85.0	85.5	85.5	2890	13.2	745	205	290
MMG132SA-2-E2	2	5.50	10.0/5.78	0.81	0.85	0.88	87.0	88.5	88.5	2910	18.2	725	220	300
MMG132SB-2-E2	2	7.50	14.8/8.55	0.83	0.87	0.88	84.0	89.5	89.0	2900	24.8	645	214	285
MMG160MA-2-E2	2	11.0	20.2/11.6	0.84	0.87	0.88	86.0	88.0	88.5	2930	36.0	560	200	250
MMG160MB-2-E2	2	15.0	26.5/15.2	0.84	0.87	0.89	91.0	91.5	91.0	2940	49.0	580	206	265
MMG160L-2-E2	2	18.5	32.5/18.8	0.84	0.88	0.90	90.0	91.0	92.0	2940	60.0	655	245	285
MMG180M-2-E2	2	22.0	39.5/22.8	0.84	0.87	0.89	87.5	89.5	90.5	2950	71.5	740	255	305
MMG200LA-2-E2	2	30.0	57.5/33.0	0.83	0.86	0.89	88.5	90.5	91.5	2960	97.0	700	230	305
MMG200LB-2-E2	2	37.0	65.0/37.5	0.84	0.87	0.89	91.5	91.5	92.0	2960	120	755	255	330
MMG225M-2-E2	2	45.0	78.0/45.0	0.85	0.88	0.89	91.0	92.5	93.5	2980	144	740	234	290
MMG250M-2-E2	2	55.0	96.5/55.5	0.82	0.88	0.90	91.0	92.5	93.0	2960	176	790	200	230
MMG280S-2-E2	2	75.0	130/75.0	0.83	0.88	0.89	93.0	94.0	94.0	2970	240	660	228	315
MMG280M-2-E2	2	90.0	154/89.0	0.84	0.89	0.90	95.0	93.5	95.0	2980	288	720	260	330
MMG315S-2-E	-	110	188/108	0.85	0.89	0.90	92.0	94.0	94.0	2980	350	720	204	300
MMG315M-2-E	-	132	222/128	0.88	0.90	0.90	94.5	95.0	95.0	2980	420	750	180	220
MMG315LA-2-E	-	160	270/156	0.88	0.90	0.91	94.5	95.4	95.7	2980	510	595	194	295
MMG315LB-2-E	-	200	330/190	0.87	0.91	0.92	94.0	94.5	95.0	2980	640	580	194	285
MMG355M-2-E	-	250	435/250	0.89	0.91	0.92	93.0	95.0	95.5	2980	795	620	170	300
MMG355L-2-E	-	315	520/300	0.85	0.89	0.91	93.5	94.5	95.5	2980	1000	695	204	234
		High voltage · 2-pole motors 60 Hz 380 V Δ/660 V Y												
MMG071A-2-E	-	0.37	0.88/0.508	0.72	0.82	0.88	67.0	67.4	70.5	3330	1.06	400	180	220
MMG071B-2-E	-	0.55	1.20/0.693	0.84	0.87	0.89	79.5	78.5	77.0	3340	1.88	515	242	208
MMG080A-2-E	-	0.75	1.70/0.982	0.83	0.86	0.87	83.5	81.5	79.0	3360	2.55	465	162	172
MMG080B-2-E2	2	1.10	2.40/1.39	0.82	0.86	0.87	84.5	82.5	79.5	3350	3.75	475	146	156
MMG090S-2-E2	2	1.50	3.30/1.91	0.80	0.84	0.87	84.5	80.0	78.5	3380	5.05	565	186	188
MMG090L-2-E2	2	2.20	4.70/2.71	0.84	0.86	0.88	76.0	77.0	80.0	3380	7.40	530	190	182
MMG100L-2-E2	2	3.00	6.20/3.58	0.90	0.90	0.91	82.5	82.5	81.5	3450	9.95	565	178	192
MMG112M-2-E2	2	4.00	7.80/4.50	0.88	0.90	0.91	85.5	85.5	85.0	3470	11.0	635	194	200
MMG132SA-2-E2	2	5.50	10.6/6.12	0.89	0.90	0.91	88.0	88.0	87.5	3480	18.2	630	188	210
MMG132SB-2-E2	2	7.50	14.2/8.20	0.89	0.89	0.90	90.5	90.5	89.0	3480	24.8	615	174	206
MMG160MA-2-E2	2	11.0	20.6/11.9	0.92	0.92	0.92	87.5	88.0	88.0	3520	30.0	525	178	182
MMG160MB-2-E2	2	15.0	28.0/16.2	0.91	0.92	0.92	89.5	90.0	89.6	3520	49.0	525	198	186
MMG160L-2-E2	2	18.5	34.0/19.6	0.91	0.92	0.92	90.0	90.5	90.5	3530	60.0	580	210	204
MMG180M-2-E2	2	22.0	40.5/23.4	0.91	0.91	0.92	90.5	90.5	90.5	3540	24.5	600	186	198
MMG200LA-2-E2	2	30.0	55.5/32.1	0.89	0.90	0.90	90.5	91.0	91.0	3550	80.5	560	170	196
MMG200LB-2-E2	2	37.0	67.5/39.0	0.91	0.91	0.91	91.5	91.0	91.5	3550	120	615	192	214
MMG225M-2-E2	2	45.0	82.5/47.6	0.87	0.90	0.91	90.5	90.5	91.5	3570	144	605	182	208
MMG250M-2-E2	2	55.0	101/58.3	0.91	0.91	0.91	91.5	92.0	92.5	3580	146	475	136	174
MMG280S-2-E2	2	75.0	136/78.5	0.90	0.90	0.89	93.5	94.0	94.0	3580	200	515	168	208
MMG280M-2-E2	2	90.0	160/92.4	0.90	0.90	0.90	94.5	95.0	95.0	3580	240	555	190	218
MMG315S-2-E	-	110	185/107	0.88	0.92	0.93	92.1	93.4	94.0	3590	293	640	140	170
MMG315M-2-E	-	132	236/136	0.92	0.91	0.90	93.5	94.0	94.5	3570	355	460	144	188
MMG315LA-2-E	-	160	280/162	0.92	0.92	0.90	94.0	94.5	95.0	3570	430	465	148	192
MMG315LB-2-E	-	200	360/208	0.92	0.91	0.90	92.5	93.5	93.5	3560	430	445	146	184
MMG355M-2-E	-	250	435/251	0.92	0.93	0.92	93.5	94.0	94.5	3570	535	540	142	214
MMG355L-2-E	-	315	545/315	0.92	0.93	0.92	93.0	94.5	95.0	3570	670	555	154	216

50 Hz data shown as 400 V Δ/ 690 V Y. 60 Hz data shown as 380 V Δ/ 660 V Y, 400 V Δ/ 690 V Y and 480 V Δ/ 690 V Y.



MMG Model E 2-pole · high voltage · 60 Hz

MMG-E														
High voltage · 2-pole motors 60 Hz 400 V Δ/690 V Y														
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _s /I _N [%]	LRT M _s /M _N [%]	BT M _{BT} /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-2-E	-	0.37	0.845/0.485	0.71	0.80	0.87	66.0	67.0	70.0	3330	1.06	420	190	230
MMG071B-2-E	-	0.55	1.18/0.675	0.74	0.83	0.87	66.0	67.5	73.0	3340	1.58	470	220	240
MMG080A-2-E	-	0.75	1.64/0.95	0.80	0.85	0.86	74.0	74.0	75.0	3360	2.14	400	120	170
MMG080B-2-E2	2	1.10	2.35/1.36	0.82	0.84	0.86	73.0	75.0	76.0	3350	3.14	400	140	190
MMG090S-2-E2	2	1.50	3.15/1.82	0.73	0.82	0.87	77.5	79.5	78.5	3380	4.25	460	160	210
MMG090L-2-E2	2	2.20	4.50/2.60	0.73	0.82	0.87	80.0	82.0	81.0	3380	6.20	490	180	220
MMG100L-2-E2	2	3.00	5.95/3.50	0.78	0.87	0.91	81.5	83.0	82.5	3450	8.30	620	210	290
MMG112M-2-E2	2	4.00	7.70/4.45	0.79	0.87	0.91	84.0	85.0	84.0	3470	11.0	580	180	280
MMG132SA-2-E2	2	5.50	10.5/6.05	0.78	0.87	0.91	84.0	86.0	85.5	3480	15.2	550	150	250
MMG132SB-2-E2	2	7.50	14.2/8.00	0.82	0.90	0.92	87.0	88.0	87.0	3480	20.0	540	160	240
MMG160MA-2-E2	2	11.0	20.4/11.8	0.82	0.89	0.92	86.0	88.0	88.5	3510	30.0	510	190	240
MMG160MB-2-E2	2	15.0	27.5/15.8	0.83	0.90	0.93	88.5	90.0	89.5	3520	40.5	510	200	240
MMG160L-2-E2	2	18.5	33.5/19.4	0.83	0.89	0.93	89.5	90.5	90.0	3520	50.0	550	230	260
MMG180M-2-E2	2	22.0	40.0/23.0	0.86	0.90	0.92	88.0	89.5	90.5	3530	59.5	520	170	260
MMG200LA-2-E2	2	30.0	56.0/32.0	0.83	0.89	0.91	88.0	89.5	90.5	3550	80.5	540	170	260
MMG200LB-2-E2	2	37.0	67.0/38.5	0.82	0.89	0.91	90.5	91.5	92.0	3540	99.5	670	220	320
MMG225M-2-E2	2	45.0	79.5/46.0	0.83	0.89	0.92	91.0	92.5	92.5	3570	120	560	200	270
MMG250M-2-E2	2	55.0	100/58.0	0.84	0.89	0.90	91.0	92.5	93.0	3570	147	660	150	180
MMG280S-2-E2	2	75.0	134/77.5	0.85	0.89	0.90	92.0	93.5	93.5	3580	200	660	150	180
MMG280M-2-E2	2	90.0	160/92.5	0.86	0.90	0.91	91.0	93.5	94.0	3580	240	660	150	180
MMG315S-2-E	-	110	180/104	0.87	0.91	0.93	92.0	93.5	94.0	3590	295	640	130	170
MMG315M-2-E	-	132	216/126	0.87	0.91	0.93	92.0	94.0	94.5	3590	350	640	130	170
MMG315LA-2-E	-	160	260/150	0.88	0.91	0.93	92.0	94.0	94.5	3590	425	640	130	170
MMG315LB-2-E	-	200	325/188	0.88	0.91	0.93	92.5	94.0	95.0	3590	530	640	130	170
MMG355M-2-E	-	250	405/235	0.89	0.91	0.93	93.0	94.5	95.5	3590	665	640	120	160
MMG355L-2-E	-	315	510/295	0.90	0.91	0.93	93.5	95.0	95.5	3590	835	640	120	160
High voltage · 2-pole motors 60 Hz 480 V Δ/690 V Y														
MMG071A-2-E	-	0.37	0.704/0.406	0.63	0.68	0.70	68.0	69.0	71.0	3330	1.06	700	300	330
MMG071B-2-E	-	0.55	1.10/0.635	0.66	0.72	0.76	77.0	77.5	78.5	3340	1.58	760	710	340
MMG080A-2-E	-	0.75	1.40/0.808	0.50	0.68	0.79	73.0	78.0	80.5	3360	2.14	740	315	255
MMG080B-2-E2	2	1.10	2.00/1.16	0.48	0.69	0.80	80.0	82.5	83.5	3350	3.15	795	295	255
MMG090S-2-E2	2	1.50	2.80/1.62	0.50	0.74	0.80	76.5	78.5	80.0	3380	4.25	910	365	295
MMG090L-2-E2	2	2.20	3.80/2.20	0.75	0.80	0.82	82.0	84.5	84.0	3380	6.20	895	325	290
MMG100L-2-E2	2	3.00	5.00/2.89	0.82	0.84	0.85	84.5	84.5	84.5	3450	8.30	930	326	300
MMG112M-2-E2	2	4.00	6.70/3.87	0.73	0.80	0.84	82.0	84.0	85.5	3470	11.0	970	345	325
MMG132SA-2-E2	2	5.50	8.50/4.91	0.83	0.86	0.86	88.0	88.5	88.5	3480	15.2	1000	330	330
MMG132SB-2-E2	2	7.50	11.6/6.70	0.82	0.85	0.85	90.0	90.5	90.5	3480	20.0	990	310	330
MMG160MA-2-E2	2	11.0	16.8/9.70	0.86	0.88	0.89	87.5	88.5	88.5	3520	30.0	835	300	290
MMG160MB-2-E2	2	15.0	22.6/13.1	0.86	0.88	0.89	89.5	90.0	90.5	3520	40.5	830	325	295
MMG160L-2-E2	2	18.5	27.5/15.9	0.83	0.85	0.89	89.0	89.5	91.0	3530	50.0	920	355	325
MMG180M-2-E2	2	22.0	33.0/19.1	0.86	0.88	0.88	91.0	91.5	91.5	3540	59.5	945	315	315
MMG200LA-2-E2	2	30.0	45.5/26.3	0.81	0.83	0.87	90.0	91.0	92.0	3550	80.5	905	295	310
MMG200LB-2-E2	2	37.0	54.5/31.5	0.84	0.86	0.88	91.0	92.0	92.5	3550	99.5	995	330	335
MMG225M-2-E2	2	45.0	66.5/38.4	0.84	0.87	0.88	90.0	91.0	91.5	3570	120	990	320	330
MMG250M-2-E2	2	55.0	79.5/45.9	0.86	0.88	0.89	91.4	92.5	93.0	3580	146	780	230	270
MMG280S-2-E2	2	75.0	109/62.9	0.84	0.85	0.88	93.5	94.0	94.5	3580	200	825	275	325
MMG280M-2-E2	2	90.0	130/75.1	0.86	0.88	0.88	94.5	94.5	95.0	3580	240	890	315	340
MMG315S-2-E	-	110	148/85.5	0.87	0.88	0.89	92.1	93.4	94.0	3580	293	780	220	230
MMG315M-2-E	-	132	186/108	0.87	0.89	0.90	93.0	94.0	94.5	3580	350	740	230	300
MMG315LA-2-E	-	160	222/128	0.87	0.90	0.91	93.5	94.5	95.0	3580	425	745	235	305
MMG315LB-2-E	-	200	280/162	0.87	0.90	0.92	92.0	93.5	94.0	3580	425	725	234	290
MMG355M-2-E	-	250	350/202	0.86	0.88	0.90	93.0	94.0	94.5	3580	535	850	228	345
MMG355L-2-E	-	315	445/257	0.86	0.88	0.90	92.5	94.0	94.5	3580	665	860	246	345

50 Hz data shown as 400 V Δ/ 690 V Y. 60 Hz data shown as 380 V Δ/ 660 V Y, 400 V Δ/ 690 V Y and 480 V Δ/ 690 V Y.

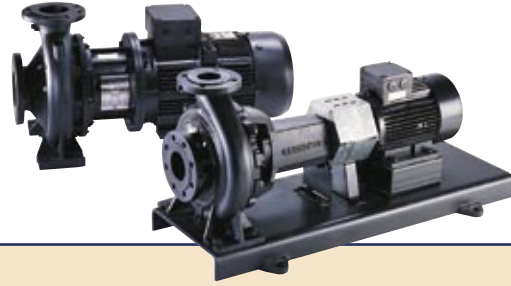


Electrical data

MMG Model E 4-pole · low voltage · 50/60 Hz

MMG-E		Low voltage · 4-pole motors 50 Hz 230 V Δ/400 V Y												
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _s /I _N [%]	LRT M _s /M _N [%]	BT M _{BT} /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-4-E	-	0.25	1.28/0.740	0.52	0.65	0.74	61.5	65.5	65.0	1340	1.78	440	250	270
MMG071B-4-E		0.37	1.74/1.00	0.63	0.72	0.75	62.5	67.5	67.0	1340	2.65	460	230	260
MMG080A-4-E	-	0.55	2.60/1.50	0.52	0.66	0.75	68.5	71.0	71.0	1390	3.80	550	240	240
MMG080B-4-E	-	0.75	3.45/2.00	0.54	0.67	0.76	71.0	73.5	73.0	1390	5.15	630	230	240
MMG090S-4-E2	2	1.10	4.35/2.50	0.56	0.69	0.77	74.0	75.5	76.0	1390	7.50	630	230	240
MMG090L-4-E2	2	1.50	5.90/3.40	0.60	0.72	0.79	78.0	79.0	78.5	1400	10.2	630	230	240
MMG100L-4-E2	2	2.20	7.95/4.60	0.62	0.75	0.81	79.0	79.5	81.0	1420	14.8	740	230	240
MMG100L-4-E2	2	3.00	11.6/6.70	0.64	0.76	0.82	68.5	80.0	82.5	1440	20.2	785	325	355
MMG112M-4-E2	2	4.00	14.2/8.20	0.65	0.77	0.82	83.5	85.0	84.0	1440	26.5	740	275	280
MMG132S-4-E2	2	5.50	20.0/11.6	0.71	0.77	0.83	87.5	88.5	88.5	1460	36.0	725	250	330
MMG132M-4-E2	2	7.50	24.2/14.0	0.76	0.81	0.86	89.0	89.0	89.0	1450	49.0	785	245	305
MMG160M-4-E2	2	11.0	36.5/21.2	0.78	0.82	0.90	90.0	90.0	88.5	1460	72.0	740	275	280
MMG160L-4-E2	2	15.0	46.5/27.0	0.78	0.82	0.85	88.5	89.5	89.5	1460	98.0	780	220	240
MMG180M-4-E2	2	18.5	58.0/33.5	0.82	0.86	0.89	91.5	91.5	91.5	1460	120	745	246	305
MMG180L-4-E2	2	22.0	66.5/38.5	0.83	0.87	0.89	91.5	92.0	92.0	1460	144	720	234	290
MMG200L-4-E2	2	30.0	91.0/52.5	0.80	0.84	0.88	91.5	91.5	91.5	1470	194	750	220	240
MMG225S-4-E2	2	37.0	114/65.5	0.88	0.88	0.89	92.0	91.5	92.0	1480	240	685	206	280
MMG225M-4-E2	2	45.0	136/79.5	0.88	0.88	0.89	92.0	92.5	92.5	1480	240	685	206	280
MMG250M-4-E2	2	55.0	165/95.5	0.76	0.84	0.89	92.0	93.0	93.0	1490	290	750	220	240
MMG280S-4-E2	2	75.0	222/128	0.76	0.84	0.89	92.0	93.0	93.6	1490	355	750	220	240
MMG280M-4-E2	2	90.0	260/150	0.87	0.89	0.91	94.0	94.5	93.9	1490	480	740	265	320
MMG315S-4-E	-	110	330/192	0.76	0.84	0.88	92.5	93.5	94.0	1480	575	750	220	240
MMG315M-4-E	-	132	390/226	0.76	0.84	0.88	93.0	94.0	94.5	1490	705	730	210	230
MMG315LA-4-E	-	160	470/270	0.87	0.88	0.89	92.0	94.0	95.0	1490	845	665	228	335
MMG315LB-4-E	-	20	590/340	0.84	0.87	0.885	95.0	95.5	95.5	1490	1280	550	190	280
MMG355M-4-E	-	250	710/410	0.90	0.91	0.91	95.0	95.5	95.5	1490	1600	635	178	290
MMG355L-4-E	-	315	910/525	0.85	0.88	0.89	95.5	96.0	96.0	1490	2020	680	202	310
		Low voltage · 4-pole motors 60 Hz 220 V Δ/380 V Y												
MMG071A-4-E	-	0.25	1.21/0.70	0.73	0.77	0.81	70.0	69.0	68.0	1590	1.78	365	180	170
MMG071B-4-E		0.37	1.74/1.00	0.80	0.82	0.85	73.5	72.0	69.5	1560	2.65	365	184	166
MMG080A-4-E	-	0.55	2.24/1.29	0.76	0.82	0.82	78.5	78.5	77.0	1670	3.15	475	184	188
MMG080B-4-E	-	0.75	3.12/1.80	0.72	0.78	0.84	77.0	78.0	76.5	1660	2.55	435	182	180
MMG090S-4-E2	2	1.10	4.50/2.60	0.80	0.82	0.86	80.0	80.0	77.5	1650	6.25	440	198	176
MMG090L-4-E2	2	1.50	5.88/3.40	0.80	0.83	0.85	81.5	81.0	79.0	1660	8.55	455	192	182
MMG100L-4-E2	2	2.20	8.15/4.71	0.83	0.85	0.88	83.5	83.5	81.5	1700	12.4	525	162	192
MMG100L-4-E2	2	3.00	11.0/6.35	0.80	0.83	0.86	85.0	84.5	84.0	1710	16.8	655	216	230
MMG112M-4-E2	2	4.00	13.8/7.97	0.84	0.86	0.88	87.5	86.5	85.5	1710	22.4	610	202	200
MMG132S-4-E2	2	5.50	18.4/10.6	0.87	0.88	0.89	88.5	88.0	87.0	1730	36.0	575	168	188
MMG132M-4-E2	2	7.50	25.5/14.7	0.87	0.88	0.88	88.5	88.5	87.5	1730	49.0	555	168	186
MMG160M-4-E2	2	11.0	37.5/21.7	0.86	0.86	0.87	90.5	90.0	89.0	1730	72.0	565	184	184
MMG160L-4-E2	2	15.0	48.5/28.0	0.88	0.89	0.90	91.5	91.5	90.0	1750	98.0	665	204	204
MMG180M-4-E2	2	18.5	58.5/33.8	0.89	0.90	0.92	90.0	90.5	91.5	1750	100	600	178	196
MMG180L-4-E2	2	22.0	70.0/40.4	0.90	0.91	0.91	92.0	92.0	91.5	1760	120	640	192	204
MMG200L-4-E2	2	30.0	95.5/55.1	0.89	0.89	0.90	93.0	93.0	92.0	1760	194	575	220	208
MMG225S-4-E2	2	37.0	116/67.0	0.91	0.91	0.90	93.0	93.0	92.5	1780	200	575	156	184
MMG225M-4-E2	2	45.0	141/81.4	0.89	0.90	0.90	93.0	93.5	93.0	1780	242	620	174	198
MMG250M-4-E2	2	55.0	100/57.7	0.90	0.91	0.90	93.0	93.0	93.0	1770	290	575	176	198
MMG280S-4-E2	2	75.0	235/136	0.92	0.91	0.90	94.0	94.0	93.5	1770	240	565	188	200
MMG280M-4-E2	2	90.0	285/165	0.91	0.91	0.89	94.0	94.0	93.5	1770	575	520	166	188
MMG315S-4-E	-	110	345/200	0.89	0.89	0.89	93.0	93.5	94.0	1780	590	500	168	202
MMG315M-4-E	-	132	415/240	0.83	0.88	0.88	94.0	94.5	95.0	1780	710	650	180	220
MMG315LA-4-E	-	160	507/293	0.90	0.90	0.89	94.5	95.0	94.5	1780	860	455	156	184
MMG315LB-4-E	-	200	625/361	0.89	0.90	0.88	95.0	95.5	95.0	1780	1080	440	144	182
MMG355M-4-E	-	250	760/439	0.92	0.92	0.91	93.0	94.0	94.5	1780	1340	495	134	188
MMG355L-4-E	-	315	950/549	0.91	0.92	0.91	95.5	95.5	95.5	1780	1690	540	152	204

50 Hz data shown as 230 V Δ/ 400 V Y. 60 Hz data shown as 220 V Δ/380 V Y, 230 V Δ/400 V Y and 277 V Δ/480 V Y.



MMG Model E 4-pole · low voltage · 60 Hz

MMG-E														
Low voltage · 4-pole motors 60 Hz 230 V Δ/400 V Y														
Short type designation	Efficiency class	Shaft power P ₂	Full load current I _N	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M _N	LRC I _s /I _N	LRT M _s /M _N	BT M ₉₇ /M _N
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min ⁻¹]	[Nm]	[%]	[%]	[%]
MMG071A-4-E	-	0.25	1.20/0.695	0.58	0.70	0.80	55.5	61.5	65.0	1610	1.48	440	160	180
MMG071B-4-E	-	0.37	1.72/0.995	0.57	0.71	0.80	60.0	64.0	67.0	1610	2.20	440	160	180
MMG080A-4-E	-	0.55	2.40/1.38	0.57	0.71	0.80	61.5	68.0	71.0	1670	3.15	440	180	210
MMG080B-4-E	-	0.75	3.25/1.88	0.59	0.72	0.78	66.0	70.5	73.0	1670	4.30	520	170	210
MMG090S-4-E2	2	1.10	4.50/2.60	0.61	0.74	0.80	69.0	72.5	76.0	1680	6.25	520	170	210
MMG090L-4-E2	2	1.50	5.80/3.35	0.65	0.77	0.82	74.0	76.0	78.5	1680	8.55	520	170	230
MMG100L-4-E2	2	2.20	8.15/4.70	0.66	0.79	0.84	75.0	77.5	81.0	1700	12.4	620	190	230
MMG100L-4-E2	2	3.00	10.6/6.15	0.68	0.80	0.85	79.0	80.0	82.5	1700	16.8	620	180	230
MMG112M-4-E2	2	4.00	13.8/7.95	0.69	0.81	0.85	80.5	82.0	84.0	1730	22.2	620	210	230
MMG132S-4-E2	2	5.50	17.6/10.2	0.73	0.80	0.89	85.5	86.5	85.5	1740	30.0	610	190	260
MMG132M-4-E2	2	7.50	26.0/15.0	0.79	0.85	0.86	87.0	87.0	87.0	1730	41.0	640	180	250
MMG160M-4-E2	2	11.0	35.5/20.6	0.81	0.85	0.86	88.5	88.5	88.5	1740	60.0	630	210	230
MMG160L-4-E2	2	15.0	47.5/27.5	0.81	0.85	0.88	87.5	88.5	89.5	1730	81.5	640	200	190
MMG180M-4-E2	2	18.5	59.0/28.0	0.85	0.88	0.88	90.5	90.5	90.0	1750	100	620	210	250
MMG180L-4-E2	2	22.0	69.5/32.0	0.86	0.90	0.90	91.5	91.0	90.5	1750	120	640	220	260
MMG200L-4-E2	2	30.0	92.0/53.0	0.83	0.87	0.89	90.5	91.5	91.5	1760	162	620	170	190
MMG225S-4-E2	2	37.0	112/65.0	0.90	0.90	0.90	92.0	92.0	92.0	1760	200	570	140	230
MMG225M-4-E2	2	45.0	136/78.0	0.78	0.86	0.90	91.5	92.5	92.5	1760	242	620	170	190
MMG250M-4-E2	2	55.0	166/95.5	0.78	0.86	0.90	92.5	92.5	93.0	1770	295	620	170	190
MMG280S-4-E2	2	75.0	222/128	0.89	0.91	0.90	92.5	93.5	93.5	1780	400	610	210	190
MMG280M-4-E2	2	90.0	265/152	0.78	0.86	0.90	91.5	92.5	94.0	1790	480	620	170	270
MMG315S-4-E	-	110	320/186	0.78	0.86	0.91	92.0	93.0	94.5	1790	585	610	160	190
MMG315M-4-E	-	132	380/220	0.89	0.90	0.91	91.0	93.5	95.0	1790	705	550	180	180
MMG315LA-4-E	-	160	460/265	0.84	0.90	0.92	93.0	93.5	95.0	1790	850	620	160	280
MMG315LB-4-E	-	200	570/330	0.85	0.90	0.92	93.0	94.0	95.0	1790	1060	620	160	180
MMG355M-4-E	-	250	700/405	0.88	0.93	0.93	94.0	94.5	95.5	1790	1330	620	160	180
MMG355L-4-E	-	315	885/510	0.89	0.91	0.93	93.5	94.5	95.5	1790	1680	620	160	180
Low voltage · 4-pole motors 60 Hz 277 V Δ/480 V Y														
MMG071A-4-E	-	0.25	1.04/0.60	0.50	0.58	0.66	64.0	67.0	69.0	1690	1.78	510	330	285
MMG071B-4-E	-	0.37	1.56/0.901	0.55	0.62	0.69	71.0	73.0	74.0	1680	2.65	535	345	280
MMG080A-4-E	-	0.55	2.40/1.39	0.46	0.57	0.67	64.0	70.0	73.5	1730	3.15	595	340	305
MMG080B-4-E	-	0.75	2.95/1.70	0.59	0.67	0.69	74.0	76.0	76.0	1720	2.55	625	345	295
MMG090S-4-E2	2	1.10	3.80/2.19	0.59	0.65	0.75	78.0	79.5	80.5	1720	6.25	700	370	280
MMG090L-4-E2	2	1.50	5.20/3.00	0.59	0.70	0.73	80.0	81.5	81.5	1730	8.55	695	365	300
MMG100L-4-E2	2	2.20	6.95/4.01	0.59	0.68	0.79	78.0	81.0	83.0	1740	12.4	825	285	305
MMG100L-4-E2	2	3.00	10.4/6.00	0.46	0.63	0.72	76.5	82.5	84.0	1750	20.2	920	395	375
MMG112M-4-E2	2	4.00	12.2/7.04	0.69	0.75	0.80	85.0	86.0	86.5	1750	21.8	945	370	315
MMG132S-4-E2	2	5.50	15.6/9.00	0.78	0.82	0.83	88.0	88.0	88.5	1760	36.0	930	320	305
MMG132M-4-E2	2	7.50	21.2/12.24	0.80	0.82	0.83	90.0	90.0	90.0	1760	41.0	930	320	300
MMG160M-4-E2	2	11.0	30.5/17.6	0.74	0.78	0.83	89.5	90.0	90.5	1760	72.0	940	345	280
MMG160L-4-E2	2	15.0	40.0/23.1	0.82	0.84	0.86	91.0	91.0	91.0	1770	81.5	108	385	330
MMG180M-4-E2	2	18.5	49.5/28.6	0.82	0.85	0.86	90.0	90.5	91.0	1770	120	945	315	315
MMG180L-4-E2	2	22.0	57.0/32.9	0.86	0.87	0.87	92.0	92.0	92.0	1780	144	104	345	325
MMG200L-4-E2	2	30.0	77.0/44.5	0.81	0.83	0.88	93.0	93.0	93.5	1780	194	920	370	325
MMG225S-4-E2	2	37.0	93.5/54.0	0.86	0.88	0.88	93.0	93.5	93.5	1780	200	945	280	290
MMG225M-4-E2	2	45.0	116/67.0	0.81	0.84	0.86	92.5	93.0	93.5	1780	242	102	315	315
MMG250M-4-E2	2	55.0	138/79.7	0.87	0.88	0.88	93.0	94.0	93.5	1780	290	955	310	310
MMG280S-4-E2	2	75.0	184/106	0.87	0.88	0.90	94.0	94.5	94.5	1780	200	945	325	310
MMG280M-4-E2	2	90.0	218/126	0.91	0.91	0.91	94.5	94.5	94.5	1790	575	885	285	290
MMG315S-4-E	-	110	280/162	0.81	0.84	0.87	93.0	93.5	94.0	1790	585	780	270	320
MMG315M-4-E	-	132	330/191	0.76	0.84	0.88	92.0	93.5	94.5	1790	705	850	290	350
MMG315LA-4-E	-	160	395/228	0.84	0.87	0.87	94.5	95.0	95.0	1790	855	740	250	305
MMG315LB-4-E	-	200	495/286	0.79	0.95	0.88	93.5	95.0	95.5	1790	1060	700	230	290
MMG355M-4-E	-	250	600/347	0.89	0.90	0.91	94.0	95.0	95.0	1790	1340	805	218	300
MMG355L-4-E	-	315	762/440	0.82	0.88	0.89	94.5	95.0	95.5	1790	1680	855	250	320

50 Hz data shown as 230 V Δ/ 400 V Y. 60 Hz data shown as 220 V Δ/380 V Y, 230 V Δ/400 V Y and 277 V Δ/480 V Y.



Electrical data

MMG Model E 4-pole · high voltage · 50/60 Hz

MMG-E		High voltage · 4-pole motors 50 Hz 400 V Δ/690 V Y												
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _s /I _N [%]	LRT M _s /M _N [%]	BT M _{BT} /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-4-E	-	0.25	0.74/0.45	0.52	0.65	0.74	61.5	65.5	65.0	1340	1.78	440	250	270
MMG071B-4-E		0.37	1.00/0.55	0.63	0.72	0.75	62.5	67.5	67.0	1340	2.65	460	230	260
MMG080A-4-E	-	0.55	1.50/0.85	0.52	0.66	0.75	68.5	71.0	71.0	1390	3.80	550	240	240
MMG080B-4-E	-	0.75	2.00/1.16	0.54	0.67	0.76	71.0	73.5	73.0	1390	5.15	630	230	240
MMG090S-4-E2	2	1.10	2.50/1.46	0.56	0.69	0.77	74.0	75.5	76.0	1390	7.50	630	230	240
MMG090L-4-E2	2	1.50	3.40/1.96	0.60	0.72	0.79	78.0	79.0	78.5	1400	10.2	630	230	240
MMG100L-4-E2	2	2.20	4.60/2.65	0.62	0.75	0.81	79.0	79.5	80.0	1420	14.8	740	230	240
MMG100L-4-E2	2	3.00	6.30/3.65	0.64	0.76	0.82	82.0	83.0	82.5	1420	20.2	740	238	280
MMG112M-4-E2	2	4.00	8.20/4.75	0.65	0.77	0.82	83.5	85.0	84.0	1440	26.5	740	274	280
MMG132S-4-E2	2	5.50	11.6/6.70	0.71	0.77	0.83	87.5	88.5	88.5	1450	36.0	725	250	330
MMG132M-4-E2	2	7.50	14.4/8.30	0.76	0.81	0.84	89.0	89.0	89.0	1450	49.0	780	238	300
MMG160M-4-E2	2	11.0	22.6/13.0	0.78	0.82	0.84	90.0	90.0	90.0	1460	72.0	740	275	280
MMG160L-4-E2	2	15.0	28.5/16.4	0.78	0.82	0.85	88.5	89.0	89.5	1460	98.0	780	220	240
MMG180M-4-E2	2	18.5	33.5/19.4	0.83	0.86	0.86	91.5	91.5	91.0	1470	120	755	244	305
MMG180L-4-E2	2	22.0	39.0/22.6	0.83	0.87	0.86	91.5	91.5	91.5	1470	144	780	255	310
MMG200L-4-E2	2	30.0	53.5/31.0	0.80	0.84	0.88	91.5	91.5	91.5	1470	194	750	220	240
MMG225S-4-E2	2	37.0	71.0/41.0	0.88	0.88	0.89	92.0	92.5	92.0	1480	240	685	206	280
MMG225M-4-E2	2	45.0	78.0/45.0	0.76	0.84	0.89	92.0	93.0	92.5	1480	290	750	220	240
MMG250M-4-E2	2	55.0	95.0/55.0	0.76	0.84	0.89	92.0	93.0	93.0	1480	355	750	220	240
MMG280S-4-E2	2	75.0	128/74.0	0.87	0.89	0.87	94.0	94.5	94.5	1480	480	740	265	320
MMG280M-4-E2	2	90.0	150/86.5	0.76	0.84	0.88	92.5	93.5	94.0	1480	575	750	220	240
MMG315S-4-E	-	110	192/110	0.76	0.84	0.91	93.0	94.0	94.5	1490	705	730	210	230
MMG315M-4-E	-	132	226/130	0.87	0.88	0.89	92.0	94.0	95.0	1490	845	665	228	335
MMG315LA-4-E	-	160	270/156	0.87	0.88	0.89	92.0	94.0	95.0	1490	845	665	228	335
MMG315LB-4-E	-	200	340/196	0.84	0.87	0.89	95.0	95.5	95.5	1490	1280	550	190	280
MMG355M-4-E	-	250	410/236	0.90	0.91	0.91	95.0	95.5	95.5	1490	1600	635	178	290
MMG355L-4-E	-	315	525/300	0.85	0.88	0.89	95.5	96.0	96.0	1490	2012	680	202	310
		High voltage · 4-pole motors 60 Hz 380 V Δ/660 V Y												
MMG071A-4-E	-	0.25	0.70/0.404	0.73	0.77	0.81	70.0	69.0	68.0	1590	1.78	365	180	170
MMG071B-4-E		0.37	1.00/0.577	0.80	0.82	0.85	73.5	72.0	69.5	1560	2.65	365	184	166
MMG080A-4-E	-	0.55	1.30/0.75	0.76	0.82	0.82	78.5	78.5	77.0	1670	3.15	475	184	188
MMG080B-4-E	-	0.75	1.80/1.04	0.72	0.78	0.84	77.0	78.0	76.5	1660	2.55	435	182	180
MMG090S-4-E2	2	1.10	2.50/1.44	0.80	0.82	0.86	80.0	80.0	77.5	1650	6.25	440	198	176
MMG090L-4-E2	2	1.50	3.40/1.96	0.80	0.83	0.85	81.5	81.0	79.0	1660	8.55	455	192	182
MMG100L-4-E2	2	2.20	4.70/2.71	0.83	0.85	0.88	83.5	83.5	81.5	1700	12.4	525	162	192
MMG100L-4-E2	2	3.00	6.30/3.62	0.80	0.83	0.86	85.0	84.5	84.0	1710	16.8	655	216	230
MMG112M-4-E2	2	4.00	8.00/4.62	0.84	0.86	0.88	87.5	86.5	85.5	1710	22.4	610	202	200
MMG132S-4-E2	2	5.50	10.6/6.12	0.87	0.88	0.89	88.5	88.0	87.0	1730	36.0	575	168	188
MMG132M-4-E2	2	7.50	14.8/8.54	0.87	0.88	0.88	88.5	88.5	87.5	1730	49.0	555	168	186
MMG160M-4-E2	2	11.0	21.5/12.4	0.86	0.86	0.87	90.5	90.0	89.0	1730	72.0	565	184	184
MMG160L-4-E2	2	15.0	28.0/16.2	0.88	0.89	0.90	91.5	91.5	90.0	1750	98.0	665	204	204
MMG180M-4-E2	2	18.5	34.0/19.6	0.89	0.90	0.92	90.0	90.5	91.5	1750	100	600	178	196
MMG180L-4-E2	2	22.0	40.5/23.4	0.90	0.91	0.91	92.0	92.0	91.5	1760	120	640	192	204
MMG200L-4-E2	2	30.0	55.0/31.8	0.89	0.89	0.90	93.0	93.0	92.0	1760	194	575	218	208
MMG225S-4-E2	2	37.0	67.5/39.0	0.91	0.91	0.90	93.0	93.0	92.5	1780	200	575	156	184
MMG225M-4-E2	2	45.0	81.5/47.1	0.89	0.90	0.90	93.0	93.5	93.0	1780	242	620	174	198
MMG250M-4-E2	2	55.0	100/57.7	0.90	0.91	0.90	93.0	93.0	93.0	1770	290	575	176	198
MMG280S-4-E2	2	75.0	136/78.5	0.92	0.91	0.90	94.0	94.0	93.5	1770	240	565	188	200
MMG280M-4-E2	2	90.0	164/94.7	0.91	0.91	0.89	94.0	94.0	93.5	1770	575	520	166	188
MMG315S-4-E	-	110	200/116	0.89	0.89	0.89	93.0	93.5	94.0	1780	590	500	168	202
MMG315M-4-E	-	132	240/139	0.83	0.88	0.88	94.0	94.5	95.0	1780	705	650	178	220
MMG315LA-4-E	-	160	293/169	0.90	0.90	0.89	94.5	95.0	94.5	1780	860	455	156	184
MMG315LB-4-E	-	200	360/208	0.89	0.90	0.88	95.0	95.5	95.0	1780	1080	440	144	182
MMG355M-4-E	-	250	440/254	0.92	0.92	0.91	93.0	94.0	94.5	1780	1340	495	134	188
MMG355L-4-E	-	315	550/318	0.91	0.92	0.91	95.5	95.5	95.5	1780	1690	540	152	204

50 Hz data shown as 400 V Δ/ 690 V Y. 60 Hz data shown as 380 V Δ/ 660 V Y, 400 V Δ/ 690 V Y and 480 V Δ/ 690 V Y.



MMG Model E 4-pole · high voltage · 60 Hz

MMG-E		High voltage · 4-pole motors 60 Hz 400 V Δ/690 V Y												
Short type designation	Efficiency class	Shaft power P ₂ [kW]	Full load current I _N [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min ⁻¹]	Torque at 400 V M _N [Nm]	LRC I _s /I _N [%]	LRT M _s /M _N [%]	BT M ₈₇ /M _N [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MMG071A-4-E	-	0.25	0.690/0.400	0.58	0.70	0.80	55.5	61.5	65.0	1610	1.48	440	160	180
MMG071B-4-E	-	0.37	0.995/0.575	0.57	0.71	0.80	60.0	64.0	67.0	1610	2.20	440	160	180
MMG080A-4-E	-	0.55	1.40/0.805	0.57	0.71	0.80	61.5	68.0	71.0	1670	3.15	440	180	210
MMG080B-4-E	-	0.75	1.90/1.10	0.59	0.72	0.78	66.0	70.5	73.0	1670	4.30	520	170	210
MMG090S-4-E2	2	1.10	2.60/1.50	0.61	0.74	0.80	69.0	72.5	76.0	1680	6.25	520	170	210
MMG090L-4-E2	2	1.50	3.35/1.94	0.65	0.77	0.82	74.0	76.0	78.5	1680	8.55	520	170	230
MMG100L-4-E2	2	2.20	4.70/2.70	0.66	0.79	0.84	75.0	77.5	81.0	1700	12.4	620	190	230
MMG100L-4-E2	2	3.00	6.15/3.55	0.68	0.80	0.85	79.0	80.0	82.5	1700	16.8	620	180	230
MMG112M-4-E2	2	4.00	8.05/4.65	0.69	0.81	0.85	80.5	82.0	84.0	1730	22.2	620	210	230
MMG132S-4-E2	2	5.50	10.6/6.10	0.73	0.80	0.89	85.5	86.5	85.5	1740	30.0	610	190	260
MMG132M-4-E2	2	7.50	15.0/8.65	0.79	0.85	0.87	87.0	87.0	87.0	1730	41.0	640	180	250
MMG160M-4-E2	2	11.0	21.4/12.4	0.81	0.85	0.86	88.5	88.5	88.5	1750	60.0	630	210	230
MMG160L-4-E2	2	15.0	29.0/16.8	0.81	0.85	0.88	87.5	88.5	89.5	1750	81.5	640	200	190
MMG180M-4-E2	2	18.5	34.5/20.0	0.85	0.88	0.88	90.5	90.5	90.0	1760	100	620	210	250
MMG180L-4-E2	2	22.0	40.5/23.6	0.86	0.90	0.90	91.5	91.0	90.5	1760	120	640	220	260
MMG200L-4-E2	2	30.0	55.0/32.0	0.83	0.87	0.89	90.5	91.5	91.5	1760	162	620	170	190
MMG225S-4-E2	2	37.0	68.0/39.0	0.90	0.90	0.90	92.0	92.0	92.0	1770	200	570	140	230
MMG225M-4-E2	2	45.0	81.5/47.0	0.78	0.86	0.90	91.5	92.5	92.5	1780	242	620	170	190
MMG250M-4-E2	2	55.0	95.5/55.0	0.78	0.86	0.90	92.5	92.5	93.0	1780	295	620	170	190
MMG280S-4-E2	2	75.0	134/77.5	0.89	0.91	0.90	92.5	93.5	93.5	1780	400	610	210	190
MMG280M-4-E2	2	90.0	152/88.0	0.78	0.86	0.90	91.5	92.5	94.0	1790	480	620	170	270
MMG315S-4-E	-	110	186/106	0.78	0.86	0.91	92.0	93.0	94.5	1790	585	610	160	190
MMG315M-4-E	-	132	236/136	0.89	0.90	0.91	91.0	93.5	95.0	1790	705	550	180	180
MMG315LA-4-E	-	160	265/152	0.84	0.90	0.92	93.0	93.5	95.0	1790	850	620	160	280
MMG315LB-4-E	-	200	330/192	0.85	0.90	0.92	93.0	94.0	95.0	1790	1060	620	160	180
MMG355M-4-E	-	250	405/234	0.88	0.93	0.93	94.0	94.5	95.5	1790	1330	620	160	180
MMG355L-4-E	-	315	510/295	0.89	0.91	0.93	93.5	94.5	95.5	1790	1620	620	160	180
		High voltage · 4-pole motors 60 Hz 480 V Δ/690 V Y												
MMG071A-4-E	-	0.25	0.60/0.346	0.50	0.58	0.66	64.0	67.0	69.0	1690	1.78	510	330	285
MMG071B-4-E	-	0.37	0.90/0.52	0.55	0.62	0.69	71.0	73.0	74.0	1680	2.65	535	345	280
MMG080A-4-E	-	0.55	1.40/0.808	0.46	0.57	0.67	64.0	70.0	73.5	1730	3.15	595	340	305
MMG080B-4-E	-	0.75	1.70/0.982	0.59	0.67	0.69	74.0	76.0	76.0	1720	2.55	625	345	295
MMG090S-4-E2	2	1.10	2.20/1.27	0.59	0.65	0.75	78.0	79.5	80.5	1720	6.25	700	370	280
MMG090L-4-E2	2	1.50	3.00/1.73	0.59	0.70	0.73	79.5	81.5	81.5	1730	8.55	695	365	300
MMG100L-4-E2	2	2.20	4.00/2.30	0.59	0.68	0.79	78.0	81.0	83.0	1740	12.4	825	285	305
MMG100L-4-E2	2	3.00	6.00/3.46	0.46	0.63	0.72	76.5	82.5	84.0	1750	20.2	920	395	375
MMG112M-4-E2	2	4.00	7.00/4.04	0.69	0.75	0.80	85.0	86.0	86.5	1750	21.8	945	370	315
MMG132S-4-E2	2	5.50	9.00/5.20	0.78	0.82	0.83	88.0	88.0	88.5	1760	36.0	930	320	305
MMG132M-4-E2	2	7.50	12.2/7.04	0.80	0.82	0.83	90.0	90.0	90.0	1760	41.0	930	320	300
MMG160M-4-E2	2	11.0	17.6/10.2	0.74	0.78	0.83	89.5	90.0	90.5	1760	72.0	940	345	280
MMG160L-4-E2	2	15.0	23.2/13.4	0.82	0.84	0.86	91.0	91.0	91.0	1770	81.5	108	385	330
MMG180M-4-E2	2	18.5	28.5/16.5	0.82	0.85	0.86	90.0	90.5	91.0	1770	100	945	315	315
MMG180L-4-E2	2	22.0	33.0/19.5	0.86	0.87	0.87	92.0	92.0	92.0	1780	120	104	345	325
MMG200L-4-E2	2	30.0	44.5/25.7	0.81	0.83	0.88	93.0	93.0	93.5	1780	194	920	370	325
MMG225S-4-E2	2	37.0	54.0/31.2	0.86	0.88	0.88	93.0	93.5	93.5	1780	200	945	280	290
MMG225M-4-E2	2	45.0	66.5/38.4	0.81	0.84	0.86	92.5	93.0	93.5	1780	240	102	315	315
MMG250M-4-E2	2	55.0	79.5/45.9	0.87	0.88	0.88	93.0	94.0	93.5	1780	290	955	310	310
MMG280S-4-E2	2	75.0	106/61.2	0.87	0.88	0.90	94.0	94.5	94.5	1780	200	945	325	340
MMG280M-4-E2	2	90.0	126/72.7	0.91	0.91	0.91	94.5	94.5	94.5	1790	575	885	285	290
MMG315S-4-E	-	110	162/93.5	0.81	0.84	0.87	93.0	93.5	94.0	1790	585	780	270	320
MMG315M-4-E	-	132	190/110	0.76	0.84	0.88	92.0	93.5	94.5	1790	705	850	290	348
MMG315LA-4-E	-	160	228/132	0.84	0.87	0.87	94.5	95.0	95.0	1790	855	740	250	305
MMG315LB-4-E	-	200	286/165	0.79	0.95	0.88	93.5	95.0	95.5	1790	1060	700	232	290
MMG355M-4-E	-	250	345/199	0.89	0.90	0.91	94.0	95.0	95.0	1790	1340	805	218	300
MMG355L-4-E	-	315	440/254	0.82	0.88	0.89	94.5	95.0	95.5	1790	1680	855	248	320

50 Hz data shown as 400 V Δ/ 690 V Y. 60 Hz data shown as 380 V Δ/ 660 V Y, 400 V Δ/ 690 V Y and 480 V Δ/ 690 V Y.

Electrical data

MMG Model E 6-pole · low voltage · 50/60 Hz

MMG-E		Low voltage · 6-pole motors 50 Hz 230 V Δ/400 V Y												
Short type designation	Efficiency class	Shaft power P ₂	Full load current I _N	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M _N	LRC I _s /I _N	LRT M _s /M _N	BT M _{BT} /M _N
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min ⁻¹]	[Nm]	[%]	[%]	[%]
MMG080MA-6-E	-	0.37	1.90/1.10	0.48	0.49	0.73	34.0	59.5	66.5	900	3.95	360	168	220
MMG080MB-6-E	-	0.55	2.75/1.60	0.49	0.63	0.73	60.0	64.0	71.0	900	5.85	400	212	238
MMG090S-6-E	-	0.75	3.50/2.00	0.59	0.66	0.71	77.5	77.5	77.0	910	7.85	485	218	275
MMG090L-6-E	-	1.10	4.85/2.80	0.63	0.69	0.74	79.0	78.5	78.0	920	11.4	495	226	265
MMG100L-6-E	-	1.50	6.60/3.80	0.50	0.51	0.74	54.5	73.0	78.5	940	15.2	540	232	270
MMG112M-6-E	-	2.20	9.00/5.10	0.65	0.72	0.76	82.5	82.0	81.5	940	22.4	550	234	270
MMG132S-6-E	-	3.00	11.8/6.80	0.64	0.68	0.74	88.0	87.5	87.0	960	30.0	630	230	285
MMG132MA-6-E	-	4.00	15.0/8.70	0.62	0.69	0.76	83.0	85.0	84.5	960	40.0	680	240	285
MMG132MB-6-E	-	5.50	21.4/12.4	0.63	0.69	0.74	89.0	88.5	88.0	960	54.5	690	275	295
MMG160M-6-E	-	7.50	27.0/15.6	0.70	0.74	0.78	88.5	88.5	89.5	970	74.0	695	230	270
MMG160L-6-E	-	11.0	39.5/22.8	0.71	0.75	0.79	88.0	89.0	88.5	970	108	725	250	265
MMG180L-6-E	-	15.0	54.5/31.5	0.84	0.83	0.67	90.0	87.5	80.5	940	152	590	208	250
MMG200LA-6-E	-	18.5	61.5/35.5	0.75	0.80	0.83	90.5	90.5	90.5	980	180	775	234	295
MMG200LB-6-E	-	22.0	72.0/41.5	0.68	0.78	0.84	90.5	91.5	91.5	980	214	660	230	270
MMG225M-6-E	-	30.0	95.5/55.0	0.73	0.82	0.85	91.0	91.5	91.5	980	290	700	238	280
MMG250M-6-E	-	37.0	114/65.5	0.85	0.87	0.88	92.5	92.5	92.5	980	360	695	228	280
MMG280S-6-E	-	45.0	136/79.0	0.73	0.82	0.87	92.0	92.5	92.5	990	435	730	230	295
MMG280M-6-E	-	55.0	168/97.0	0.83	0.86	0.87	93.5	94.0	93.5	990	530	720	236	285
MMG315S-6-E	-	75.0	232/134	0.78	0.84	0.86	93.5	94.0	94.0	990	725	630	186	275
MMG315M-6-E	-	90.0	275/158	0.77	0.84	0.87	93.0	94.0	94.5	990	870	590	208	242
MMG315L-6-E	-	110	335/192	0.78	0.85	0.87	93.5	94.5	95.0	990	1060	595	214	242
		Low voltage · 6-pole motors 60 Hz 220 V Δ/380 V Y												
MMG080MA-6-E	-	0.37	1.90/1.10	0.60	0.68	0.77	74.0	71.0	67.0	1060	3.35	330	126	158
MMG080MB-6-E	-	0.55	2.75/1.59	0.73	0.76	0.78	78.5	71.5	68.5	1060	4.95	315	138	150
MMG090S-6-E	-	0.75	3.74/2.16	0.71	0.75	0.79	79.5	78.5	77.0	1100	6.50	415	150	174
MMG090L-6-E	-	1.10	4.50/2.60	0.66	0.77	0.82	77.0	78.5	77.0	1100	9.55	410	152	168
MMG100L-6-E	-	1.50	5.90/3.41	0.59	0.76	0.84	81.5	81.5	79.5	1120	12.8	465	152	178
MMG112M-6-E	-	2.20	8.60/4.97	0.78	0.80	0.82	83.5	82.5	82.0	1120	18.8	455	170	170
MMG132S-6-E	-	3.00	11.8/6.81	0.75	0.77	0.78	88.0	87.0	86.0	1150	30.0	490	152	184
MMG132MA-6-E	-	4.00	15.4/8.89	0.77	0.80	0.78	86.0	87.0	87.5	1150	33.0	565	250	260
MMG132MB-6-E	-	5.50	21.2/12.2	0.73	0.76	0.78	89.0	88.5	88.0	1150	45.5	690	275	295
MMG160M-6-E	-	7.50	27.5/15.9	0.78	0.80	0.81	89.0	88.0	88.0	1160	61.5	525	146	176
MMG160L-6-E	-	11.0	40.5/23.4	0.80	0.81	0.82	90.0	89.0	88.0	1160	90.5	535	154	174
MMG180L-6-E	-	15.0	51.0/29.4	0.78	0.83	0.86	89.0	90.5	90.0	1140	126	545	180	186
MMG200LA-6-E	-	18.5	62.5/36.1	0.85	0.83	0.87	90.0	90.0	89.5	1170	150	610	164	192
MMG200LB-6-E	-	22.0	73.5/42.4	0.81	0.85	0.87	91.5	91.0	90.5	1170	180	525	166	176
MMG225M-6-E	-	30.0	101/58.3	0.82	0.86	0.86	90.0	91.5	91.0	1170	244	535	170	182
MMG250M-6-E	-	37.0	120/69.3	0.89	0.89	0.88	92.5	92.5	92.0	1180	300	535	164	184
MMG280S-6-E	-	45.0	145/83.7	0.87	0.88	0.88	93.0	93.5	93.0	1180	365	570	166	194
MMG280M-6-E	-	55.0	176/102	0.89	0.89	0.88	93.5	93.5	93.0	1180	445	555	166	192
MMG315S-6-E	-	75.0	242/140	0.86	0.87	0.87	93.5	94.0	94.0	1180	605	495	136	188
MMG315M-6-E	-	90.0	270/156	0.87	0.88	0.89	94.0	95.0	95.5	1180	728	510	140	200
MMG315L-6-E	-	110	350/202	0.88	0.89	0.90	94.2	95.4	96.1	1180	890	520	150	200

50 Hz data shown as 230 V Δ/ 400 V Y. 60 Hz data shown as 220 V Δ/380 V Y, 230 V Δ/400 V Y and 277 V Δ/480 V Y.



MMG Model E 6-pole · low voltage · 60 Hz

MMG-E		Low voltage · 6-pole motors 60 Hz 230 V Δ/400 V Y												
Short type designation	Efficiency class	Shaft power P ₂	Full load current I _N	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M _N	LRC I _s /I _N	LRT M _s /M _N	BT M _{BT} /M _N
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min ⁻¹]	[Nm]	[%]	[%]	[%]
MMG080MA-6-E	-	0.37	1.86/1.06	0.53	0.66	0.75	66.0	68.5	66.5	1070	3.30	285	162	208
MMG080MB-6-E	-	0.55	2.60/1.50	0.54	0.68	0.76	71.5	72.5	70.0	1070	4.90	295	238	200
MMG090S-6-E	-	0.75	3.35/1.92	0.55	0.68	0.76	74.5	76.5	74.0	1090	6.55	350	250	212
MMG090L-6-E	-	1.10	4.60/2.65	0.56	0.70	0.78	79.0	79.5	77.0	1090	9.65	360	260	210
MMG100L-6-E	-	1.50	5.40/3.10	0.62	0.74	0.81	81.0	78.5	77.0	1100	13.0	355	188	196
MMG112M-6-E	-	2.20	8.50/4.90	0.61	0.72	0.79	83.5	83.0	82.0	1130	18.6	430	198	236
MMG132S-6-E	-	3.00	11.0/6.30	0.65	0.76	0.81	84.0	85.5	84.5	1150	25.0	525	176	236
MMG132MA-6-E	-	4.00	14.4/8.35	0.64	0.75	0.81	85.0	86.0	85.5	1150	33.0	570	210	265
MMG132MB-6-E	-	5.50	18.8/10.8	0.70	0.80	0.84	88.0	87.5	87.0	1150	45.5	216	170	174
MMG160M-6-E	-	7.50	26.5/15.2	0.70	0.78	0.81	87.5	88.5	87.5	1170	61.0	465	156	162
MMG160L-6-E	-	11.0	38.0/21.8	0.71	0.79	0.82	89.0	89.5	89.0	1170	90.0	490	170	160
MMG180L-6-E	-	15.0	48.5/28.0	0.74	0.82	0.86	90.0	91.0	90.5	1170	122	525	168	224
MMG200LA-6-E	-	18.5	60.0/34.5	0.74	0.82	0.85	91.0	91.5	91.0	1170	150	545	160	190
MMG200LB-6-E	-	22.0	41.0/23.6	0.75	0.83	0.85	91.0	91.5	91.0	1170	180	535	192	315
MMG225M-6-E	-	30.0	92.5/53.5	0.80	0.86	0.87	91.5	93.0	93.0	1170	244	525	176	285
MMG250M-6-E	-	37.0	112/64.5	0.80	0.87	0.89	92.0	93.0	92.5	1170	300	560	172	240
MMG280S-6-E	-	45.0	138/79.5	0.80	0.86	0.88	92.5	93.0	93.0	1180	365	560	168	228
MMG280M-6-E	-	55.0	166/95.5	0.82	0.87	0.89	93.0	93.5	93.5	1180	445	570	176	226
MMG315S-6-E	-	75.0	228/132	0.82	0.87	0.87	93.0	94.0	94.5	1180	605	465	106	196
MMG315M-6-E	-	90.0	270/156	0.83	0.87	0.88	93.5	94.5	94.5	1180	730	480	114	196
MMG315L-6-E	-	110	330/190	0.84	0.88	0.88	94.0	95.0	95.0	1180	890	485	120	196
		Low voltage · 6-pole motors 60 Hz 277 V Δ/480 V Y												
MMG080MA-6-E	-	0.37	1.74/1.00	0.50	0.56	0.61	50.0	60.0	69.5	1130	3.15	470	235	260
MMG080MB-6-E	-	0.55	2.42/1.40	0.50	0.55	0.64	70.5	78.5	73.0	1130	4.65	475	260	255
MMG090S-6-E	-	0.75	3.10/1.79	0.53	0.58	0.63	79.5	80.0	80.0	1150	6.25	565	265	285
MMG090L-6-E	-	1.10	4.15/2.40	0.55	0.60	0.67	56.5	78.0	81.0	1140	9.20	590	275	280
MMG100L-6-E	-	1.50	5.90/3.41	0.40	0.45	0.67	48.5	69.0	79.5	1150	12.4	630	285	290
MMG112M-6-E	-	2.20	7.80/4.50	0.65	0.72	0.71	82.5	82.0	83.5	1150	18.2	675	310	275
MMG132S-6-E	-	3.00	10.0/5.77	0.58	0.66	0.69	88.0	89.0	89.0	1170	24.4	805	305	275
MMG132MA-6-E	-	4.00	13.0/7.51	0.62	0.69	0.71	86.0	87.0	90.0	1170	32.5	830	295	305
MMG132MB-6-E	-	5.50	18.4/10.6	0.61	0.68	0.69	90.0	90.0	90.0	1170	45.0	870	360	295
MMG160M-6-E	-	7.50	23.2/13.4	0.67	0.73	0.74	88.0	89.0	90.0	1170	61.0	885	30	285
MMG160L-6-E	-	11.0	33.5/19.3	0.71	0.75	0.76	89.0	90.0	90.0	1170	90.0	930	330	260
MMG180L-6-E	-	15.0	44.0/25.4	0.45	0.67	0.79	85.0	89.0	90.5	1180	122	845	310	295
MMG200LA-6-E	-	18.5	53.0/30.6	0.72	0.87	0.80	89.5	90.5	90.5	1180	150	980	305	300
MMG200LB-6-E	-	22.0	61.5/35.5	0.64	0.74	0.82	89.5	91.0	91.5	1180	178	835	295	285
MMG225M-6-E	-	30.0	79.5/45.9	0.65	0.75	0.84	90.0	91.0	92.5	1180	242	920	320	290
MMG250M-6-E	-	37.0	95.5/55.1	0.84	0.86	0.87	91.5	92.0	92.5	1190	295	890	290	285
MMG280S-6-E	-	45.0	117/67.5	0.72	0.81	0.86	93.0	93.0	93.5	1190	360	930	290	305
MMG280M-6-E	-	55.0	142/82.0	0.80	0.84	0.86	92.5	93.5	94.0	1190	440	920	295	295
MMG315S-6-E	-	75.0	196/113	0.76	0.81	0.84	92.5	93.5	94.0	1190	600	800	235	290
MMG315M-6-E	-	90.0	210/121	0.78	0.82	0.85	92.3	95.4	95.8	1190	723	820	250	310
MMG315L-6-E	-	110	270/156	0.79	0.84	0.87	93.2	95.6	96.0	1190	883	850	260	340

50 Hz data shown as 230 V Δ/400 V Y. 60 Hz data shown as 220 V Δ/380 V Y, 230 V Δ/400 V Y and 277 V Δ/480 V Y.

Electrical data

MMG Model E 6-pole · high voltage · 50/60 Hz

MMG-E		High voltage · 6-pole motors 50 Hz 400 V Δ/690 V Y												
Short type designation	Efficiency class	Shaft power P ₂	Full load current I _N	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M _N	LRC I _s /I _N	LRT M _s /M _N	BT M _{BT} /M _N
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min ⁻¹]	[Nm]	[%]	[%]	[%]
MMG080MA-6-E	-	0.37	1.20/0.695	0.48	0.49	0.73	34.0	59.5	66.5	900	3.95	360	168	220
MMG080MB-6-E	-	0.55	1.60/0.925	0.49	0.63	0.73	60.0	64.0	71.0	900	5.85	400	212	235
MMG090S-6-E	-	0.75	2.00/1.16	0.59	0.66	0.71	77.5	77.5	77.0	910	7.85	485	218	275
MMG090L-6-E	-	1.10	2.80/1.60	0.63	0.69	0.74	79.0	78.5	78.0	920	11.4	495	226	265
MMG100L-6-E	-	1.50	3.80/2.20	0.50	0.51	0.74	54.5	73.0	78.5	940	15.2	540	232	270
MMG112M-6-E	-	2.20	5.10/2.95	0.65	0.72	0.76	82.5	82.0	81.5	940	22.4	550	234	270
MMG132S-6-E	-	3.00	6.80/3.90	0.64	0.68	0.74	88.0	87.5	87.0	960	30.0	630	230	285
MMG132MA-6-E	-	4.00	8.70/5.00	0.62	0.69	0.76	83.0	85.0	84.5	960	40.0	680	240	285
MMG132MB-6-E	-	5.50	12.4/7.15	0.63	0.69	0.74	89.0	88.5	88.0	960	54.5	690	275	295
MMG160M-6-E	-	7.50	15.6/9.00	0.70	0.74	0.78	88.5	88.5	89.5	970	74.0	695	230	270
MMG160L-6-E	-	11.0	22.8/12.2	0.71	0.75	0.79	88.0	89.0	88.5	970	108	725	250	265
MMG180L-6-E	-	15.0	31.5/18.2	0.84	0.83	0.67	90.0	87.5	80.5	940	152	590	208	250
MMG200LA-6-E	-	18.5	35.5/20.4	0.75	0.80	0.83	90.5	90.5	90.5	980	180	775	234	295
MMG200LB-6-E	-	22.0	41.5/24.0	0.68	0.78	0.84	90.5	91.5	91.5	980	214	660	230	270
MMG225M-6-E	-	30.0	55.0/32.0	0.73	0.82	0.85	91.0	91.5	91.5	980	290	700	236	280
MMG250M-6-E	-	37.0	65.5/37.5	0.85	0.87	0.88	92.5	92.5	92.5	980	360	695	228	280
MMG280S-6-E	-	45.0	79.0/45.5	0.73	0.82	0.87	92.0	92.5	92.5	990	435	730	230	295
MMG280M-6-E	-	55.0	97.0/56.0	0.83	0.86	0.87	93.5	94.0	93.5	990	530	720	236	285
MMG315S-6-E	-	75.0	134/77.0	0.78	0.84	0.86	93.5	94.0	94.0	990	725	630	186	275
MMG315M-6-E	-	90.0	158/91.0	0.77	0.84	0.87	93.0	94.0	94.5	990	870	590	206	240
MMG315L-6-E	-	110	192/112	0.78	0.85	0.87	93.5	94.5	95.0	990	1060	595	214	240
		High voltage · 6-pole motors 60 Hz 380 V Δ/660 V Y												
MMG080MA-6-E	-	0.37	1.10/0.64	0.60	0.69	0.77	74.0	71.0	67.0	1060	3.35	330	126	158
MMG080MB-6-E	-	0.55	1.60/0.92	0.73	0.77	0.78	78.5	71.5	68.5	1060	4.95	315	138	150
MMG090S-6-E	-	0.75	1.90/1.10	0.71	0.75	0.79	79.5	78.5	77.0	1100	6.50	415	150	174
MMG090L-6-E	-	1.10	2.60/1.50	0.66	0.77	0.82	77.0	78.5	77.0	1100	9.55	410	152	168
MMG100L-6-E	-	1.50	3.40/1.96	0.59	0.76	0.84	81.5	81.5	79.5	1120	12.8	465	152	178
MMG112M-6-E	-	2.20	5.00/2.89	0.78	0.8	0.82	83.5	82.5	82.0	1120	18.8	455	170	170
MMG132S-6-E	-	3.00	6.80/3.93	0.75	0.77	0.78	88.0	87.0	86.0	1150	25.0	490	152	184
MMG132MA-6-E	-	4.00	8.90/5.14	0.77	0.80	0.78	86.0	87.0	87.5	1150	33.0	565	250	260
MMG132MB-6-E	-	5.50	12.2/7.04	0.73	0.76	0.78	89.0	88.5	88.0	1150	45.5	690	275	295
MMG160M-6-E	-	7.50	16.0/9.24	0.78	0.80	0.81	89.0	88.0	88.0	1160	61.5	525	146	176
MMG160L-6-E	-	11.0	23.4/13.5	0.80	0.81	0.82	90.0	89.0	88.0	1160	90.5	535	154	174
MMG180L-6-E	-	15.0	29.5/17.0	0.78	0.83	0.86	89.0	90.5	90.0	1140	126	545	180	186
MMG200LA-6-E	-	18.5	36.0/20.8	0.85	0.83	0.87	90.0	90.0	89.5	1170	150	610	164	192
MMG200LB-6-E	-	22.0	42.5/24.5	0.81	0.85	0.87	91.5	91.0	90.5	1170	180	525	166	176
MMG225M-6-E	-	30.0	58.5/33.8	0.82	0.86	0.86	90.0	91.5	91.0	1170	244	535	170	182
MMG250M-6-E	-	37.0	69.0/39.8	0.89	0.89	0.88	92.5	92.5	92.0	1180	300	535	164	184
MMG280S-6-E	-	45.0	84.0/48.5	0.87	0.88	0.88	93.0	93.5	93.0	1180	365	570	166	194
MMG280M-6-E	-	55.0	102/58.9	0.89	0.89	0.88	93.5	93.5	93.0	1180	445	555	166	192
MMG315S-6-E	-	75.0	140/80.8	0.86	0.87	0.87	93.5	94.0	94.0	1180	605	495	136	188
MMG315M-6-E	-	90.0	160/92.4	0.87	0.88	0.89	94.0	95.0	95.5	1180	728	510	140	200
MMG315L-6-E	-	110	200/115.5	0.88	0.89	0.90	94.2	95.4	96.1	1180	890	520	150	200

50 Hz data shown as 400 V Δ/ 690 V Y. 60 Hz data shown as 380 V Δ/ 660 V Y, 400 V Δ/ 690 V Y and 480 V Δ/ 690 V Y.

MMG Model E 6-pole · high voltage · 60 Hz

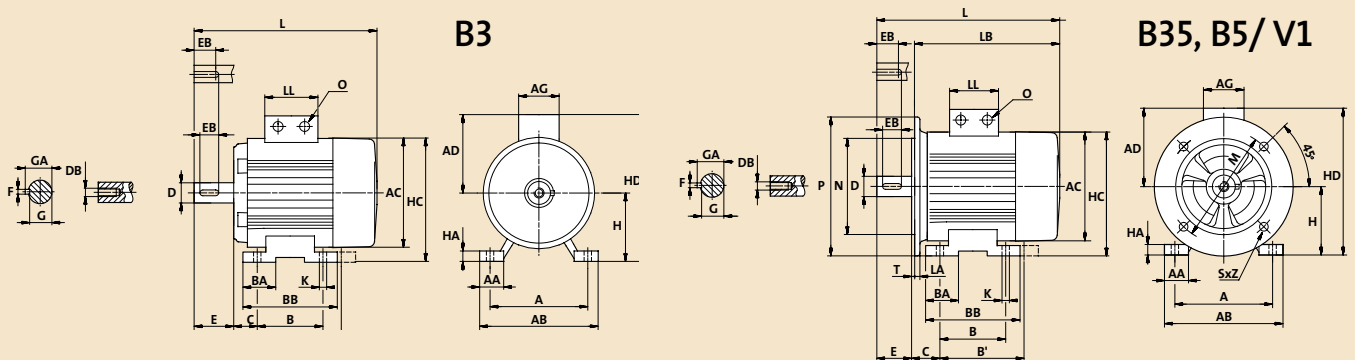
MMG-E		High voltage · 6-pole motors 60 Hz 400 V Δ/690 V Y												
Short type designation	Efficiency class	Shaft power P ₂	Full load current I _N	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M _N	LRC I _s /I _N	LRT M _s /M _N	BT M _{BT} /M _N
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min ⁻¹]	[Nm]	[%]	[%]	[%]
MMG080MA-6-E	-	0.37	1.06/0.615	0.53	0.66	0.75	66.0	68.5	66.5	1070	3.30	285	162	208
MMG080MB-6-E	-	0.55	1.50/0.865	0.54	0.68	0.76	71.5	72.5	70.0	1070	4.90	295	238	200
MMG090S-6-E	-	0.75	1.92/1.10	0.55	0.68	0.76	74.5	76.5	74.0	1090	6.55	350	250	212
MMG090L-6-E	-	1.10	2.65/1.52	0.56	0.70	0.78	79.0	79.5	77.0	1090	9.65	360	260	210
MMG100L-6-E	-	1.50	3.10/1.78	0.62	0.74	0.81	81.0	78.5	77.0	1100	13.0	355	188	196
MMG112M-6-E	-	2.20	4.90/2.85	0.61	0.72	0.79	83.5	83.0	82.0	1130	18.6	430	198	236
MMG132S-6-E	-	3.00	6.30/3.65	0.65	0.76	0.81	84.0	85.5	84.5	1150	25.0	525	176	236
MMG132MA-6-E	-	4.00	8.35/4.80	0.64	0.75	0.81	85.0	86.0	85.5	1150	33.0	570	210	265
MMG132MB-6-E	-	5.50	10.8/6.25	0.70	0.80	0.84	88.0	87.5	87.0	1150	45.5	216	170	174
MMG160M-6-E	-	7.50	15.2/8.80	0.70	0.78	0.81	87.5	88.5	87.5	1170	61.0	465	156	162
MMG160L-6-E	-	11.0	21.8/12.6	0.71	0.79	0.82	89.0	89.5	89.0	1170	90.0	490	170	160
MMG180L-6-E	-	15.0	28.0/16.0	0.74	0.82	0.86	90.0	91.0	90.5	1170	122	525	168	224
MMG200LA-6-E	-	18.5	34.5/20.0	0.74	0.82	0.85	91.0	91.5	91.0	1170	150	545	160	190
MMG200LB-6-E	-	22.0	41.0/23.6	0.75	0.83	0.85	91.0	91.5	91.0	1170	180	535	192	315
MMG225M-6-E	-	30.0	53.5/31.0	0.80	0.86	0.87	91.5	93.0	93.0	1170	244	525	176	285
MMG250M-6-E	-	37.0	64.5/37.5	0.80	0.87	0.89	92.0	93.0	92.5	1170	300	560	172	240
MMG280S-6-E	-	45.0	79.5/46.0	0.80	0.86	0.88	92.5	93.0	93.0	1180	365	560	168	228
MMG280M-6-E	-	55.0	95.5/55.0	0.82	0.87	0.89	93.0	93.5	93.5	1180	445	570	176	226
MMG315S-6-E	-	75.0	132/76.0	0.82	0.87	0.87	93.0	94.0	94.5	1180	605	465	106	196
MMG315M-6-E	-	90.0	156/90.0	0.83	0.87	0.88	93.5	94.5	94.5	1180	730	480	114	196
MMG315L-6-E	-	110	190/110	0.84	0.88	0.88	94.0	95.0	95.0	1180	890	485	120	196
		High voltage · 6-pole motors 60 Hz 480 V Δ/690 V Y												
MMG080MA-6-E	-	0.37	1.00/0.577	0.50	0.56	0.61	50.0	60.0	69.5	1130	3.15	470	235	260
MMG080MB-6-E	-	0.55	1.40/0.81	0.50	0.55	0.63	70.5	78.5	73.0	1130	4.65	475	260	255
MMG090S-6-E	-	0.75	1.80/1.04	0.53	0.58	0.63	79.5	80.0	80.0	1150	6.25	565	265	280
MMG090L-6-E	-	1.10	2.40/1.39	0.55	0.60	0.67	56.5	78.0	81.0	1140	9.20	590	275	280
MMG100L-6-E	-	1.50	3.40/1.96	0.40	0.45	0.69	48.5	69.0	79.5	1150	12.4	630	285	290
MMG112M-6-E	-	2.20	4.50/2.60	0.65	0.72	0.71	82.5	82.0	83.5	1150	18.2	675	310	275
MMG132S-6-E	-	3.00	5.80/3.35	0.58	0.66	0.69	88.0	89.0	89.0	1170	24.4	805	305	275
MMG132MA-6-E	-	4.00	7.50/4.33	0.62	0.69	0.71	86.0	87.0	90.0	1170	32.5	830	295	305
MMG132MB-6-E	-	5.50	10.6/6.12	0.61	0.68	0.69	90.0	90.0	90.0	1170	45.0	870	360	295
MMG160M-6-E	-	7.50	13.4/7.74	0.67	0.73	0.74	88.0	89.0	90.0	1170	61.0	885	300	285
MMG160L-6-E	-	11.0	19.4/11.2	0.71	0.75	0.76	89.0	90.0	90.0	1170	90.0	930	330	260
MMG180L-6-E	-	15.0	25.5/14.7	0.45	0.67	0.79	85.0	89.0	90.5	1180	122	845	310	295
MMG200LA-6-E	-	18.5	30.5/17.6	0.72	0.87	0.80	89.5	90.5	90.5	1180	150	980	305	300
MMG200LB-6-E	-	22.0	35.4/20.4	0.64	0.74	0.82	89.5	91.0	91.5	1180	178	835	295	285
MMG225M-6-E	-	30.0	46.2/26.7	0.65	0.75	0.84	90.0	91.0	92.5	1180	242	920	320	290
MMG250M-6-E	-	37.0	54.8/31.6	0.84	0.86	0.87	91.5	92.0	92.5	1190	295	890	290	285
MMG280S-6-E	-	45.0	67.6/39.0	0.72	0.81	0.86	93.0	93.0	93.5	1190	360	930	290	305
MMG280M-6-E	-	55.0	81.5/47.1	0.80	0.84	0.86	92.5	93.5	94.0	1190	440	920	295	295
MMG315S-6-E	-	75.0	114/65.8	0.76	0.81	0.84	92.5	93.5	94.0	1190	600	800	235	290
MMG315M-6-E	-	90.0	120/69.3	0.78	0.82	0.85	92.3	95.4	95.8	1190	723	820	250	310
MMG315L-6-E	-	110	150/86.6	0.79	0.84	0.87	93.2	95.6	96.0	1190	883	850	260	340

50 Hz data shown as 400 V Δ/ 690 V Y. 60 Hz data shown as 380 V Δ/ 660 V Y, 400 V Δ/ 690 V Y and 480 V Δ/ 690 V Y.

Dimensions

Frame size 71 - 355

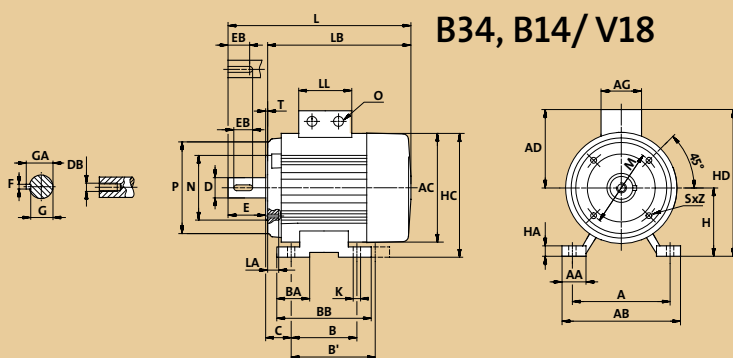
Frame size	Poles	Stator housing										Shaft end				
		IEC:	AD	U	AE	AF	C	H	L	LB	LL	D	E	EB	F	GA
		DIN:	p1				w1	h	k			d	l		u	t
71 A, B	2, 4, 6		121	22	46	46	45	71	242	212	92	ø14 j6	30	20	5	16
80 A, B	2, 4, 6		133	22	46	46	50	80	288	248	92	ø19 j6	40	22	6	21.5
90 S, SA, SB	2, 4, 6		146	28	53	53	59	90	310	260	100	ø24 j6	50	32	8	27
90 L	2, 4, 6		146	28	53	53	59	90	335	285	100	ø24 j6	50	32	8	27
100 L, LA, LB	2, 4, 6		160	25	48	48	63	100	377	317	106	ø28 j6	60	40	8	31
112 M	2, 4, 6		180	23	58	58	70	112	391	331	118	ø28 j6	60	40	8	31
132 S, SA, SB	2, 4, 6		200	35	58	58	89	132	463	383	118	ø38 k6	80	56	10	41
132 MA, MB	2, 4, 6		200	35	58	58	89	132	501	421	118	ø38 k6	80	56	10	41
160 M, MA, MB	2, 4, 6		248	91	80	80	108	160	608	498	150	ø42 m6	110	80	12	45
160 L	2, 4, 6		248	91	80	80	108	160	652	542	150	ø42 m6	110	80	12	45
180 M	2, 4, 6		264	88	80	80	121	180	690	580	150	ø48 m6	110	80	14	51.5
180 L	2, 4, 6		264	88	80	80	121	180	690	580	150	ø48 m6	110	80	14	51.5
200 LA, LB	2, 4, 6		297	92	114	114	133	200	757	647	188	ø55 m6	110	80	16	59
225 M	2		320	95	114	114	150	225	807	697	188	ø55 m6	110	80	16	59
225 S	4, 6		320	95	114	114	150	225	812	672	188	ø60 m6	140	100	18	64
225 M	4, 6		320	95	114	114	150	225	837	697	188	ø60 m6	140	100	18	64
250 M	2		359	101,5	138	108	168	250	910	770	216	ø60 m6	140	100	18	64
250 M	4, 6		359	101,5	138	108	168	250	910	770	216	ø65 m6	140	100	18	69
280 S	2		386	108	140	106	189,5	280	943	803	216	ø65 m6	140	100	18	69
280 S	4, 6		386	108	140	106	189,5	280	943	803	216	ø75 m6	140	100	20	79.5
280 M	2		386	108	140	106	189,5	280	994	854	216	ø65 m6	140	100	18	69
280 M	4, 6		386	108	140	106	189,5	280	994	854	216	ø75 m6	140	100	20	79.5
315 S	2		471	116	180	140	215	315	1177	1037	280	ø65 m6	140	100	18	69
315 S	4, 6		471	116	180	140	215	315	1204	1034	280	ø80 m6	170	130	22	85
315 M, MA, MB	2		471	116	180	140	215	315	1287	1147	280	ø65 m6	140	100	18	69
315 M, MA, MB	4, 6		471	116	180	140	215	315	1317	1147	280	ø80 m6	170	130	22	85
315 L, LA, LB	2		471	116	180	140	215	315	1287	1147	280	ø65 m6	140	100	18	69
315 L, LA, LB	4, 6		471	116	180	140	215	315	1317	1147	280	ø80 m6	170	130	22	85
355 M, MA, MB	2		639	119,5	215	165	254	355	1486	1346	380	ø75 m6	140	100	20	80
355 M, MA, MB	4, 6		639	119,5	215	165	254	355	1516	1346	330	ø95 m6	170	130	25	100
355 L, LA, LB	2		639	119,5	215	165	254	355	1486	1346	330	ø75 m6	140	100	20	80
355 L, LA, LB	4, 6		639	119,5	215	165	254	355	1516	1346	330	ø95 m6	170	130	25	100





Feet								Flange B35, B5/V1							Cable entry
A	AA	AB	B	BB	HA	K	K1	LA	M	N	P	S	T	Z	O
b	n	f	a	e	c	s		c1	e1	b1	a1	s1	f1		
112	34	144	90	120	8	7	11	10	130	110	160	10	3.5	4	2 x M20 x 1.5
125	34	160	100	130	10	10	-	12.5	165	130	200	12	3.5	4	2 x M25 x 1.5
140	36	180	100	140	12	10	-	15	165	130	200	12	3.5	4	2 x M25 x 1.5
140	36	180	125	165	12	10	-	15	165	130	203	12	3.5	4	2 x M25 x 1.5
160	40	200	140	176	14	12	18	13	215	180	249	15	4	4	3 x M25 x 1.5
190	45	226	140	180	15	12	18	14	215	180	250	15	4	4	2 x M32 x 1.5 + M25 x 1.5
216	55	262	140	186	18	12	18	14	265	230	300	15	5	4	2 x M32 x 1.5 + M25 x 1.5
216	55	262	178	224	18	12	18	14	265	230	300	15	5	4	2 x M32 x 1.5 + M25 x 1.5
254	65	314	210	260	20	15	25	15	300	250	349	18.5	5	4	2 x M40 x 1.5 + M25 x 1.5
254	65	314	254	304	20	15	25	15	300	250	349	18.5	5	4	2 x M40 x 1.5 + M25 x 1.5
279	70	349	241	311	22	15	25	18	300	250	350	18.5	5	4	2 x M40 x 1.5 + M25 x 1.5
279	70	349	279	349	22	15	25	18	300	250	350	18.5	5	4	2 x M40 x 1.5 + M25 x 1.5
318	70	388	305	369	25	19	30	17	350	300	399	19	5	4	2 x M50 x 1.5 + M25 x 1.5
356	75	431	311	393	28	19	32	20	400	350	449	18.5	5	8	2 x M50 x 1.5 + M25 x 1.5
356	75	431	286	368	28	19	32	20	400	350	449	18.5	5	8	2 x M50 x 1.5 + M25 x 1.5
356	75	431	311	393	28	19	32	20	400	350	449	18.5	5	8	2 x M50 x 1.5 + M25 x 1.5
406	80	484	349	445	30	24	38	22	500	450	550	19	5	8	2 x M63 x 1.5 + M25 x 1.5
406	80	484	349	445	30	24	38	22	500	450	550	19	5	8	2 x M63 x 1.5 + M25 x 1.5
457	85	542	368	485	35	24	40	22	500	450	550	19	5	8	2 x M63 x 1.5 + M25 x 1.5
457	85	542	368	485	35	24	40	22	500	450	550	19	5	8	2 x M63 x 1.5 + M25 x 1.5
457	85	542	419	536	35	24	40	22	500	450	550	19	5	8	2 x M63 x 1.5 + M25 x 1.5
457	85	542	419	536	35	24	40	22	500	450	550	19	5	8	2 x M63 x 1.5 + M25 x 1.5
508	120	628	406	570	45	28	45	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
508	120	628	406	570	45	28	45	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
508	120	628	457	680	45	28	45	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
508	120	628	457	680	45	28	45	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
508	120	628	508	680	45	28	45	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
610	116	726	560	750	52	28	42	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
610	116	726	560	750	52	28	42	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
610	116	726	630	750	52	28	42	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5
610	116	726	630	750	52	28	42	-	-	-	-	-	-	-	2 x M63 x 1.5 + M25 x 1.5

Frame size 71 · 112



FRAME SIZE	IEC	Poles	Flange B34, B14/V18				
			M	N	P	SxZ	T
DIN	e1	b1	a1	s1	f1		
71 A, B	2, 4, 6	85	70	105	M6x4	2.5	
80 A, B	2, 4, 6	100	80	120	M6x4	3.0	
90 S, SA, SB	2, 4, 6	115	95	140	M8x4	3.0	
90 L	2, 4, 6	115	95	140	M8x4	3.0	
100 L, LA, LB	2, 4, 6	130	110	160	M8x4	3.5	
112 M	2, 4, 6	130	110	160	M8x4	3.5	



**MMG
Model E**

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