

Electromechanical starters

Direct-on-line starters - Full voltage across the line.

Non reversing three phase

Enclosed with thermal overload relay

4



M0 P...12 M0 R...12



M1 P...12 M1 R...12



M2 P...12 M2 R...12



M25 P038 12



M25 R038 12



M3 P...12



M3 R...12

new

new

Order code	Relay adj range		IEC technical characteristics (≤440V)		Qty per pkg	Wt [kg]
	[A]	[A]	[kW]	n°		
Starters with Start and Stop/Reset pushbuttons [Ⓢ]						
M0 P009 12 [Ⓢ] 01	0.6-1	1	0.18-0.25	1	0.760	
M0 P009 12 [Ⓢ] 1V5	0.9-1.5	1.5	0.37	1	0.760	
M0 P009 12 [Ⓢ] 2V3	1.4-2.3	2.3	0.55-0.75	1	0.760	
M0 P009 12 [Ⓢ] 33	2-3.3	3.3	1.1	1	0.760	
M0 P009 12 [Ⓢ] 05	3-5	5	1.5-2.2	1	0.760	
M0 P009 12 [Ⓢ] 075	4.5-7.5	7.5	2.2-3	1	0.760	
M0 P009 12 [Ⓢ] 10	6-10	10	3-4	1	0.760	
M0 P012 12 [Ⓢ] 15	9-15	12	5.5	1	0.760	
M1 P009 12 [Ⓢ] A4	0.63-1	1	0.25	1	1.040	
M1 P009 12 [Ⓢ] A5	1-1.6	1.6	0.37-0.55	1	1.040	
M1 P009 12 [Ⓢ] A6	1.6-2.5	2.5	0.75	1	1.040	
M1 P009 12 [Ⓢ] A7	2.5-4	4	1.1-1.5	1	1.040	
M1 P009 12 [Ⓢ] A8	4-6.5	6.5	2.2-3	1	1.040	
M1 P009 12 [Ⓢ] A9	6.3-10	10	3-4	1	1.040	
M1 P009 12 [Ⓢ] B0	9-14	13	5.5	1	1.040	
M1 P018 12 [Ⓢ] B1	13-18	18	7.5	1	1.040	
M2 P025 12 [Ⓢ] B2	17-23	23	11	1	1.220	
M2 P025 12 [Ⓢ] B3	20-25	25	11	1	1.220	
M2 P032 12 [Ⓢ] B4	24-32	32	15	1	1.300	
M25 P038 12 [Ⓢ] B5	32-38	38	18.5	1	2.880	
M3 P050 12 [Ⓢ] B6	35-50	50	18.5-22	1	3.760	
M3 P065 12 [Ⓢ] B7	45-65	65	30	1	3.760	
M3 P080 12 [Ⓢ] B8	60-82	80	37-45	1	3.760	
M3 P095 12 [Ⓢ] B9	70-95	95	45	1	3.760	

Starters with Reset pushbuttons [Ⓢ]						
Order code	Relay adj range		IEC technical characteristics (≤440V)		Qty per pkg	Wt [kg]
	[A]	[A]	[kW]	n°		
M0 R009 12 [Ⓢ] 01	0.6-1	1	0.18-0.25	1	0.720	
M0 R009 12 [Ⓢ] 1V5	0.9-1.5	1.5	0.37	1	0.720	
M0 R009 12 [Ⓢ] 2V3	1.4-2.3	2.3	0.55-0.75	1	0.720	
M0 R009 12 [Ⓢ] 33	2-3.3	3.3	1.1	1	0.720	
M0 R009 12 [Ⓢ] 05	3-5	5	1.5-2.2	1	0.720	
M0 R009 12 [Ⓢ] 075	4.5-7.5	7.5	2.2-3	1	0.720	
M0 R009 12 [Ⓢ] 10	6-10	10	3-4	1	0.720	
M0 R012 12 [Ⓢ] 15	9-15	12	5.5	1	0.720	
M1 R009 12 [Ⓢ] A4	0.63-1	1	0.25	1	0.995	
M1 R009 12 [Ⓢ] A5	1-1.6	1.6	0.37-0.55	1	0.995	
M1 R009 12 [Ⓢ] A6	1.6-2.5	2.5	0.75	1	0.995	
M1 R009 12 [Ⓢ] A7	2.5-4	4	1.1-1.5	1	0.995	
M1 R009 12 [Ⓢ] A8	4-6.5	6.5	2.2-3	1	0.995	
M1 R009 12 [Ⓢ] A9	6.3-10	10	3-4	1	0.995	
M1 R009 12 [Ⓢ] B0	9-14	13	5.5	1	0.995	
M1 R018 12 [Ⓢ] B1	13-18	18	7.5	1	0.995	
M2 R025 12 [Ⓢ] B2	17-23	23	11	1	1.165	
M2 R025 12 [Ⓢ] B3	20-25	25	11	1	1.165	
M2 R032 12 [Ⓢ] B4	24-32	32	15	1	1.260	
M25 R038 12 [Ⓢ] B5	32-38	38	18.5	1	2.600	
M3 R050 12 [Ⓢ] B6	35-50	50	18.5-22	1	3.410	
M3 R065 12 [Ⓢ] B7	45-65	65	30	1	3.410	
M3 R080 12 [Ⓢ] B8	60-82	80	37-45	1	3.410	
M3 R095 12 [Ⓢ] B9	70-95	95	45	1	3.410	

[Ⓢ] Complete order code with coil voltage digit (if 50/60Hz) or with voltage digit followed by 60 (if 60Hz).
Standard voltages are as follows:
- AC 50/60Hz 024 / 048 / 110 / 230 / 400V
- AC 60Hz 024 60 / 048 60 / 120 60 / 220 60 / 230 60 / 460 60 / 575 60 (V).
Example: M0 R009 12 024 1 for direct-on-line starter in M0 type enclosure with Reset button, 9A/AC3 contactor with 24VAC 50/60Hz coil and 0.6-1A thermal overload relay.
M0 P009 12 024 60 1 for direct-on-line starter in M0 type enclosure with Start and Stop/Reset buttons, 9A /AC3 contactor with 24VAC 60Hz coil and 0.6-1A thermal overload relay.

[Ⓢ] Protection fuses are to be mounted externally by the user.

Components	Starter enclosure	Contactor	Thermal relay	Auxiliary contact block
M0 PA	BG09 10A	RF9 1	—	—
M0 PA	BG09 10A	RF9 1V5	—	—
M0 PA	BG09 10A	RF9 2V3	—	—
M0 PA	BG09 10A	RF9 33	—	—
M0 PA	BG09 10A	RF9 5	—	—
M0 PA	BG09 10A	RF9 75	—	—
M0 PA	BG09 10A	RF9 10	—	—
M0 PA	BG12 10A	RF9 15	—	—
M1 PA	BF09 10A	RF38 0100	—	—
M1 PA	BF09 10A	RF38 0160	—	—
M1 PA	BF09 10A	RF38 0250	—	—
M1 PA	BF09 10A	RF38 0400	—	—
M1 PA	BF09 10A	RF38 0650	—	—
M1 PA	BF09 10A	RF38 1000	—	—
M1 PA	BF09 10A	RF38 1400	—	—
M1 PA	BF18 10A	RF38 1800	—	—
M2 PA	BF25 10A	RF38 2300	—	—
M2 PA	BF25 10A	RF38 2500	—	—
M2 PA	BF32 00A	RF38 3200	G418 10	—
M25 PA	BF38 00A	RF38 3800	G418 10	—
M3 PA	BF50 00	RF95 3 50	G418 10	—
M3 PA	BF65 00	RF95 3 65	G418 10	—
M3 PA	BF80 00	RF95 3 82	G418 10	—
M3 PA	BF95 00	RF95 3 95	G418 10	—
M0 RA	BG09 10A	RF9 1	—	—
M0 RA	BG09 10A	RF9 1V5	—	—
M0 RA	BG09 10A	RF9 2V3	—	—
M0 RA	BG09 10A	RF9 33	—	—
M0 RA	BG09 10A	RF9 5	—	—
M0 RA	BG09 10A	RF9 75	—	—
M0 RA	BG09 10A	RF9 10	—	—
M0 RA	BG12 10A	RF9 15	—	—
M1 RA	BF09 10A	RF38 0100	—	—
M1 RA	BF09 10A	RF38 0160	—	—
M1 RA	BF09 10A	RF38 0250	—	—
M1 RA	BF09 10A	RF38 0400	—	—
M1 RA	BF09 10A	RF38 0650	—	—
M1 RA	BF09 10A	RF38 1000	—	—
M1 RA	BF09 10A	RF38 1400	—	—
M1 RA	BF18 10A	RF38 1800	—	—
M2 RA	BF25 10A	RF38 2300	—	—
M2 RA	BF25 10A	RF38 2500	—	—
M2 RA	BF32 00A	RF38 3200	G418 10	—
M25 RA	BF38 00A	RF38 3800	G418 10	—
M3 RA	BF50 00	RF95 3 50	G418 10	—
M3 RA	BF65 00	RF95 3 65	G418 10	—
M3 RA	BF80 00	RF95 3 82	G418 10	—
M3 RA	BF95 00	RF95 3 95	G418 10	—

Operational characteristics
Certifications and compliance
Refer to page 4-3 for details.

Special M3... versions
Refer to page 4-3 for details.

UL/CSA HP ratings
See page 4-4

Electromechanical starters

Direct-on-line starters - Full voltage across the line.

Non reversing three phase

Enclosed without thermal overload relay



M0 P...10 M0 R...10



M1 P...10 M1 R...10



M2 P...10 M2 R...10



M25 P038 10



M25 R038 10



M3 P...10



M3 R...10

new

new

Order code	Maximum operating current ($\leq 440V$)	Qty per pkg	Wt
	[A]	n°	[kg]

Starters with Start and Stop/Reset pushbuttons ②.

M0 P009 10①	10	1	0.667
M0 P012 10①	12	1	0.667

M1 P009 10①	13	1	0.910
M1 P018 10①	18	1	0.910

M2 P025 10①	25	1	1.060
M2 P032 10①	32	1	1.162

M25 P038 10①	38	1	2.360
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M3 P050 10①	50	1	3.110
M3 P065 10①	65	1	3.110
M3 P080 10①	80	1	3.110
M3 P095 10①	95	1	3.110

Starters with Reset pushbutton ②.

M0 R009 10①	10	1	0.627
M0 R012 10①	12	1	0.627

M1 R009 10①	13	1	0.867
M1 R018 10①	18	1	0.867

M2 R025 10①	25	1	1.020
M2 R032 10①	32	1	1.110

M25 R038 10①	38	1	2.320
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M3 R050 10①	50	1	3.070
M3 R065 10①	65	1	3.070
M3 R080 10①	80	1	3.070
M3 R095 10①	95	1	3.070

① Complete order code with coil voltage digit if 50/60Hz or with voltage digit followed by 60 if 60Hz.

Standard voltages are as follows:

- AC 50/60Hz 024 / 048 / 110 / 230 / 400V
- AC 60Hz 024 60 / 048 60 / 120 60 / 220 60 / 230 60 / 460 60 / 575 60 (V).

Example: M0 R009 10 024 1 for direct-on-line starter in M0 type enclosure with Reset button, 9A /AC3 contactor with 24VAC 50/60Hz coil.
M0 P009 10 024 60 1 for direct-on-line starter in M0 type enclosure with Start and Stop/Reset buttons, 9A /AC3 contactor with 24VAC 60Hz coil.

② Protection fuses are to be mounted externally by the user.

Components	Starter enclosure standard supplied	Contactor standard supplied	Thermal relay to purchase separately	Auxiliary contact standard supplied
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M0 PA	BG09 10A	RF9⑤	—	—
M0 PA	BG12 10A	RF9⑤	—	—

M1 PA	BF09 10A	RF38④	—	—
M1 PA	BF18 10A	RF38④	—	—

M2 PA	BF25 10A	RF38④	—	—
M2 PA	BF32 00A	RF38④	—	G418 10

M25 PA	BF38 00A	RF38④	—	G418 10
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M3 PA	BF50 00	RF95 3⑥	—	G418 10
M3 PA	BF65 00	RF95 3⑥	—	G418 10
M3 PA	BF80 00	RF95 3⑥	—	G418 10
M3 PA	BF95 00	RF95 3⑥	—	G418 10

M0 RA	BG09 10A	RF9⑤	—	—
M0 RA	BG12 10A	RF9⑤	—	—

M1 RA	BF09 10A	RF38④	—	—
M1 RA	BF18 10A	RF38④	—	—

M2 RA	BF25 10A	RF38④	—	—
M2 RA	BF32 00A	RF38④	—	G418 10

M25 RA	BF38 00A	RF38④	—	G418 10
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M3 RA	BF50 00	RF95 3⑥	—	G418 10
M3 RA	BF65 00	RF95 3⑥	—	G418 10
M3 RA	BF80 00	RF95 3⑥	—	G418 10
M3 RA	BF95 00	RF95 3⑥	—	G418 10

④ For thermal overload relay selection, refer to pages 3-2 or 3-3.

⑤ For thermal overload relay selection, refer to pages 3-4.

⑥ For thermal overload relay selection, refer to pages 3-4 or 3-5.

Operational characteristics

- Cable entry:
 - M0/M1/M2... - 2 knockouts PG13.5/M20 on enclosure top and bottom
 - M25... - 2 knockouts PG16/M25-PG29/M32 on enclosure top and bottom
 - M3... - Smooth surfaces; can be drilled by customer
- Ambient conditions:
 - Operating temperature: -25...+60°C
 - Storage temperature: -40...+70°C
- Degree of protection: IP65 for all; type 4/4X industrial control environment for M1 / M2 / M25... and M3... UL versions.

Special M3... versions

In addition to standard-indicated versions, cULus certified starters are available up to 52A motor control or 65A general use rating max. Add suffix **UL** to the order code, e.g. M3 P050 10 024UL.

UL/CSA HP ratings

See page 4-4

Certifications and compliance

Certifications obtained: EAC for all; UL Listed for USA and Canada (cULus - File E93602) and CSA certified for Canada and USA (cCSAus - File 94157) as Magnetic Motor Controllers, enclosed type, for all M0-M1-M2P/R... starters and M3P/R50-65...UL types as indicated in "Special M3" above. Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-4-1, UL508, CSA C22.2 n° 14.