

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
	[A]	[A]	le	[kW]	n°	[kg]
Starters with Start and Stop/Reset pushbuttons ②.						
M0 P009 1201	0.6-1	1	0.18-0.25	1	1	0.760
M0 P009 1201V5	0.9-1.5	1.5	0.37	1	1	0.760
M0 P009 1202V3	1.4-2.3	2.3	0.55-0.75	1	1	0.760
M0 P009 12033	2-3.3	3.3	1.1	1	1	0.760
M0 P009 1205	3-5	5	1.5-2.2	1	1	0.760
M0 P009 12075	4.5-7.5	7.5	2.2-3	1	1	0.760
M0 P009 12010	6-10	10	3-4	1	1	0.760
M0 P012 12015	9-15	12	5.5	1	1	0.760
M1 P009 120A4	0.63-1	1	0.25	1	1	1.040
M1 P009 120A5	1-1.6	1.6	0.37-0.55	1	1	1.040
M1 P009 120A6	1.6-2.5	2.5	0.75	1	1	1.040
M1 P009 120A7	2.5-4	4	1.1-1.5	1	1	1.040
M1 P009 120A8	4-6.5	6.5	2.2-3	1	1	1.040
M1 P009 120A9	6.3-10	10	3-4	1	1	1.040
M1 P009 120B0	9-14	13	5.5	1	1	1.040
M1 P018 120B1	13-18	18	7.5	1	1	1.040
M2 P025 120B2	17-23	23	11	1	1	1.220
M2 P025 120B3	20-25	25	11	1	1	1.220
M2 P032 120B4	24-32	32	15	1	1	1.300
M25 P038 120B5	32-38	38	18.5	1	1	2.880
M3 P050 120B6	35-50	50	18.5-22	1	1	3.760
M3 P065 120B7	45-65	65	30	1	1	3.760
M3 P080 120B8	60-82	80	37-45	1	1	3.760
M3 P095 120B9	70-95	95	45	1	1	3.760

Starters with Reset pushbuttons ②.						
M0 R009 1201	0.6-1	1	0.18-0.25	1	1	0.720
M0 R009 1201V5	0.9-1.5	1.5	0.37	1	1	0.720
M0 R009 1202V3	1.4-2.3	2.3	0.55-0.75	1	1	0.720
M0 R009 12033	2-3.3	3.3	1.1	1	1	0.720
M0 R009 1205	3-5	5	1.5-2.2	1	1	0.720
M0 R009 12075	4.5-7.5	7.5	2.2-3	1	1	0.720
M0 R009 12010	6-10	10	3-4	1	1	0.720
M0 R012 12015	9-15	12	5.5	1	1	0.720
M1 R009 120A4	0.63-1	1	0.25	1	1	0.995
M1 R009 120A5	1-1.6	1.6	0.37-0.55	1	1	0.995
M1 R009 120A6	1.6-2.5	2.5	0.75	1	1	0.995
M1 R009 120A7	2.5-4	4	1.1-1.5	1	1	0.995
M1 R009 120A8	4-6.5	6.5	2.2-3	1	1	0.995
M1 R009 120A9	6.3-10	10	3-4	1	1	0.995
M1 R009 120B0	9-14	13	5.5	1	1	0.995
M1 R018 120B1	13-18	18	7.5	1	1	0.995
M2 R025 120B2	17-23	23	11	1	1	1.165
M2 R025 120B3	20-25	25	11	1	1	1.165
M2 R032 120B4	24-32	32	15	1	1	1.260
M25 R038 120B5	32-38	38	18.5	1	1	2.600
M3 R050 120B6	35-50	50	18.5-22	1	1	3.410
M3 R065 120B7	46-65	65	30	1	1	3.410
M3 R080 120B8	60-82	80	37-45	1	1	3.410
M3 R095 120B9	70-95	95	45	1	1	3.410

- 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 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.
- ② 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



new

new

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

Starters with Start and Stop/Reset pushbuttons ②.

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

M1 P009 10 ①	13	1	0.910
M1 P018 10 ①	18	1	0.910

M2 P025 10 ①	25	1	1.060
M2 P032 10 ①	32	1	1.162

M25 P038 10 ①	38	1	2.360
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M3 P050 10 ①	50	1	3.110
M3 P065 10 ①	65	1	3.110
M3 P080 10 ①	80	1	3.110
M3 P095 10 ①	95	1	3.110

Starters with Reset pushbutton ②.

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

M1 R009 10 ①	13	1	0.867
M1 R018 10 ①	18	1	0.867

M2 R025 10 ①	25	1	1.020
M2 R032 10 ①	32	1	1.110

M25 R038 10 ①	38	1	2.320
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M3 R050 10 ①	50	1	3.070
M3 R065 10 ①	65	1	3.070
M3 R080 10 ①	80	1	3.070
M3 R095 10 ①	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
M0 PA	BG09 10A	RF9 ⑤	—	—
M0 PA	BG12 10A	RF9 ⑤	—	—

M1 PA	BF09 10A	RF38 ④	—	—
M1 PA	BF18 10A	RF38 ④	—	—

M2 PA	BF25 10A	RF38 ④	—	—
M2 PA	BF32 00A	RF38 ④	—	G418 10

M25 PA	BF38 00A	RF38 ④	—	G418 10
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M3 PA	BF50 00	RF95 3 ⑥	—	G418 10
M3 PA	BF65 00	RF95 3 ⑥	—	G418 10
M3 PA	BF80 00	RF95 3 ⑥	—	G418 10
M3 PA	BF95 00	RF95 3 ⑥	—	G418 10

M0 RA	BG09 10A	RF9 ⑤	—	—
M0 RA	BG12 10A	RF9 ⑤	—	—

M1 RA	BF09 10A	RF38 ④	—	—
M1 RA	BF18 10A	RF38 ④	—	—

M2 RA	BF25 10A	RF38 ④	—	—
M2 RA	BF32 00A	RF38 ④	—	G418 10

M25 RA	BF38 00A	RF38 ④	—	G418 10
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M3 RA	BF50 00	RF95 3 ⑥	—	G418 10
M3 RA	BF65 00	RF95 3 ⑥	—	G418 10
M3 RA	BF80 00	RF95 3 ⑥	—	G418 10
M3 RA	BF95 00	RF95 3 ⑥	—	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 10 024**UL**.

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.