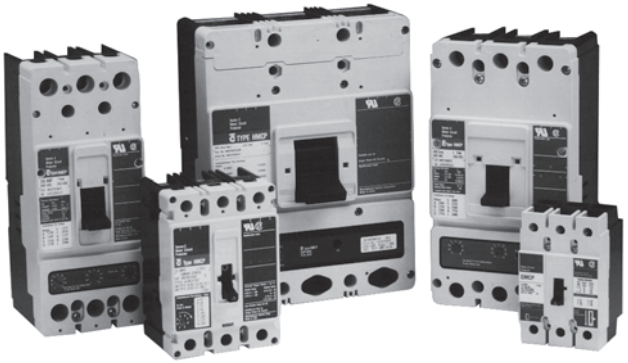
Motor Circuit Protectors



Contents

Motor Circuit Protectors (MCP)

Product Description

Designated as Eaton's Types GMCP and HMCP, the instantaneous-only motor circuit protector (MCP) is available in ratings from 3A to 1200A for motor starter sizes 0 through 8.

An innovative design of internal components allows higher MCP-starter combination interrupting ratings. The MCP is marked to permit proper electrical application within the assigned equipment ratings.

Standards and Certifications

The MCP is designed to comply with the applicable requirements of Underwriters Laboratories Standard UL 489, Canadian Standards Association Standard C22.2 No. 5.1, and International Electrotechnical Commission Recommendations IEC 157-1.

The MCP is a recognized component (UL File E7819) and complies with the applicable requirements of Underwriters Laboratories Standard UL 489. It is also designed to comply with the applicable requirements of Canadian Standards Association Standard C22.2 No. 5.1, International Electrotechnical Commission Recommendations IEC 157-1, and nameplates bear the CE marking.

Listed

Note: Interrupting ratings are dependent on starter it is used with.

Catalog Number Selection

This information is presented only as an aid to understanding catalog numbers. It is not to be used to build catalog numbers for circuit breakers or trip units.

Motor Circuit Protector

HMCP 003 A0 C

Motor Circuit Protective Type
HMCP = 3 poles
HM2P = 2 poles ①
HMCPS = 3 poles

Continuous Ampere Rating
003
007
015
025
030
050
070
100
150
250
400
600
800
1200

Magnetic Trip Range/ NEMA Starter Size
A0 = 9–30/0
C0 = 21–70/0
E0 = 45–150/0
D0 = 40–60/0
H1 = 90–300/1
G2 = 80–120/2
K2 = 50–500/2
J2 = 115–170/2
M2 = 210–700/2
L3 = 160–240/3
R3 = 300–1000/3
T4 = 450–1500/4
U4 = 750–2500/4
A5 = 350–700/5
C5 = 450–900/5
D5 = 500–1000/5
F5 = 625–1250/5
G5 = 750–1500/5
J5 = 875–1750/5
K5 = 1000–2000/5
L5 = 1125–2250/5
W5 = 1250–2500/5
N5 = 1500–3000/5
R5 = 1750–3500/5
X5 = 2000–4000/5
Y5 = 2250–4500/5
L6 = 1800–6000/6 (electronic)
X6 = 500–2500/6 (electronic)
Y6 = 1000–4000/6 (electronic)
X7 = 1600–6400/7 (electronic)
Y8 = 2400–9600/8 (electronic)

Suffix
C = Non-aluminum terminals
W = Without terminals
X = Load terminals only
Y = Line terminals only
S = Stainless steel terminals (150A frame only)
No Suffix: Standard terminals on line and load

Motor Circuit Protector

GMCP 003 A0 C

Motor Circuit Protective Device
GMCP = 3 poles

Continuous Ampere Rating
003
007
015
030
050
060
063

Magnetic Trip Range/NEMA Starter Size
A0 = 15–30/0
C0 = 35–70/0
E0 = 75–150/0
H1 = 150–300/1
K2 = 250–500/2
J2 = 300–600/2
M2 = 320–630/2

Suffix
C = Non-aluminum terminals

Note

① On J- and K-Frame HMCPs only.

F-Frame

600 Vac Maximum, 250 Vdc Maximum

NEMA Starter Size	Cont. Amps	Cam Setting	Motor Full Load Current Amperes (FLA) ①	MCP Trip Setting ②	MCP Catalog Number
0	3	A	0.69–0.91	9	**HMCP003A0C**
		B	0.92–1.0	12	
		C	1.1–1.2	15	
		D	1.3–1.5	18	
		E	1.6–1.7	21	
		F	1.8–1.9	24	
		G	2.0–2.2	27	
		H	2.3–2.5	30	
0	7	A	1.5–2.0	21	**HMCP007C0C**
		B	2.1–2.5	28	
		C	2.6–3.1	35	
		D	3.2–3.6	42	
		E	3.7–3.9	49	
		F	4.3–4.7	56	
		G	4.8–5.2	63	
		H	5.3–5.7	70	
0	15	A	3.4–4.5	45	**HMCP015E0C**
		B	4.6–5.6	60	
		C	5.7–6.8	75	
		D	6.9–7.9	90	
		E	8.0–9.1	105	
		F	9.2–10.3	120	
		G	10.4–11.4	135	
		H	11.5 –12.6	150	
1	30	A	6.9–9.1	90	**HMCP030H1C**
		B	9.2–11.4	120	
		C	11.5–13.7	150	
		D	13.8–16.0	180	
		E	16.1–18.3	210	
		F	18.4–20.6	240	
		G	20.7–22.9	270	
		H	23.0–25.2	300	
2	50	A	11.5–15.2	150	**HMCP050K2C**
		B	15.3–19.1	200	
		C	19.2–22.9	250	
		D	23.0–26.8	300	
		E	26.9–30.6	350	
		F	30.7–4.5	400	
		G	34.6–38.3	450	
		H	38.4–42.1	500	

600 Vac Maximum, 250 Vdc Maximum, continued

NEMA Starter Size	Cont. Amps	Cam Setting	Motor Full Load Current Amperes (FLA) ①	MCP Trip Setting ②	MCP Catalog Number
2	70	A	16.1–21.4	210	**HMCP070M2C**
		B	21.5 –26.8	280	
		C	26.9 –32.2	350	
		D	32.3–37.5	420	
		E	37.6–42.9	490	
		F	43.0–48.3	560	
		G	48.4–53.7	630	
		H	53.8–59.1	700	
3	100	A	23.0–30.6	300	**HMCP100R3C**
		B	30.7–38.3	400	
		C	38.4–46.0	500	
		D	46.1–53.7	600	
		E	53.8 –61.4	700	
		F	61.5 –69.1	800	
		G	69.2–76.8	900	
		H	76.9–84.5	1000	
4	150	A	34.6–46.0	450	**HMCP150T4C**
		B	46.1–57.5	600	
		C	57.6–69.1	750	
		D	69.2–80.6	900	
		D	69.2–80.6	900	
		E	80.7–92.2	1050	
		F	92.3–103.7	1200	
		G	103.8–115.2	1350	
		H	115.3–126.7	1500	
4	150	A	57.0 –75.0	750	**HMCP150U4C**
		B	76.0–95.0	1000	
		C	96.0–114.0	1250	
		D	115.0–130.7	1500	
		E	③	1750	
		F	③	2000	
		G	③	2250	
		H	③	2500	

Notes

① Motor FLA ranges are typical. The corresponding trip setting is at 13 x the minimum FLA value shown. Where a 13 x setting is required for an intermediate FLA value, alternate Cam settings and/or MCP ratings should be used.

② For DC applications, actual trip levels are approximately 40% higher than values shown.

③ Settings above 130 amperes are for special applications. NEC Article 430.110(a) requires the ampere rating of the disconnecting means to be not less than 115% of the motor full load ampere rating.

HMCP 3–100A come with line and load steel body terminals, 3T100FB. HMCP 150A come with line and load steel body terminals, 3T150FB.