

J-Frame

Table 12-193. 600V AC Maximum, 250V DC Maximum

NEMA Starter Size	Cont. Amps	Cam Setting	Motor Full Load Current Amperes ①	MCP Trip Setting ②	MCP Catalog Number ③	Price U.S. \$
4	250	A	27.0 - 30.7	350	HMCP250A5C	1,590.
4		B	30.8 - 33.8	400		
4		C	33.9 - 36.9	440		
5		D	37.0 - 40.3	480		
5		E	40.4 - 43.8	525		
5		F	43.9 - 46.9	570		
5		G	47.0 - 50.7	610		
5		H	50.8 - 53.8	660		
5		I	53.9 - 57.2	700		
5	250	A	34.7 - 38.8	450	HMCP250C5C	1,590.
5		B	38.9 - 43.4	505		
5		C	43.5 - 47.6	565		
5		D	47.7 - 52.2	620		
5		E	52.3 - 56.5	680		
5		F	56.6 - 60.7	735		
5		G	60.8 - 64.9	790		
5		H	65.0 - 69.2	845		
5		I	69.3 - 73.5	900		
5	250	A	38.5 - 43.4	500	HMCP250D5C	1,590.
5		B	43.5 - 48.0	565		
5		C	48.1 - 53.0	625		
5		D	53.1 - 57.6	690		
5		E	57.7 - 62.3	750		
5		F	62.4 - 67.3	810		
5		G	67.4 - 71.9	875		
5		H	72.0 - 76.9	935		
5		I	77.0 - 81.6	1000		
5	250	A	48.1 - 53.8	625	HMCP250F5C	1,590.
5		B	53.9 - 59.9	700		
5		C	60.0 - 66.1	780		
5		D	66.2 - 72.3	860		
5		E	72.4 - 78.4	940		
5		F	78.5 - 83.8	1020		
5		G	83.9 - 89.9	1090		
5		H	90.0 - 96.1	1170		
5		I	96.2 - 102.0	1250		
5	250	A	57.7 - 64.6	750	HMCP250G5C	1,590.
5		B	64.7 - 71.9	840		
5		C	72.0 - 79.2	935		
5		D	79.3 - 86.5	1030		
5		E	86.6 - 93.8	1125		
5		F	93.9 - 101.1	1220		
5		G	101.2 - 108.4	1315		
5		H	108.5 - 115.3	1410		
5		I	115.4 - 122.4	1500		

Table 12-193. 600V AC Maximum, 250V DC Maximum (Continued)

NEMA Starter Size	Cont. Amps	Cam Setting	Motor Full Load Current Amperes ①	MCP Trip Setting ②	MCP Catalog Number ③	Price U.S. \$
5	250	A	67.4 - 75.3	875	HMCP250J5C	1,590.
5		B	75.4 - 83.8	980		
5		C	83.9 - 92.3	1090		
5		D	92.4 - 100.7	1200		
5		E	100.8 - 109.2	1310		
5		F	109.3 - 117.6	1420		
5		G	117.7 - 126.1	1530		
5		H	126.2 - 134.6	1640		
5		I	134.7 - 142.8	1750		
5	250	A	77.0 - 86.6	1000	HMCP250K5C	1,590.
5		B	86.6 - 96.1	1125		
5		C	96.2 - 105.7	1250		
5		D	105.8 - 115.3	1375		
5		E	115.4 - 124.9	1500		
5		F	125.0 - 134.6	1625		
5		G	134.7 - 144.2	1750		
5		H	144.3 - 153.8	1875		
5		I	153.9 - 163.3	2000		
5	250	A	86.6 - 97.3	1125	HMCP250L5C	1,590.
5		B	97.4 - 108.4	1265		
5		C	108.5 - 118.8	1410		
5		D	118.9 - 129.9	1545		
5		E	130.0 - 140.7	1690		
5		F	140.8 - 151.5	1830		
5		G	151.6 - 162.3	1970		
5		H	162.4 - 173.0	2110		
5		I	173.1 - 183.6	2250		
5	250	A	96.2 - 108.0	1250	HMCP250W5C	1,590.
5		B	108.1 - 119.9	1405		
5		C	120.0 - 132.3	1560		
5		D	132.4 - 144.2	1720		
5		E	144.3 - 156.1	1875		
5		F	156.2 - 168.0	2030		
5		G	168.1 - 179.9	2185		
5		H	180.0 - 192.3	2340		
5		I	192.4 - 204.0	2500		

- ① Motor FLA ranges are typical. The corresponding trip setting is at 13 times the minimum FLA value shown. Where a 13 times 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 Three-pole Catalog Numbers shown. Two-pole Catalog Numbers begin with **HM2P** in place of **HMCP**.

Note: Instruction Leaflet/FRED Number 29C402

Note: All HMCP and HM2P 250A come with line and load steel body terminals, T250KB.

Contents

Description	Page
Motor Circuit Protectors	
Product Description	12-116
Product Selection	12-117

Motor Circuit Breakers

1



Motor Circuit Protectors

Product Description

Designated as the Cutler-Hammer Types GMCP, HMCPE and HMCP, the instantaneous-only Motor Circuit Protector (MCP) is available in ratings from 3A to 1200A for motor starter sizes 0 through 8. The MCP is designed to comply with the applicable requirements of Underwriters Laboratories Standard UL489, Canadian Standards Association Standard C22.2 No. 5.1, and International Electrotechnical Commission Recommendations IEC 157-1.

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.

The MCP is a recognized component (UL File E7819) and complies with the applicable requirements of Underwriters Laboratories Standard UL489. 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.

Note: Interrupting ratings are dependent on starter it is used with. See FRED 278.

Product 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.

Table 12-181. Motor Circuit Protector Catalog Numbering System

HMCP 003 A0 C			
Motor Circuit Protective Type	Continuous Ampere Rating	Magnetic Trip Range/ NEMA Starter Size	Suffix
HMCP = 3 Poles HMCPE = 3 Poles HM2P = 2 Poles ① HMCPS = 3 Poles	003 007 015 025 030 050 070 100 150 250 400 600 800 1200	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 = 150 – 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)	C = Non-aluminum Terminals W = W/O Terminals X = Load Terminals Only Y = Line Terminals Only S = Stainless Steel Terminals (150A Frame Only) No Suffix: Standard Terminals on Line and Load

12

① On J- and K-Frame HMCPs only.

Table 12-182. Motor Circuit Protector Catalog Numbering System

GMCP 003 A0 C			
Motor Circuit Protective Device	Continuous Ampere Rating	Magnetic Trip Range/NEMA Starter Size	Suffix
GMCP = 3 Poles HMCPE = 3 Poles	GMCP 003 007 015 030 050 060 063 HMCPE 003 007 015 030 050 070 100 100	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 A0 = 9 – 33/0 C0 = 21 – 77/0 E0 = 45 – 165/0 H1 = 90 – 330/1 K2 = 150 – 550/2 M2 = 210 – 770/2 R3 = 300 – 1100/2 T3 = 500 – 1500/2	C = Non-aluminum Terminals