



Series C Motor Circuit Protectors

General Information

Designated as the Cutler-Hammer Types GMCP, HMCP, the Series C instantaneous-only motor circuit protector (MCP) is available in ratings from 3A to 600A for motor starter sizes 0 through 6. The MCP is designed to comply with the applicable requirements of Underwriters Laboratories, Inc. Standard UL489, Canadian Standards Association Standard C22.2 No. 5, and International Electrotechnical Commission Recommendations IEC 157-1.

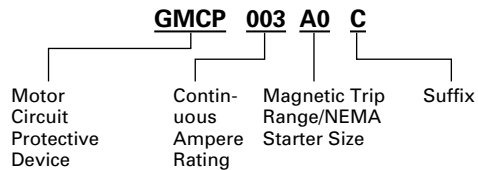
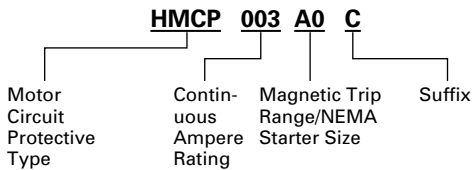
An innovative design of internal components allows higher MCP-starter combination interrupting ratings. The MCP is marked to permit proper electrical application within the assigned equipment ratings.

The MCP is a recognized component (UL File E7819) and complies with the applicable requirements of Underwriters Laboratories, Inc. Standard UL489. It is also designed to comply with the applicable requirements of Canadian Standards Association Standard C22.2 No. 5, International Electrotechnical Commission Recommendations IEC 157-1, and nameplates bear the CE marking.

Catalog Numbering System

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 Catalog Number



Motor Circuit Protective Type	Continuous Ampere Rating	Magnetic Trip Range/NEMA Starter Size	Suffix
HMCP: 3 Poles	003	A0: 9-30/0	C: Non-Aluminum Terminals
HM2P: 2 Poles ^①	007	C0: 21-70/0	W: W/O Terminals
HMCPs: 3 Poles	015	E0: 45-150/0	X: Load Terminals Only
	025	D0: 40-60/0	Y: Line Terminals Only
	030	H1: 90-300/1	S: Stainless Steel Terminals (150A Frame Only)
	050	G2: 80-120/2	No Suffix: Standard Terminals on Line and Load
	070	K2: 150-500/2	
	100	J2: 115-170/2	
	150	M2: 210-700/2	
	250	L3: 160-240/3	
	400	R3: 300-1000/3	
	600	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	
		L6: 1800-6000/6 Electronic)	

Motor Circuit Protective Device	Continuous Ampere Rating	Magnetic Trip Range/NEMA Starter Size	Suffix
GMCP: 3 Poles	003	A0: 15-30/0	C: Non-Aluminum Terminals
	007	C0: 35-70/0	
	015	E0: 75-150/0	
	030	H1: 150-300/1	
	050	K2: 250-500/2	
	060	J2: 300-600/2	
	063	M2: 320-630/2	

① On J- and K-Frame HMCPs only.

J-Frame

600 Vac Maximum, 250 Vdc Maximum

MCP Catalog Number ^①	NEMA Starter Size	Continuous Amperes	Cam Setting	Motor Full Load Center Amperes ^②	MCP Trip Setting ^③
HMCP250A5C	4	250	A	27.0 - 30.7	350
	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
HMCP250C5C	5	250	A	34.7 - 38.8	450
	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
HMCP250D5C	5	250	A	38.5 - 43.4	500
	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
HMCP250F5C	5	250	A	48.1 - 53.8	625
	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
HMCP250G5C	5	250	A	57.7 - 64.6	750
	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

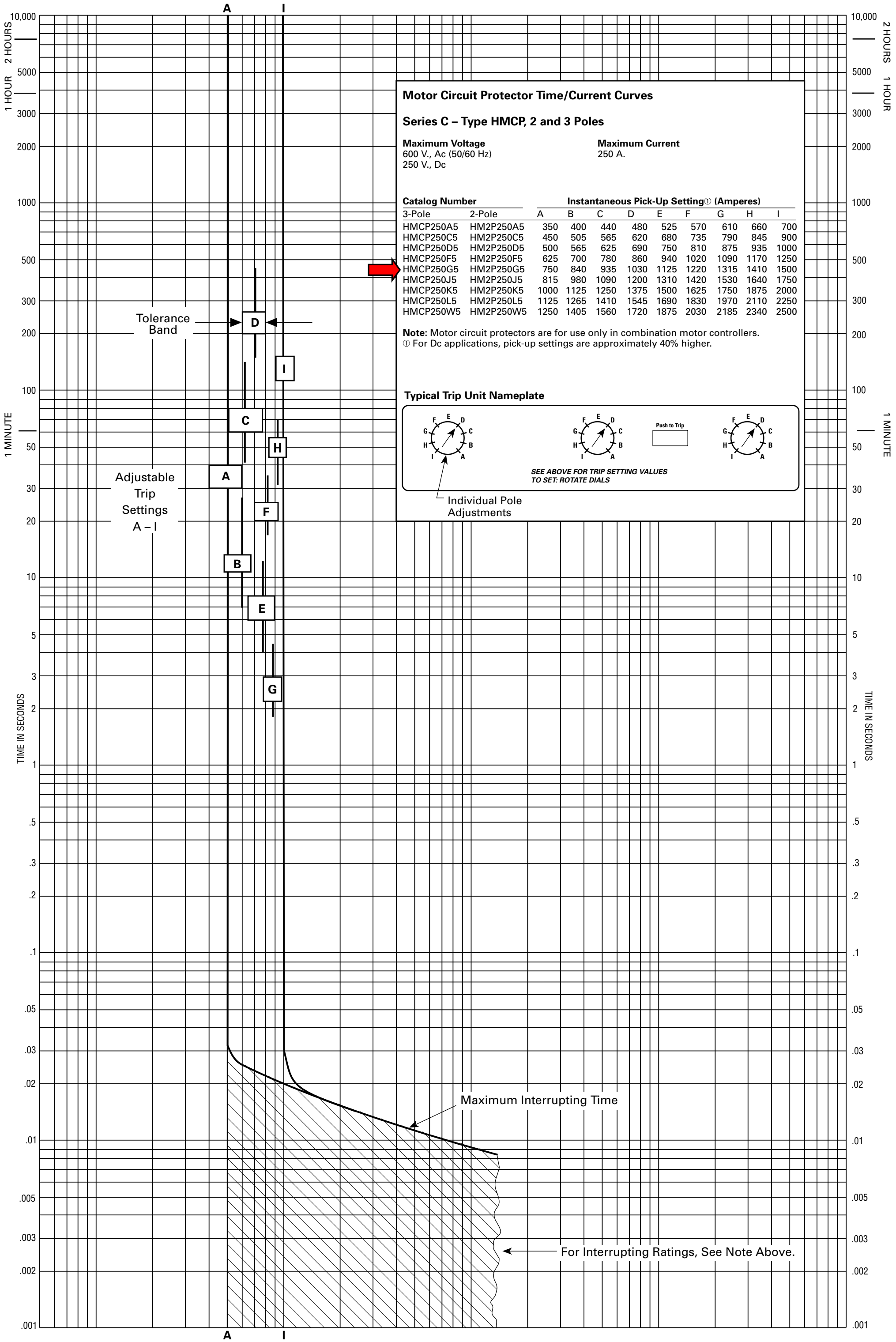


MCP Catalog Number ^①	NEMA Starter Size	Continuous Amperes	Cam Setting	Motor Full Load Center Amperes ^②	MCP Trip Setting ^③
HMCP250J5C	5	250	A	67.4 - 75.3	875
	5		B	75.4 - 83.8	980
	5		C	83.9 - 92.3	1090
	5		D	92.4 - 100.7	1200
	5		E	100.8 - 109.2	1310
	5		F	109.3 - 117.6	1420
	5		G	117.7 - 126.1	1530
	5		H	126.2 - 134.6	1640
	5		I	134.7 - 142.8	1750
HMCP250K5C	5	250	A	77.0 - 86.6	1000
	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
HMCP250L5C	5	250	A	86.6 - 97.3	1125
	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
HMCP250W5C	5	250	A	96.2 - 108.0	1250
	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

Instruction Leaflet/FRED Number 29C402

- ① Three-pole catalog numbers shown. Two-pole catalog numbers begin with "HM2P" in place of "HMCP."
- ② 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.
- ③ For Dc applications, actual trip levels are approximately 40% higher than values shown.

TRIP CURRENT IN AMPERES PER CHART



Motor Circuit Protector Time/Current Curves

Series C - Type HMCP, 2 and 3 Poles

Maximum Voltage
600 V., Ac (50/60 Hz)
250 V., Dc

Maximum Current
250 A.

Catalog Number		Instantaneous Pick-Up Setting ^① (Amperes)									
		A	B	C	D	E	F	G	H	I	
HMCP250A5	HM2P250A5	350	400	440	480	525	570	610	660	700	
HMCP250C5	HM2P250C5	450	505	565	620	680	735	790	845	900	
HMCP250D5	HM2P250D5	500	565	625	690	750	810	875	935	1000	
HMCP250F5	HM2P250F5	625	700	780	860	940	1020	1090	1170	1250	
HMCP250G5	HM2P250G5	750	840	935	1030	1125	1220	1315	1410	1500	
HMCP250J5	HM2P250J5	815	980	1090	1200	1310	1420	1530	1640	1750	
HMCP250K5	HM2P250K5	1000	1125	1250	1375	1500	1625	1750	1875	2000	
HMCP250L5	HM2P250L5	1125	1265	1410	1545	1690	1830	1970	2110	2250	
HMCP250W5	HM2P250W5	1250	1405	1560	1720	1875	2030	2185	2340	2500	

Note: Motor circuit protectors are for use only in combination motor controllers.
^① For Dc applications, pick-up settings are approximately 40% higher.

Typical Trip Unit Nameplate

SEE ABOVE FOR TRIP SETTING VALUES TO SET: ROTATE DIALS

Individual Pole Adjustments