

# Product Details and Certifications

**Cross Reference RA Part Number: PN-D12889**

**Product: 140MG-H8P-B70**

Description: 140MG - Motor Circuit Protectors, H frame, 35..65 kA at 480V, MCP (magnetic only), Rated Current 7 A



Representative Photo Only (actual product may vary based on configuration selections)

## SYSTEM DATA

Supply Voltage	480V 60Hz / 600V 60 Hz
Interrupt Rating[kA] ①	65 kA at 480V / 25kA at 600V

## CIRCUIT BREAKER DATA

Bulletin Number	140MG - Motor Circuit Protectors
Number of Poles	3 Poles
Frame Size	H frame
Rated Current(A)	7 A
Protection	MCP (magnetic only)

## MANUFACTURING

Assembly	Factory Assembled
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## INTERNAL ACCESSORIES

Auxiliaries(AX), Alarm (AL), Auxiliary/Alarm Combination (AX/AL), Right Side Mounting	N/A
Voltage for Aux Alarm Combination	N/A

① The interrupting rating for MCPs is dependent upon the controller used. Please contact your local Rockwell Automation sales office or Allen-Bradley distributor for further information.

# Motor Circuit Protectors

## Catalog Number Explanation — 125A, H-Frame & 250 A, J-Frame

### Complete Motor Circuit Protector Assemblies with Factory-Installed Options

Examples given in this section are not intended to be used for product selection. Use these configurations only to select all factory-installed options for shunt trips, undervoltage release units, auxiliary contacts, and alarm contacts. Use the codes from Table f to add on to the motor circuit protector cat. no. selected on the previous pages to form a complete cat. no. for a complete assembly with factory-installed options.



140MG - H 8 P - B70
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*a*
*b*
*c*
*d*
*e*
*f*

*a*

Bulletin No.	
Code	Description
140MG	Global Motor Circuit Protector

*d*

Protection Type	
Code	Description
P	Adjustable magnetic only (less than 13 x I <sub>n</sub> )

*b*

Frame/Rating	
Code	Description
H	125 A
J	250 A

*e*

Current Range	
Code	Description
B	e.g., B30 = 3 A
C	e.g., C30 = 30 A
D	e.g., D20 = 200 A

*c*

Interrupting Rating/Breaking Capacity (based on I <sub>c</sub> at 480V)	
Code	Description
8	High break

*f*

Factory-Installed Internal Options ♦	
Shunt Trip and Undervoltage Release Units	
Code	Description
SJ	Shunt Trip, 24...30V AC/DC
SK	Shunt Trip, 48...60V AC/DC
SD	Shunt Trip, 110...127V AC; 110...125V DC
SA	Shunt Trip, 220...240V AC; 220...250V DC
SB	Shunt Trip, 380...440V AC
SC	Shunt Trip, 480...525V AC
UJ	Undervoltage Release, 24...30V AC/DC
UR	Undervoltage Release, 48V AC/DC
UD	Undervoltage Release, 110...127V AC; 110...125V DC
UA	Undervoltage Release, 220...240V AC; 220...250V DC
UB	Undervoltage Release, 380...440V AC
UC	Undervoltage Release, 480...525V AC
No Digit	No Selection
Auxiliary and Alarm Contacts, Trip Units	
Code	Description
KA	1 Aux. Contact, 250V
TA	1 Alarm Contact, 250V
AA	1 Aux., 1 Alarm Contact, 250V
BA	2 Aux., 1 Alarm Contact, 250V
DA	1 Trip Unit Alarm Contact, 250V
FB	2 Aux. Contacts, 400V
AB	1 Aux., 1 Alarm Contact, 400V
AJ	1 Aux., 1 Alarm Contact, 24V
DJ	1 Trip Unit Alarm Contact, 24V

♦ Select up to two internal options: 1 for left side mounting (shunt trip or undervoltage release), 1 for right (auxiliary or alarm contact). Consult your local Rockwell automation sales office or Allen-Bradley distributor for further assistance.

## MCP Performance Characteristics



		G-Frame	H-Frame	I-Frame	
Frame Size	[A]	125	125	225	
Poles		3	3	3	
Instantaneous Trip Settings	[A]	3...125	3...125	100...150	
Rated Insulation Voltage, U, IEC	[V]	800	1000	800	
NEMA, UL, CSA	UL 489 Instantaneous Trip Circuit Breaker (Magnetic Only) Max SCCR. <b>Combination Controller Rating</b> ②				
	480V AC	[kA]	65	65	35
	600/347V AC	[kA]	25	–	10
	600V AC	[kA]	–	25	
IEC 60947-2 GB14048.2	Rated Ultimate Short-circuit Breaking Capacity, $I_{cu}$				
	220-230V AC ①	[kA]	65 ⑤	100 ⑥	85
	400-415V AC	[kA]	36 ⑤	70 ⑥	50
	440V AC ①	[kA]	36 ⑤	65 ⑥	40
	500V AC	[kA]	30 ⑤	50 ⑥	30
	525V AC	[kA]	22 ⑤	30 ⑥	20
	690V AC	[kA]	6 ⑤	15 ⑥	6
	(DC) 250V – 2 Poles in Series	[kA]	36 ⑤	36 ⑥	50
	(DC) 500V – 3 Poles in Series	[kA]	–	36 ⑥	50
	Rated Service Short-circuit Breaking Capacity, $I_{cs}$				
	220-230V AC ①	[kA]	75% ⑤	100% ⑥	50%
	400-415V AC	[kA]	100% ⑤	100% ⑥	50% (27)
	440V AC ①	[kA]	50% ⑤	100% ⑥	50% (27)
	500V AC	[kA]	50% ⑤	100% ⑥	50%
	525V AC	[kA]	50% ⑤	100% ⑥	50%
	690V AC	[kA]	75% ⑤	100% ⑥	50%
	(DC) 250V – 2 Poles in Series	[kA]	100% ⑤	100% ⑥	75%
(DC) 500V – 3 Poles in Series	[kA]	–	100% ⑥	75%	
Mechanical Life	[No. of Operations]	25000	25000	25000	
	[Operations per Hour]	240	240	240	
Electrical Life @ 415V (AC)	[No. of Operations]	8000	8000	8000	
	[Operations per Hour]	120	120	120	
Wire Temperature Rating ④	[°C]	Cu 75 °C	Al or Cu 75 °C	Al or Cu 75 °C	
Ambient Temperature w/out derating	°F [°C]	104 °F [40 °C]	104 °F [40 °C]	104 °F [40 °C]	
Operating Temperature	°F [°C]	-13...+158 °F [-25...+70 °C]	-13...+158 °F [-25...+70 °C]	-13...+158 °F [-25...+70 °C]	
Storage Temperature	°F [°C]	-40...158 °F [-40...+70 °C]	-40...158 °F [-40...+70 °C]	-40...158 °F [-40...+70 °C]	
Dimensions	[mm]	76.2x70x130	90x82.5x130	105x70x150	
[Width/Depth/Height]	[inches]	3x2.76x5.12	3.54x3.25x5.12	4.13x2.76x5.9	
Weight (approximate)	lb [kg]	2.4 [1.1]	2.6 [1.2]	3.7 [1.7]	

① These ratings have not been tested for the CCC listing.

② The Short Circuit value is based on a combined of MCP, motor contactor and overload relay as a UL60497-4-1 Type D Combination Motor Controller. Refer to the AB Global Short Circuit Current Ratings Tables, or contact your local Allen Bradley Representative.

③ Adjustable between 1...10x motor FLA. Value based on 1200A rating plug.

④ Wire temperature Rating is determined by testing the Motor Circuit Protector under full load current with the conductors sized for 75 °C.

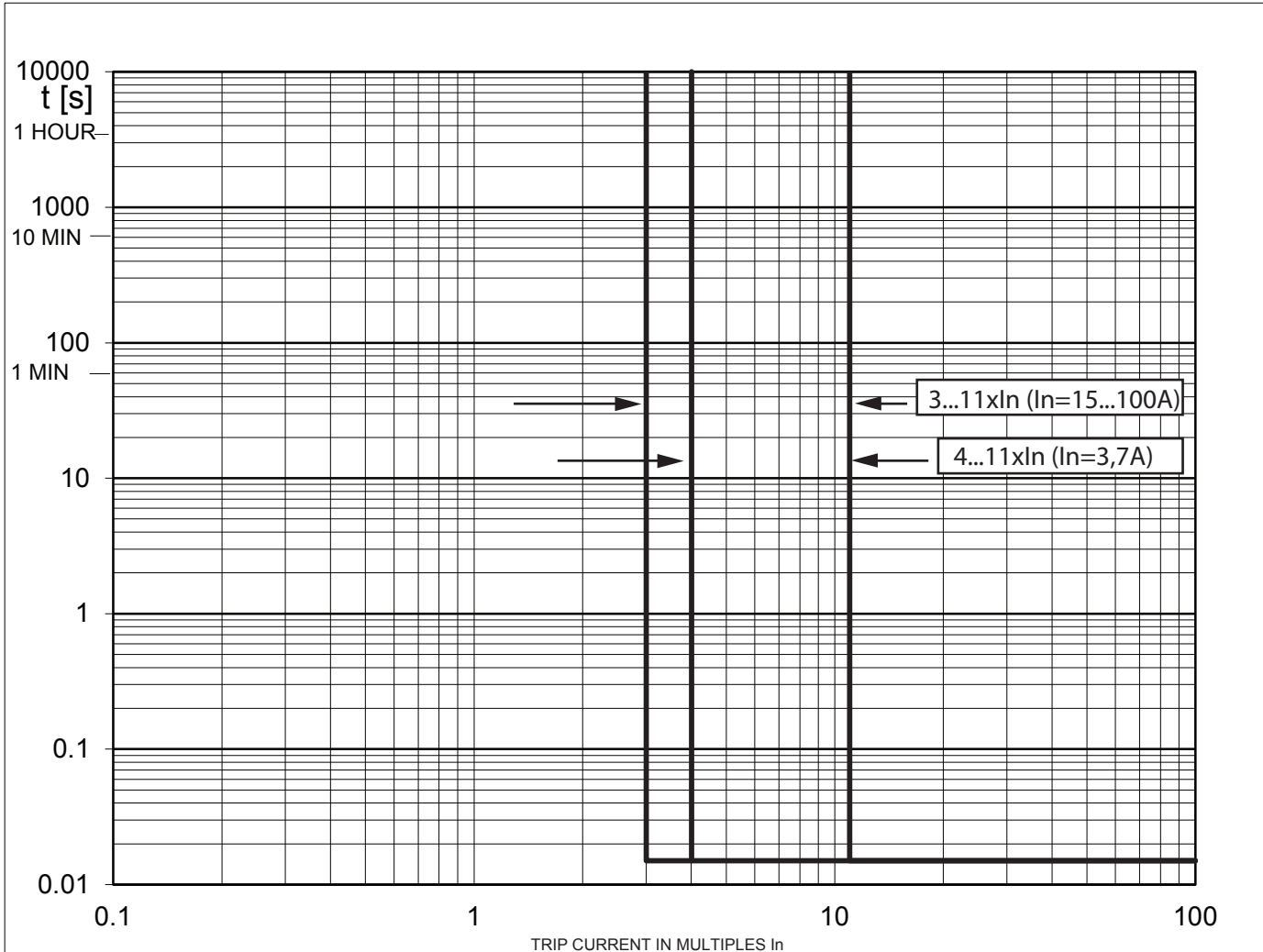
## 3A-7A, H Frame

		230V	415V	440V	500-525V	690V	250V DC	500V DC
⑥	$I_{cu}$ [kA]	5	5	3	3	3	5	5
	$I_{cs}$ [kA]	100%	100%	100%	100%	100%	100%	100%



## Time-Current Curves for Bulletin 140MG-H Motor Circuit Protectors

## Maximum Current 3...100 A.



### Instantaneous Pick-Up Setting (Amperes)

CATALOG NUMBER	A	B	C	D	E	F	G	H	I
140MG-H8P-B30	12	15	17	20	23	25	28	30	33
140MG-H8P-B70	28	34	40	46	53	59	65	71	77
140MG-H8P-C15	45	60	75	90	105	120	135	150	165
140MG-H8P-C30	90	120	150	180	210	240	270	300	330
140MG-H8P-C50	150	200	250	300	350	400	450	500	550
140MG-H8P-C70	210	280	350	420	490	560	630	700	770
140MG-H8P-C80	240	320	400	480	560	640	720	800	880
140MG-H8P-D10	300	400	500	600	700	800	900	1000	1100

### Typical Trip Unit Nameplate



I3 (A)									
A	B	C	D	E	F	G	H	I	
300	400	500	600	700	800	900	1000	1100	

SEE ABOVE FOR TRIP  
SETTING VALUES

Note: Motor circuit protectors are for use only in combination controllers.