

CUTLER-HAMMER QUALITY AT AUTOMATIONDIRECT PRICES

Eaton
Cutler-Hammer



WMS Series Supplementary Protectors

WMS Supplementary Protectors are UL 1077 recognized for applications where branch circuit protection is not required or is already provided. They are thermal magnetic and protect against short circuit and overload conditions.

These DIN rail mounted supplementary protectors come in one and three pole configurations and are available in two trip curves.

The B curve trips at three to five times the rated current and is typically used for PLC's, industrial computers, and low inrush type loads.

The D curve trips at 10 to 20 times the rated current for higher inrush inductive loads like transformers and motors. Shunt trips are available for remotely tripping the protector with an external voltage from a control system or alarm device.

A padlocking feature is also available for preventing unauthorized operation. Maintenance personnel can safely work on protected equipment without electrical safety concerns.



Third party Certification and marking

- IEC 898
- UL1077
- CSA 22.2

Trip curves

- B [3-5 I_n]
- D [10-20 I_n]

Full line of field fit accessories

- Auxiliary switch
- Alarm/Auxiliary Switch
- Shunt trip
- Padlock provision

Ring Tung Connection

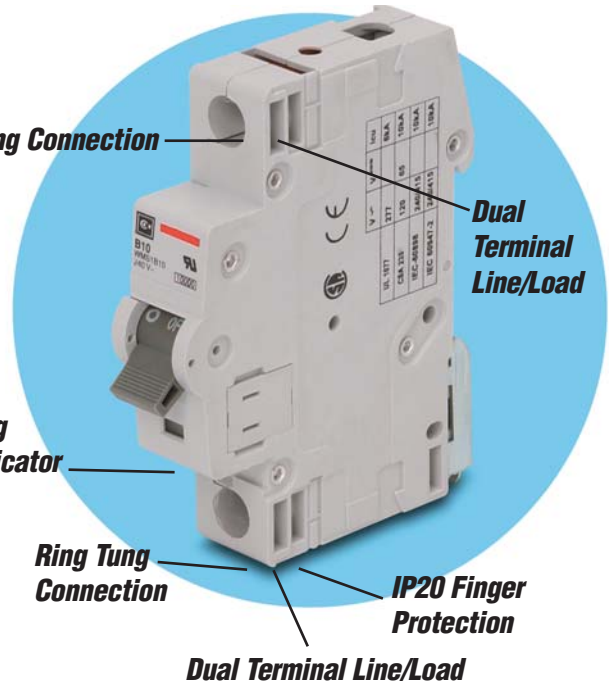
Dual Terminal Line/Load

Flag Indicator

Ring Tung Connection

IP20 Finger Protection

Dual Terminal Line/Load



POWER



WMS SUPPLEMENTARY PROTECTORS



Overview

The Cutler-Hammer WMS Supplementary Protectors are used to provide overcurrent protection where branch protection (For example, UL 489 MCCB) is already provided or not required. The units can be installed as a component within, or part of, an appliance or a piece of electrical equipment. Supplementary Protectors are ideal replacements for fuses that are applied as a supplementary protector, i.e. in addition to branch protection (if required). They are 35mm DIN-rail mountable, utilizing metallic “extra strength” spring clips. These are standard breakers, recognized by UL and CSA under UL 1077 and CSA 22.2. They are CE marked in accordance with Low Voltage Directive (LVD) (73/23/EEC).

Application

Cutler-Hammer WMS Supplementary Protectors by Eaton Corporation are ideal for providing protection in many applications, including:

- Motor control circuits
- Control power transformers
- Relays
- Contactor coils
- PLC I/O points
- Lighting circuits

Features, Benefits and Functions

- Current limiting design provides fast short circuit interruption that reduces the let-through energy which can damage the circuit.
- Thermal magnetic overcurrent protection:
 - Two levels, categorized by B and D curves
 - In direct relation to continuous rating of device
 - B Curve - 3 to 5 X rated current**
 - Suited for applications where maximum protection is required for control circuits from low level short circuit faults that could damage the wiring.
 - D Curve - 10 to 20 X rated current**
 - Provides a magnetic range to allow for higher inrush levels during startup, that are usually seen with motors, transformers and other high inductive systems.
- Color coded status indicator window – Red = ON or Green = OFF
- IP20 finger protection
- Provision for dual connection– line and load:
 - Cable direct into terminal
 - Cable utilizing Ring Tung connector
- 35mm DIN-rail mountable, utilizing “extra strength” spring clip

Standards and Certifications

- UL recognized under UL 1077
- CSA 22.2
- IEC 898
- IEC 60947-2

Product Specification

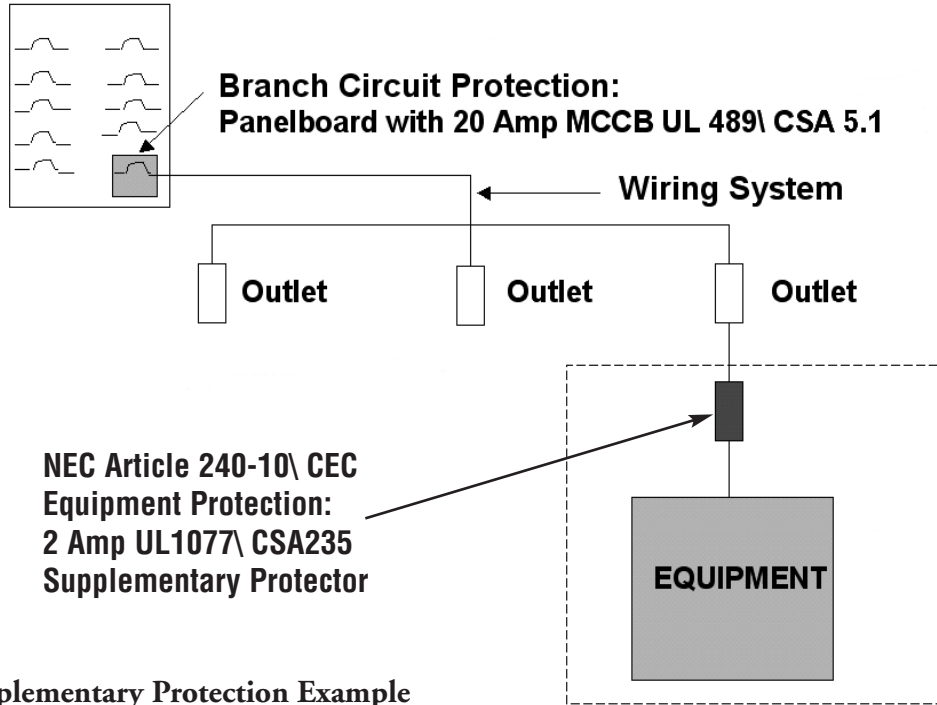
The WMS Supplementary Protector is a dual-rated product for both AC and DC supplies, in accordance with UL 1077, CSA 22.2 and IEC 898 standards and is marked with CE in accordance with the Low Voltage Directive. With this dual standard product, the customer can include it in their design, knowing that in the vast majority of cases wherever their equipment is used, the product is in line with the local UL, CSA or IEC (European) requirements.

The Supplementary Protector is designed to be applied in conjunction with a branch protector (if branch protection is required) and can be a replacement for similarly applied fuses. Its advantage over fuses is that it is resettable and the device’s status is easily and clearly identified by the position of the handle and the flag indicator.

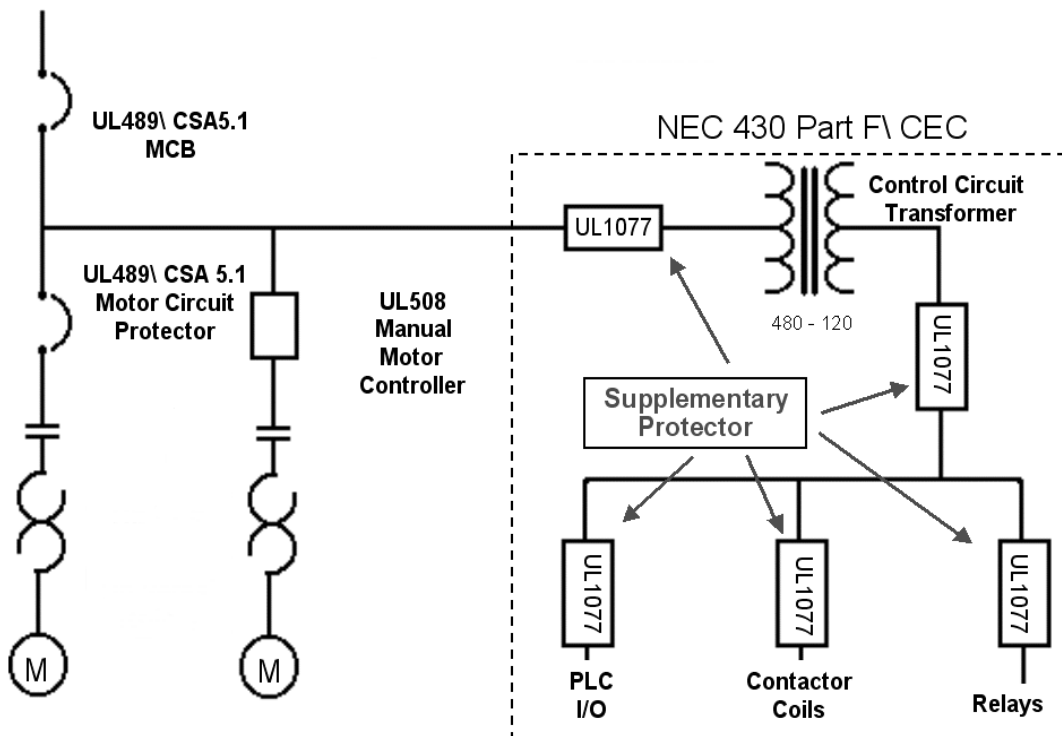
In addition, you can select a device that provides maximum reliability and accuracy to fit various applications due to the availability of a wide range of current ratings from 2 to 60 amperes and two overcurrent characteristic curves, B and D. With 35mm DIN-rail mounting and “Quick 3 Step” field mountable accessories, it is easy for the customer to select and apply Supplementary Protectors.

WMS SUPPLEMENTARY PROTECTORS

What is a Supplementary Protector?



Supplementary Protection Example





WMS SERIES SELECTION GUIDE



Single-Pole

WMS - Single-Pole Selection Guide					
Ampere Rating	B Curve Part Number	Price	D Curve Part Number	Price	
2	N/A	N/A	WMS1D02		
3	N/A	N/A	WMS1D03		
4	N/A	N/A	WMS1D04		
5	N/A	N/A	WMS1D05		
6	WMS1B06	check	WMS1D06	check	
7	WMS1B07		WMS1D07		
8	WMS1B08		WMS1D08		
10	WMS1B10		WMS1D10		
13	WMS1B13		WMS1D13		
15	WMS1B15		WMS1D15		
16	WMS1B16		WMS1D16		
20	WMS1B20		WMS1D20		
25	WMS1B25		WMS1D25		
30	WMS1B30		WMS1D30		
32	WMS1B32		WMS1D32		
40	WMS1B40		WMS1D40		
50	WMS1B50		N/A		N/A
60	WMS1B60		N/A		N/A



Three-Pole

WMS - Triple-Pole Selection Guide					
Ampere Rating	B Curve Part Number	Price	D Curve Part Number	Price	
2	N/A	N/A	WMS3D02		
3	N/A	N/A	WMS3D03		
4	N/A	N/A	WMS3D04		
5	N/A	N/A	WMS3D05		
6	WMS3B06	check	WMS3D06	check	
8	N/A		WMS3D08		
10	WMS3B10		WMS3D10		
15	WMS3B15		WMS3D15		
16	N/A		WMS3D16		
20	WMS3B20		WMS3D20		
25	WMS3B25		WMS3D25		
30	WMS3B30		WMS3D30		
32	N/A		WMS3D32		
40	WMS3B40		WMS3D40		
50	WMS3B50		N/A		N/A
60	WMS3B60		N/A		N/A

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WMS SERIES 2-POLE SUPPLEMENTARY PROTECTOR

NEW!



Two-Pole

WMS - Two-Pole Selection Guide			
Ampere Rating	B Curve Part Number		D Curve Part Number
2	N/A		WMS2D02
3	N/A		WMS2D03
4	N/A		WMS2D04
5	N/A		WMS2D05
6	WMS2B06		WMS2D06
7	WMS2B07		WMS2D07
8	WMS2B08		WMS2D08
10	WMS2B10		WMS2D10
13	WMS2B13		WMS2D13
15	WMS2B15		WMS2D15
16	WMS2B16		WMS2D16
20	WMS2B20		WMS2D20
25	WMS2B25		WMS2D25
30	WMS2B30		WMS2D30
32	WMS2B32		WMS2D32
40	WMS2B40		WMS2D40
50	WMS2B50		N/A
60	WMS2B60		N/A

UL/CSA Ratings					
Ampere Rating	Poles	Curve	Voltage (Maximum)	Short Circuit Capacity (A)	
				UL 1077	CSA 235
6 - 60	1	B	120VAC	10,000	10,000
2 - 40	1	D			
6 - 60	2,3	B	240VAC	10,000	10,000
2 - 40	2,3	D			
6 - 60	1	B	277VAC	6,000	6,000
2 - 40	1	D			
6 - 60	2,3	B	277/480VAC	5,000	5,000
2 - 40	2,3	D			
2 - 60	1	B, D	65VDC	10,000	10,000
2 - 60	2	B,D	130VDC	10,000	10,000

IEC Ratings				
Ampere Rating	Curve	Volts AC	Short Circuit Capacity (A)	
			IEC 898	IEC 947-2
2 - 5	D	240/415	10,000	10,000
6 - 40	B, D			
50 - 60	B			

Cable Size and Torque Setting - WMS				
Ampere Rating	Cable Size		Tightening Torque	
	mm ²	AWG	Nm	lb-in
2 - 60	1 to 25	14 to 6	2.8	24.8

WMS SERIES ACCESSORY SELECTION GUIDE



Alarm Switch



Auxiliary Switch



Shunt Trip



Identification Labels



Lockout Padlock



Lockout Attachment

WMS Accessories Selection Guide				
Part Number	Description	Number of Contacts	Module Width	Price
WAL1A1B	Alarm Switch	1 N.O./1 N.C.	1/2"	check
WAX1A1B	Auxiliary Switch	1 N.O./1 N.C.	1/2"	check

WMS Accessories Selection Guide				
Part Number	Description	Trip Voltage	Module Width	Price
WST220A	Shunt Trip	110/220VAC	1"	check
WST415A	Shunt Trip	240/415VAC	1"	check
WST48D	Shunt Trip	12/48VDC	1"	check

WMS Accessories Selection Guide		
Part Number	Description	Price
WIDL	Identification Labels - 120/package	check
WPKEY	Lockout Padlock with 3 Keys ¹	check
WPLK	Lockout Attachment	check

¹ Additional keys are not available for this lock.

POWER



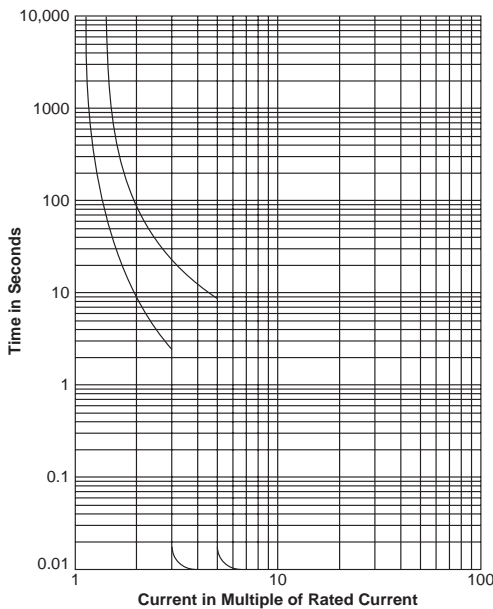
WMS SERIES TECHNICAL DATA

UL/CSA Ratings					
Ampere Rating	Poles	Curve	Voltage	Short Circuit Capacity (A)	
				UL 1077	CSA 235
6 - 60	1	B	120VAC	10,000	10,000
2 - 40	1	D			
6 - 60	3	B	240VAC		
2 - 40	3	D			
6 - 60	1	B	277VAC	6,000	6,000
2 - 40	1	D	277/480VAC	5,000	5,000
6 - 60	3	B			
2 - 40	3	D	65VDC	10,000	10,000
2 - 60	1	B, D			

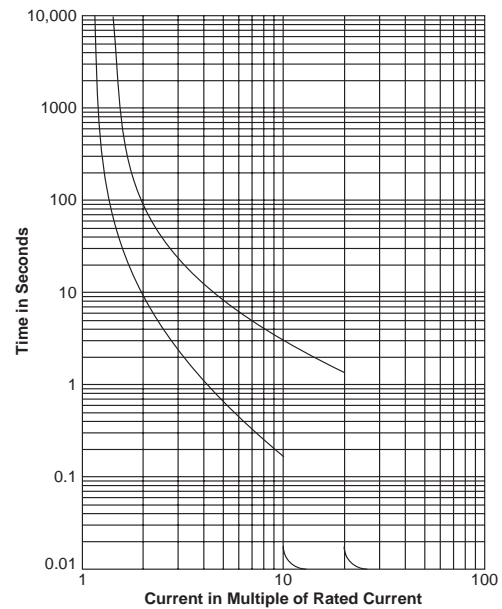
IEC Ratings				
Ampere Rating	Curve	Volts AC	Short Circuit Capacity (A)	
			IEC 898	IEC 947-2
2 - 5	D	240/415	10,000	10,000
6 - 40	B, D			
50 - 60	B			

Cable Size and Torque Setting - WMS				
Ampere Rating	Cable Size		Tightening Torque	
	mm ²	AWG	Nm	lb-in
2 - 60	1 to 25	14 to 6	2.8	24.8

Curve B - Time/Current Characteristic



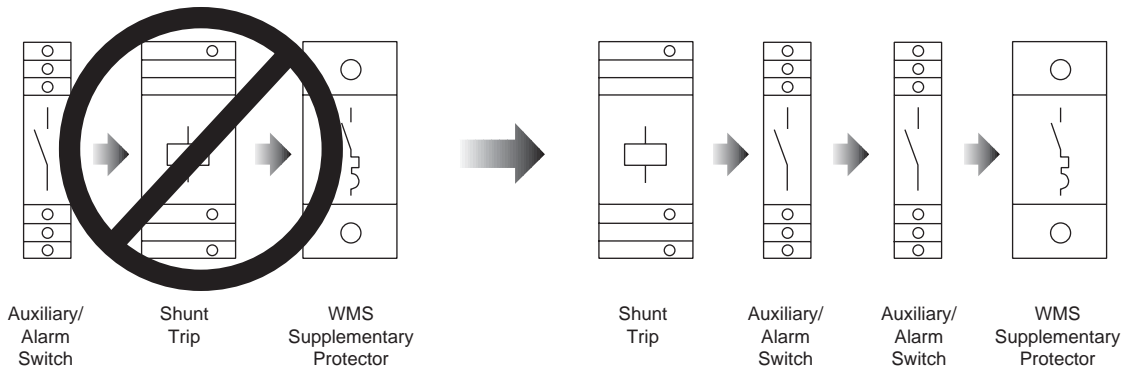
Curve D - Time/Current Characteristic



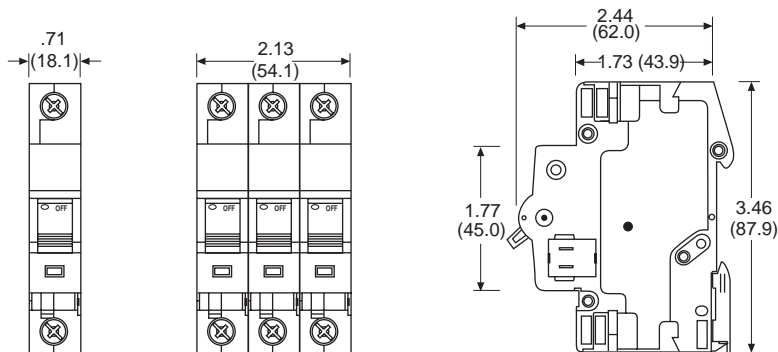
WMS SERIES TECHNICAL DATA

WMS Accessory Data								
Part Number	Auxiliary Switch	Auxiliary Alarm Switch	Shunt Trip	Electrical Characteristics	Cable Size		Tightening Torque	
					mm ²	AWG	Nm	lb-in
WAL1A1B	---	•	---	1 Changeover Contact 240 VAC, 6 A	0.5 to 4	18 to 12	0.8	7.1
WAX1A1B	•	---	---	2 Changeover Contact 240 VAC, 6 A				
WST415A	---	---	•	240/415 VAC				
WST48D	---	---	•	12/48 VAC				
WST220A	---	---	•	110/220 VAC				

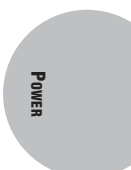
Accessories Assembly



WMS Supplementary Protector Dimensions



Dimensions are approximate, inches (mm) - Not for construction purposes





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WMS SERIES ACCESSORIES

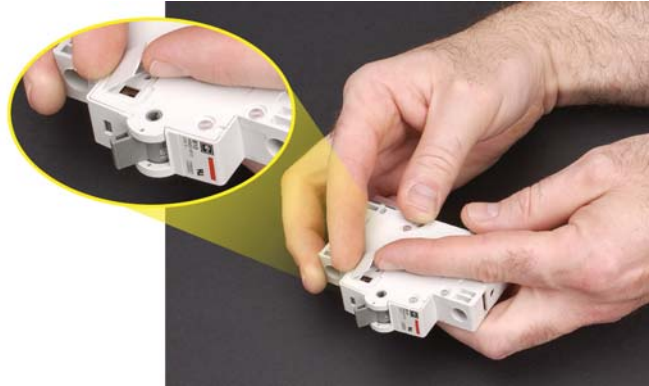
Field Mountable Accessories

- Quick 3-step process, no tools required
- Auxiliary switch
- Alarm switch
- Shunt trip

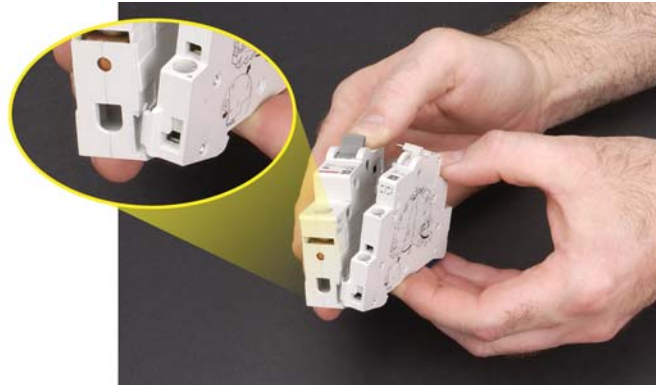
Accessory “Quick 3-Step” Field Mounting

Three steps to fitting any of the mounted accessories. No tools required.

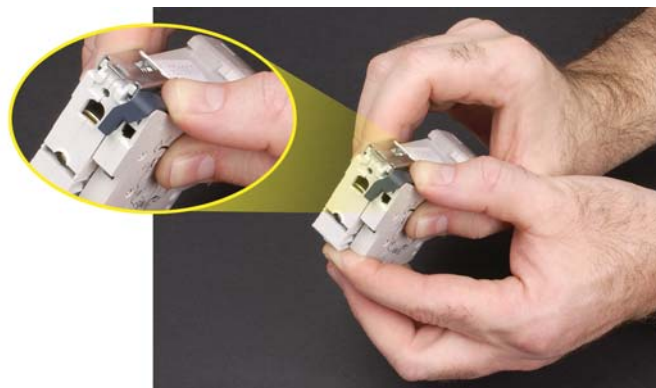
Before you do this, you should make sure the device is in the OFF position - check the handle position and flag indicator.



Step One - Remove left-hand “accessory window”



Step Two - Place the accessory's clip into the device's positioning groove



Step Three - Push the blue pivot clip up, and snap into place