

WMS SUPPLEMENTARY PROTECTORS

Product Specification

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

The Supplementary Protector is designed to be applied in conjunction with a branch circuit 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 you to select and apply 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 protectors, 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

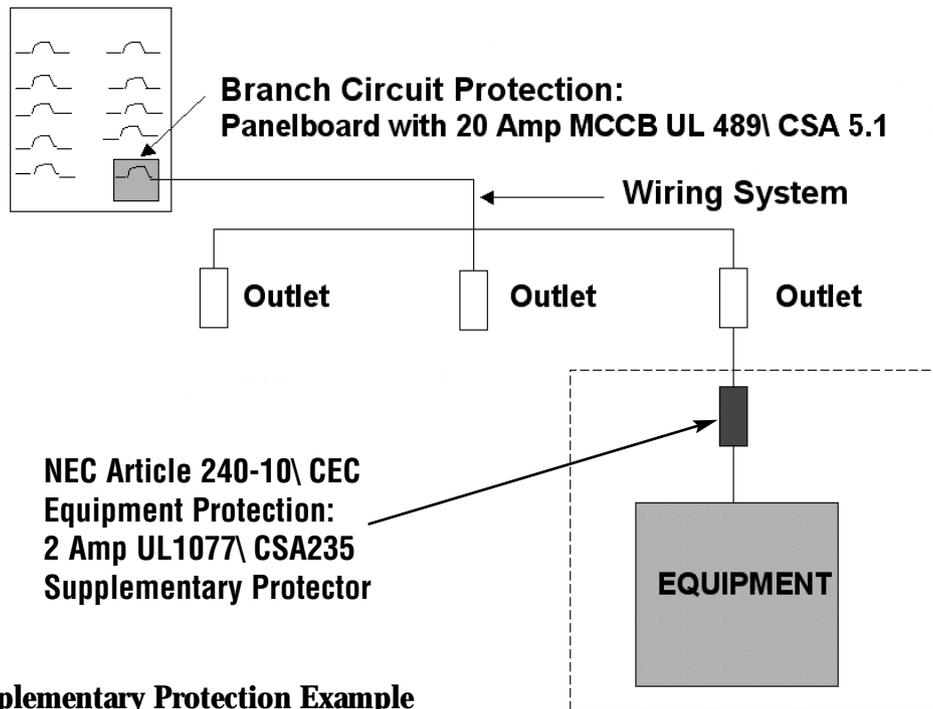
Standards and Certifications

- UL recognized under UL 1077
- CSA 22.2, No. 235
- IEC 898
- IEC 60947-2

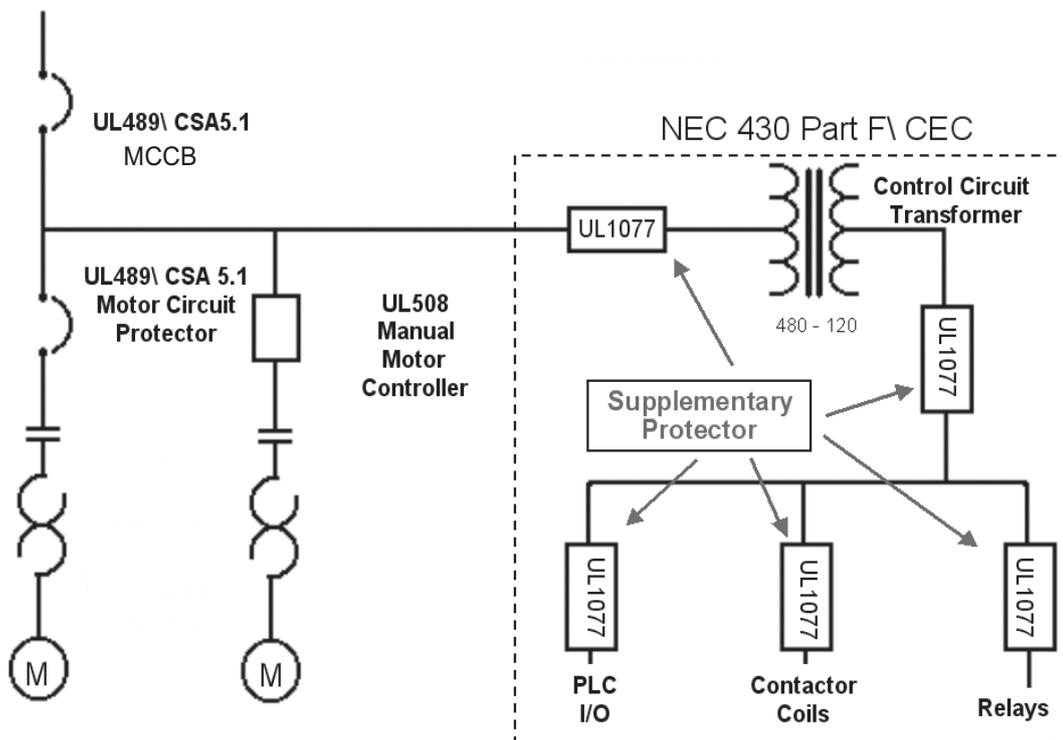


WMS SUPPLEMENTARY PROTECTORS

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	↔	WMS1D06	↔
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



Two-Pole

WMS - Two-Pole Selection Guide				
Ampere Rating	B Curve Part Number	Price	D Curve Part Number	Price
2	N/A	N/A	WMS2D02	
3			WMS2D03	
4			WMS2D04	
5			WMS2D05	
6			WMS2B06	
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	N/A

POWER



WMS SERIES SELECTION GUIDE

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		WMS3D06	
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



Three-Pole

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

*Note: 480 volt when symmetrical 3-phase system is used

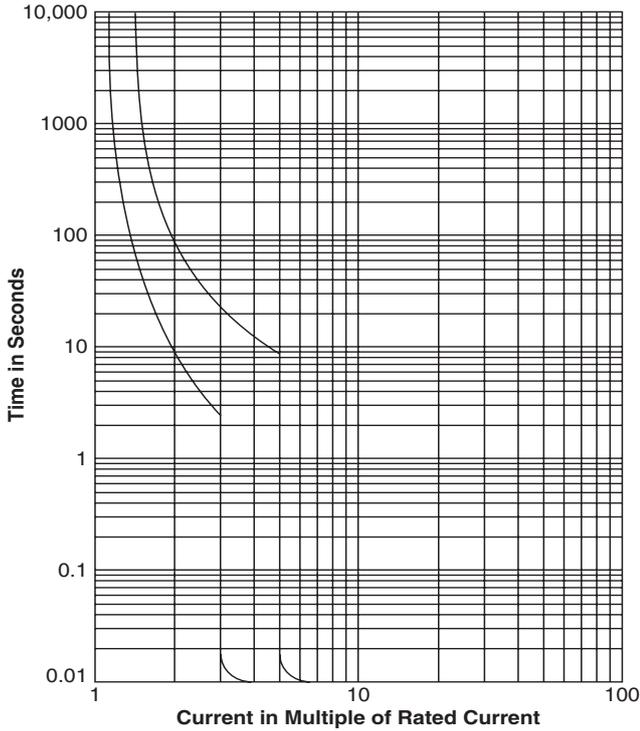
IEC Ratings				
Ampere Rating	Curve	Volts AC	Short Circuit Capacity (A)	
			IEC 898	IEC 947-2
2 - 5	D	240/415**	10,000	10,000
6 - 40	B, D			
50 - 60	B			

*Note: 415 volt when symmetrical 3-phase system is used

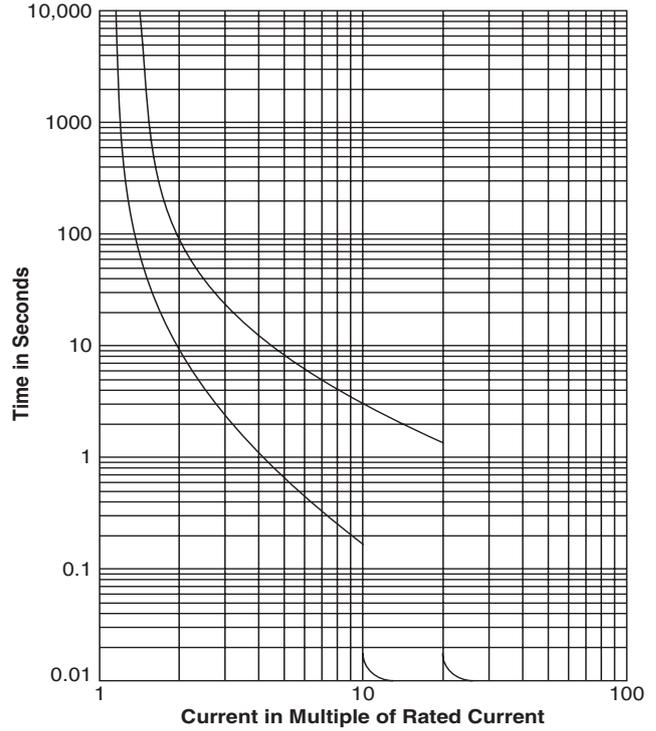
Cable Size and Torque Setting - WMS				
Ampere Rating	Cable Size		Tightening Torque	
	mm ²	AWG	Nm	lb-in
2 - 60	1 to 25	14 to 6	2.8	24.8

WMS SERIES TECHNICAL DATA

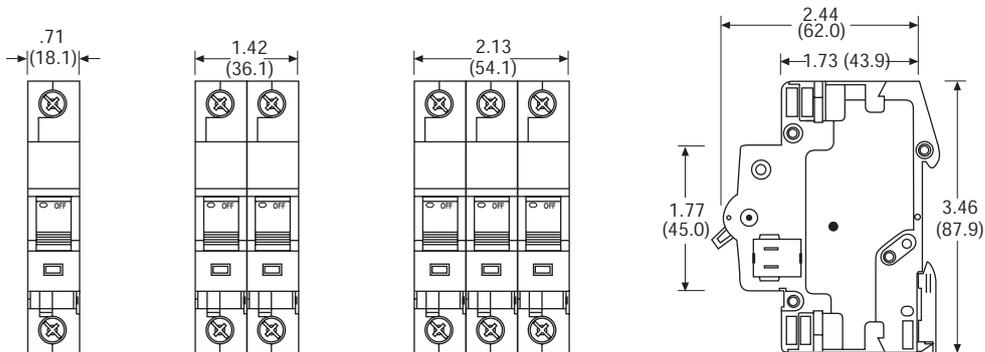
Curve B - Time/Current Characteristic



Curve D - Time/Current Characteristic



WMS Supplementary Protector Dimensions



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

POWER



WMS SERIES ACCESSORIES

Field Mountable Accessories

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



WAL1A1B
Alarm Switch



WAX1A1B
Auxiliary Switch



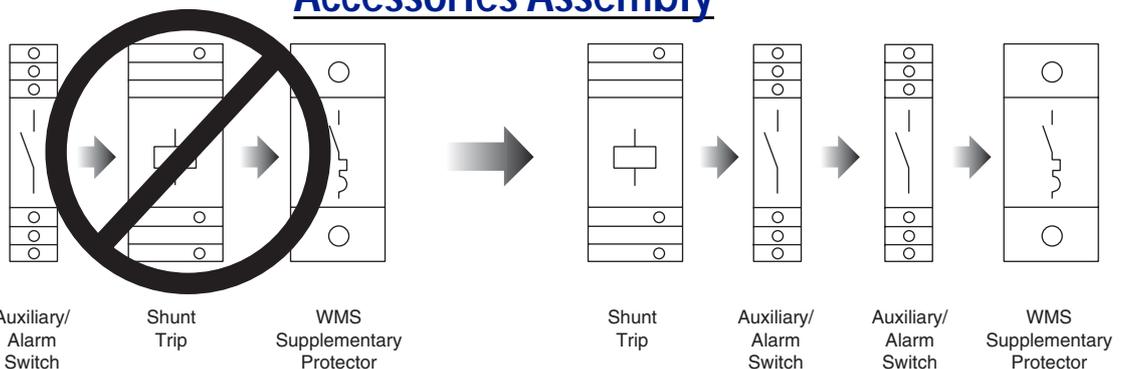
WSTxxxx
Shunt Trip

WMS Accessories Selection Guide				
Part Number	Description	Number of Contacts	Module Width	Price
WAL1A1B	Alarm Switch (attach to the WMS supplementary protector; the unit will change state whenever the supplementary protector is tripped by an overload or a short circuit)	1 N.O./1 N.C.	1/2"	<--->
WAX1A1B	Auxiliary Switch (attach to the WMS supplementary protector; the unit will change state whenever the supplementary protector changes state)	1 N.O./1 N.C.	1/2"	<--->
Part Number	Description	Trip Voltage	Module Width	Price
WST220A	Shunt Trip (attach to the WMS supplementary protector; the unit allows remote tripping of the supplementary protector by applying the appropriate voltage to its coil)	110-220VAC	1 "	<--->
WST415A		240-415VAC		
WST48D		12-48VDC		

NOTE: An unlimited number of units can be attached to a WMS.

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	---	•	---	2 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 SERIES ACCESSORIES

“Quick 3-Step” Field Mounting

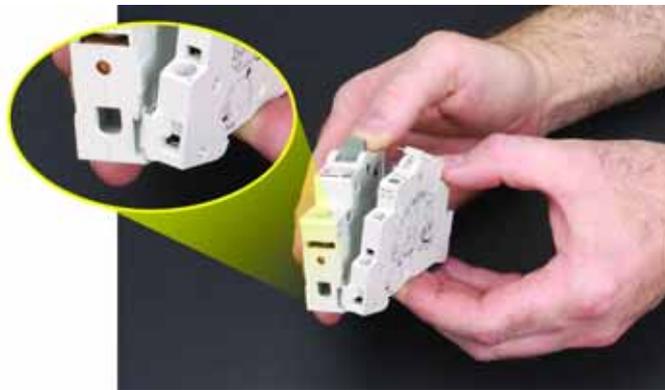
Follow these three steps to fitting any of the mounted accessories, with no tools required.

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

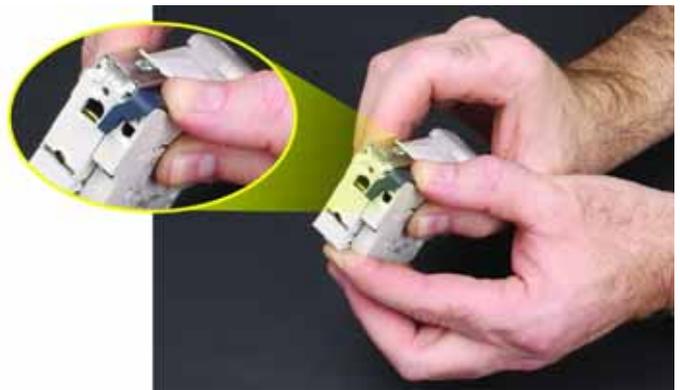
Step One - Remove left-hand “accessory window”



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



Additional WMS Accessories



WIDL
Identification Labels



WPKEY
Lockout Padlock



WPLK
Lockout Attachment

Additional WMS Accessories Selection Guide		
Part Number	Description	Price
WIDL	Identification Labels - 120/package (for use with the supplementary protectors only)	<--->
WPKEY	Lockout Padlock with 3 Keys ¹ (use with lockout attachment)	<--->
WPLK	Lockout Attachment (for all WMS supplementary protectors)	<--->

¹ Additional keys are not available for this lock.