



Model: WMS

Circuit Protection- Supplementary Protectors

Cutler-Hammer WMS supplementary protectors are used to provide overcurrent protection where branch circuit protection is installed upstream in the power circuits. With Cutler-Hammer thermal magnetic technology, these are ideal protection against short circuit and overload conditions. Since the WMS series is dual rated for AC and DC supplies, it can be installed in most applications including replacement for fuses.

Choose from a complete product line of supplementary protectors. 1, 2, and 3 pole configurations are available from 2 A to 60 A utilizing B and D type trip curves. B curve trips operate at 3 to 5 times the rated current and are typically used with PLC's, industrial computers, communication equipment and other low inrush type loads. D curve trips operate at 10 to 20 times the rated current for higher inrush current devices such as motors and transformers.

Shunt trips modules are offered for remotely triggering the device. Auxiliary contact module allows a contact for remote monitoring the protector. Lastly, lockout attachment and product labels round out the complete product line.

Description

- Dual standard breaker:
 - Recognized by UL and CSA under UL 1077 and CSA 22.2.
 - Third party approved by KEMA according to IEC 898.
- CE marked in accordance with Low Voltage Directive (LVD) (73/23/EEC).
- Used to provide overcurrent protection where branch protection (for example UL 489 MCCB) is already provided or not required.
- Installed as a component within or part of an appliance or a piece of electrical equipment.
- Ideal replacement for fuses that are applied as a supplementary protector, i.e. in addition to branch protection (if required).
- 35 mm DIN rail mountable, utilizing metallic "extra strength" spring clip.
- Light gray case with gray handle, that is marked "O" for OFF and "I" for ON.
- UL File Number E162396.
- CSA File Number LR105508-2.

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
- Cable direct into terminal utilizing ring tung connector
- 35 mm DIN rail mountable, utilizing "extra strength" spring clip



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Field Mountable Accessories

- Quick 3-step process.
- No tools required.
- Auxiliary switch.
- Combined auxiliary switch and bell alarm.
- Shunt trip.

Standards and Certifications

- UL recognized under UL1077
- CSA 22.2
- IEC 898
- IEC 60947-2



Applications

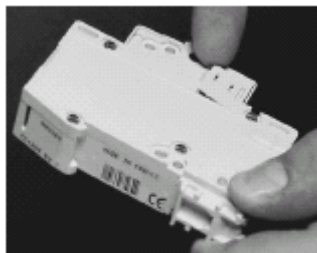
Cutler-Hammer Supplementary Protectors by Eaton Corporation are ideal for providing protection in a multitude of applications, including:

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

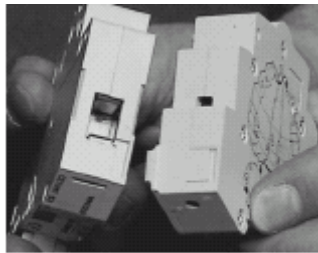
Accessory "Quick 3-Step" Field Mounting

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

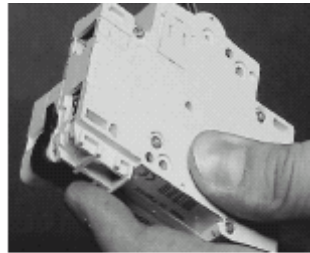
Before you do this, you should make sure the device is in the OFF position— check the handle position and flag indicator.



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

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 within 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. This is very important as the different areas of the world market draw closer together and the need for breakers that meet different standards is a common, everyday occurrence.

It is to be applied in conjunction with 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 to this, the user is able to select a device that provides maximum reliability and accuracy to fit their various applications (of which there are many) due to the availability of a wide range of current ratings from 0.5 to 60 amperes and two different overcurrent characteristic curves, B and D. With easy mounting of the device on a 35 mm DIN rail and also the "Quick 3 Step" field mountable accessories, it is now easier for the customer to select and apply this modular range. In addition, utilizing the bus bar comb to connect multiple devices from a single power source, saves time as multiple wire connections are no longer required. Due to the smaller modular width of the device and accessories, it enables them to save space in their panel or equipment — which directly leads to cost savings!



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Technical Data

IEC Ratings

Ampere Rating	Curve	Volts AC	Short Circuit Capacity (A)	
			IEC 898, Icn	IEC 947-2, Icu
0.5-5	D	240/415	10,000	10,000
6-40	B,D	240/415	10,000	10,000
50-60	B	240/415	10,000	10,000

UL/CSA Ratings

Ampere Rating	Poles	Curve	Volts AC	Short Circuit Capacity (A)	
				IEC 898, Icn	IEC 947-2, Icu
6-40	1	B	120	10,000	10,000
0.5-60	1	D	120	10,000	10,000
6-40	2,3	B	240	10,000	10,000
0.5-60	2,3	D	240	10,000	10,000
6-40	1	B	277	6,000	6,000
0.5-60	1	D	277	6,000	6,000
6-40	2,3	B	480	5,000	5,000
0.5-60	2,3	D	480	5,000	5,000

DC Ratings

Ampere Rating	Poles	Curve	Volts DC	Short Circuit Capacity (A)	
				IEC 898, Icn	IEC 947-2, Icu
0.5-63	1	B,D	65	10,000	10,000
0.5-63	2	B,D	130	10,000	10,000

Cable Size and Torque Settings—WMS

Ampere Rating	Cable Size		Tightening Torque	
	mm ²	AWG	Nm	lb-in
0.5-63	1 to 25	14 to 6	2.8	24.8

Accessory Technical Data

Auxiliary Switch	Auxiliary Alarm Switch	Shunt Trip	UVR	Electrical Characteristics	Cable Size		Tightening Torque		Catalog Number
					mm ²	AWG	Nm	lb-in	
No	Yes	No	No	1 Changeover Contact 240V ~ 6A	0.5 to 4	18 to 12	0.8	7.1	WAL1A1B
Yes	No	No	No	2 Changeover Contact 240V ~ 6A	0.5 to 4	18 to 12	0.8	7.1	WAX1A1B
No	No	Yes	No	230-415V ~/110-130V---	0.5 to 4	18 to 12	0.8	7.1	WST415A
No	No	Yes	No	9-48V --- /48V-	0.5 to 4	18 to 12	0.8	7.1	WST48D
No	No	Yes	No	110V --- /220V-	0.5 to 4	18 to 12	0.8	7.1	WST220A

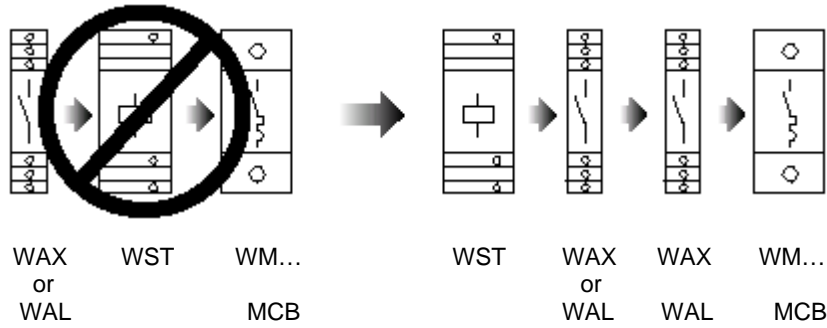
General Specifications

IP Rating	IP20
Operating Temperature	5° to +60° C
Rated Insulation Voltage	500V
Weight	1p 17g
	2p 34g
	3p 52g

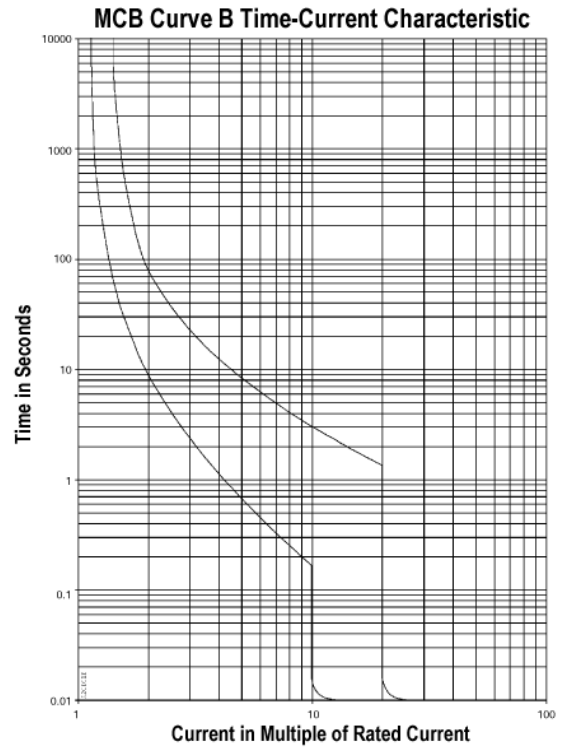
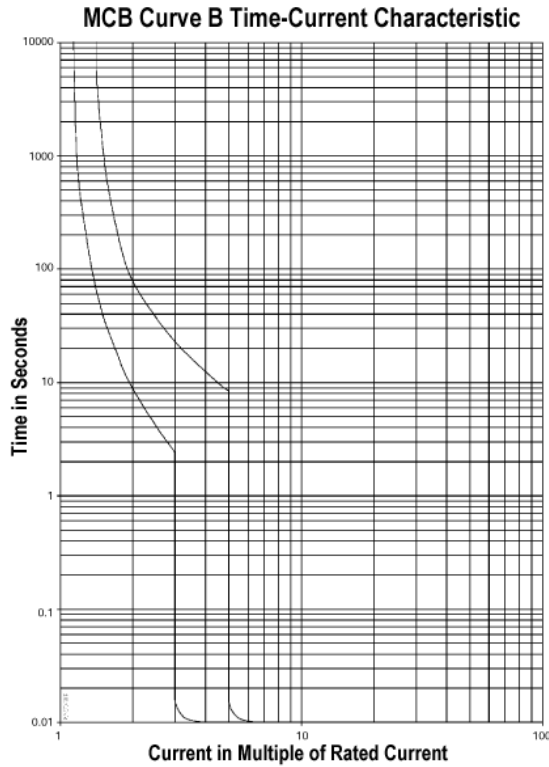
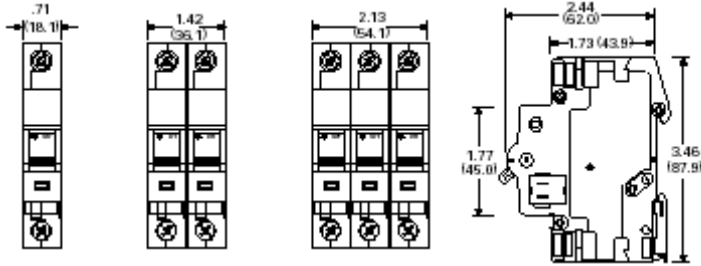


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Approximate Dimensions



Product Selection

WMS—1 Pole selection guide

B Curve Model No.	D Curve Model No.	Amperage
N/A	WMS1D02	2
N/A	WMS1D03	3
N/A	WMS1D04	4
N/A	WMS1D05	5
WMS1B06	WMS1D06	6
WMS1B07	WMS1D07	7
WMS1B08	WMS1D08	8
WMS1B10	WMS1D10	10
WMS1B13	WMS1D13	13
WMS1B15	WMS1D15	15
WMS1B16	WMS1D16	16
WMS1B20	WMS1D20	20
WMS1B25	WMS1D25	25
WMS1B30	WMS1D30	30
WMS1B40	WMS1D40	40
WMS1B50	N/A	50
WMS1B60	N/A	60



Single-Pole

WMS—2 Pole selection guide

B Curve Model No.	D Curve Model No.	Amperage
N/A	WMS2D02	2
N/A	WMS2D03	3
N/A	WMS2D04	4
N/A	WMS2D05	5
WMS2B06	WMS2D06	6
WMS2B07	WMS2D07	7
WMS2B08	WMS2D08	8
WMS2B10	WMS2D10	10
WMS2B15	WMS2D15	15
WMS2B20	WMS2D20	20
WMS2B25	WMS2D25	25
WMS2B30	WMS2D30	30
WMS2B40	WMS2D40	40
WMS2B50	N/A	50
WMS2B60	N/A	60



Double-Pole

WMS—3 Pole selection guide

B Curve Model No.	D Curve Model No.	Amperage
N/A	WMS3D02	2
N/A	WMS3D03	3
N/A	WMS3D04	4
N/A	WMS3D05	5
WMS3B06	WMS3D06	6
N/A	WMS3D08	8
WMS3B10	WMS3D10	10
WMS3B15	WMS3D15	15
WMS3B20	WMS3D20	20
WMS3B25	WMS3D25	25
WMS3B30	WMS3D30	30
WMS3B40	WMS3D40	40
WMS3B50	N/A	50
WMS3B60	N/A	60



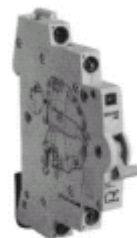
Triple-Pole

WMS accessories selection guide

Model No.	Description
WAL1A1B	Alarm switch with 1 N.O and 1 N.C. contact
WAX1A1B	Auxiliary switch with 1 N.O and 1 N.C. contact
WST220A	Shunt trip for 110-220 VAC
WST415A	Shunt trip for 240-415 VAC
WST48D	Shunt trip for 12-48 VDC
WIDL	Identification labels—120 per package
WPLK	Lockout Attachment



Alarm Switch



Auxiliary Switch

B&B electronics
MANUFACTURING COMPANY

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