

Product Details and Certifications

Cross Reference RA Part Number: 1492-SP2B160 C

 **Product: 1492-SP2B160**

Description: 1492 Supplementary Protectors, 2 poles, Magnetic Trip Range 3..5
x Rated Current (Resistive or Slightly Inductive Loads), 16.0 A



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

RESIDUAL CURRENT DEVICES

Bulletin Number	1492 Supplementary Protectors
Number of Poles	2 Poles
Magnetic Trip Range	Trip Curve B
Amp Rating	16.0 Amps
Switched Neutral Module	No Module

CERTIFICATIONS AND APPROVALS

UL

CSA

VDE/IEC

For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/IFRAME/index.htm>

Bulletin	1492-MC	1492-MCGA, -MCEA	1492-SP
Type	Branch Circuit Breaker	Ground Fault Detection	Miniature Circuit Breaker Supplementary Protector
Features	<ul style="list-style-type: none"> 120/240V, 240V & 480Y/277V rating 1/2 in. per pole wide 10...60 A @ 120/240V AC & 15...30 A @ 240V AC IP2X finger-safe, built-in with 1/2 in. wide, add protectors for 1 in. wide Ratings to 480Y/277V AC, 10 000 A interrupt ratings Mounts on DIN Rail 	<ul style="list-style-type: none"> 10 000 A interrupt UL 489 Circuit breaker with ground fault circuit interrupter and ground fault equipment protector Mounts on DIN Rail or panel mount 	<ul style="list-style-type: none"> True IP2X finger-safe design (front) Field mountable options for selective applications AC and DC voltage ratings in one convenient device Superior shock and vibration resistance capabilities Mounts on DIN Rail
Number of Poles	1-, 2-, 3-pole	1- and 2-pole with Neutral	1-, 2-, 3-pole 1-pole + neutral, 3-pole + neutral
Maximum Voltage	120/240V AC 240V AC	120/240V AC 60 Hz	480Y/277V AC 1-pole — 48V DC 2-pole — 96V DC
Tripping Characteristic Reference Temperature	104 °F (40 °C)	104 °F (40 °C)	86 °F (30 °C)
Tripping Characteristic	UL 489 Standard (CSA 22.2 No. 5.1)	UL/CSA Standard	B Curve 3...5 In C Curve 5...10 In D Curve 10...20 In
Certifications	UL 489 Listed Circuit Breaker (CSA 22.2 No. 5.1) UL File Number E197878	UL 489, 943 and 1053 CSA 22.2 No. 5.1	UL 1077 CSA 22.2 No. 235 VDE (IEC 60898) GL (60 947-2)
Dielectric Strength	1960V AC	1960V AC	1960V AC
Shock	25 G half sine wave for 11 ms (3 axes)		
Vibration	100...500 Hz for 1 hour	100...500 Hz for 1 hour	100...500 Hz for 1 hour
Wire Size	#14...1/0 AWG	#14...4 AWG 75°C (Cu only)	#18...4 AWG (1.0...25 mm ²)
Electromechanical Life	UL 489 specifications	UL 489 specifications	≥6000 operations
Interrupt Rating	10 kA @ 240V AC	10 kA @ 120/240V AC	IEC 60898 10 kA @ 415V AC IEC 60947-2 15 kA @ 415V AC UL/CSA 10 kA U2
Operating Temperature (non-condensing)	32...140 °F (0...+60 °C)	32...140 °F (0...+60 °C)	-22...+158 °F (-30...+70 °C)
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Supplementary Protector/Miniature Circuit Breaker

Product Overview



Bulletin 1492-SP — Supplementary Protector/Miniature Circuit Breaker

- Energy limiting design — protects downstream components better than conventional breakers during short circuits
- Field-mountable options for selective applications
- True IP2X finger-safe design (front)
- International approvals — CE Marked, and meets UL, CSA, and IEC (VDE, GL) standards for worldwide acceptance
- Ratings to 480Y/277V AC @ 240/415V AC — 10 000 A interrupt rating
- AC and DC voltage ratings — in one convenient device
- A positively trip-free mechanism (breaker operation cannot be defeated by holding the handle in the ON position)
- 3 trip curves: B, C, and D
- Time delay (D characteristic) for high inrush currents during inductive start-ups such as transformers and power supplies
- Superior shock and vibration resistance capabilities — helps to prevent nuisance tripping

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Standards Compliance

UL 1077
 CSA C22.2 No. 235
 IEC/EN 60898, 60947-2
 UL File Number E65138
 CCC GB10963

Certifications

UL Recognized
 CSA Certified
 CE Marked
 Germanischer Lloyd (Marine)
 CCC

Bulletin 1492-SP series C devices are energy limiting, thermal magnetic type overcurrent protectors meeting UL 1077/CSA C22.2 No. 235, IEC/EN 60898. These devices are designed for the protection of a wide variety of products including:

- Solenoids
- Test equipment
- Controller I/O points
- Relay and contractor coils
- Computers
- Transformers
- Automotive systems
- Power supplies
- Medical equipment
- Control instrumentation

The Bulletin 1492-SP supplementary protectors/miniature circuit breakers are available in one-, one-pole plus neutral, two-, three-, and three-pole plus neutral units. One- and two-pole AC units also have limited DC ratings. Two- and three pole units are connected at the handle for simultaneous operation. Screw termination is standard on all Bulletin 1492-SP units. Both line and load side terminals accept #18...4 AWG (1.0.. 25 mm²) copper wire.

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Ordering Information

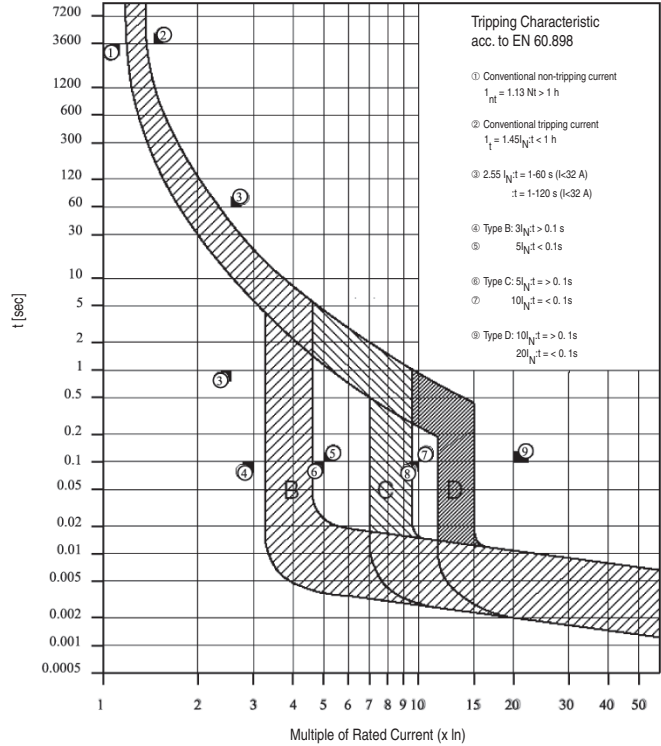
To order the proper device, you need to know the:

- Maximum rated current of equipment to be protected
- System phase of 1-, 2-, or 3
- Maximum startup (inrush) current
- Accessories that are required

Use the product selection tables on the following pages to determine the catalog number.

1. Select a 1-, 2-, or 3-pole device.
2. If needed, select the Switched Neutral Module. The Switched Neutral Module is mounted on the right side of the breaker. This module must be mounted at the factory. It cannot be installed in the field.
3. If applicable, consider the derating factors listed in the Determining Ratings section of Publication 1492-TD010*
4. Order accessory contacts or modules as separate items. Accessory modules are always mounted on the left side of the supplemental protector/miniature circuit breaker. A maximum of two accessory modules can be mounted on a single device.

Refer to the Accessories table on page 7-49 for possible combinations.





Tripping Characteristics
Bul 1492-SP at 30 °C



Supplementary Protector/Miniature Circuit Breaker

Product Selection

Tripping Characteristics		Trip Curve B Resistive or Slightly Inductive	Trip Curve C Inductive	Trip Curve D Highly Inductive
		3...5 I _n	5...10 I _n	10...20 I _n
Number of Poles	Continuous Current Rating (I _n) [A]	Cat. No.	Cat. No.	Cat. No.
2-Pole  IEC 415V AC UL/CSA 480Y/277V AC 96V DC	0.5	—	1492-SP2C005	1492-SP2D005
	1	1492-SP2B010	1492-SP2C010	1492-SP2D010
	2	1492-SP2B020	1492-SP2C020	1492-SP2D020
	3	1492-SP2B030	1492-SP2C030	1492-SP2D030
	4	1492-SP2B040	1492-SP2C040	1492-SP2D040
	5	1492-SP2B050	1492-SP2C050	1492-SP2D050
	6	1492-SP2B060	1492-SP2C060	1492-SP2D060
	7	1492-SP2B070	1492-SP2C070	1492-SP2D070
	8	1492-SP2B080	1492-SP2C080	1492-SP2D080
	10	1492-SP2B100	1492-SP2C100	1492-SP2D100
	13	1492-SP2B130	1492-SP2C130	1492-SP2D130
	15	1492-SP2B150	1492-SP2C150	1492-SP2D150
	16	1492-SP2B160	1492-SP2C160	1492-SP2D160
	20	1492-SP2B200	1492-SP2C200	1492-SP2D200
	25	1492-SP2B250	1492-SP2C250	1492-SP2D250
	30	1492-SP2B300	1492-SP2C300	1492-SP2D300
	32	1492-SP2B320	1492-SP2C320	1492-SP2D320
	40	1492-SP2B400	1492-SP2C400	1492-SP2D400
	50	1492-SP2B500	1492-SP2C500	* 1492-SP2D500
63	1492-SP2B630	1492-SP2C630	* 1492-SP2D630	
3-Pole  IEC 415V AC UL/CSA 480Y/277V AC	0.5	—	1492-SP3C005	1492-SP3D005
	1	1492-SP3B010	1492-SP3C010	1492-SP3D010
	2	1492-SP3B020	1492-SP3C020	1492-SP3D020
	3	1492-SP3B030	1492-SP3C030	1492-SP3D030
	4	1492-SP3B040	1492-SP3C040	1492-SP3D040
	5	1492-SP3B050	1492-SP3C050	1492-SP3D050
	6	1492-SP3B060	1492-SP3C060	1492-SP3D060
	7	1492-SP3B070	1492-SP3C070	1492-SP3D070
	8	1492-SP3B080	1492-SP3C080	1492-SP3D080
	10	1492-SP3B100	1492-SP3C100	1492-SP3D100
	13	1492-SP3B130	1492-SP3C130	1492-SP3D130
	15	1492-SP3B150	1492-SP3C150	1492-SP3D150
	16	1492-SP3B160	1492-SP3C160	1492-SP3D160
	20	1492-SP3B200	1492-SP3C200	1492-SP3D200
	25	1492-SP3B250	1492-SP3C250	1492-SP3D250
	30	1492-SP3B300	1492-SP3C300	1492-SP3D300
	32	1492-SP3B320	1492-SP3C320	1492-SP3D320
	40	1492-SP3B400	1492-SP3C400	1492-SP3D400
	50	1492-SP3B500	1492-SP3C500	* 1492-SP3D500
63	1492-SP3B630	1492-SP3C630	* 1492-SP3D630	

Note: 1492-SP 1- and 3-pole circuit breakers are also available with neutral. Add a suffix of -N to the cat. no.

* IEC only, does not have CCC, UR, or CSA certifications



Supplementary Protector/Miniature Circuit Breaker

Specifications

Specifications

		1492-SP Series C		
Description		B Curve	C Curve	D Curve
Tripping Characteristics	Resistive or Slightly-Inductive Loads		Inductive Loads	Highly-Inductive Loads
		3...5 I_n	5...10 I_n	10...20 I_n
Current Range	1...63 A		0.5...63 A	0.5...40 A
Poles (18 mm width per pole)			1, 2, 3, 1 +N, 3 + N	
Dielectric Strength			1960V AC	
Shock			25 G Half Sine Wave for 11 ms (3 axes)	
Vibration			Frequency Range: 10...2000 Hz Max. Amplitude (p-p) = 0.030 in. Max. Acceleration = 5 G 2 hours each of 3 axes	
Operating Temperature Range			23...104 °F (-5...+40 °C) non-condensing	
Shipment and Short-Term Temperature Limits			-22...+158 °F (-30...+70 °C)	
Housing Material			Nylon	
Wire Size			#18...8 AWG (1.0...10 mm ²) Tightening Torque — 2.4 N•m (21 lb•in)	
			#6...4 AWG (16...25 mm ²) Tightening Torque — 3.1 N•m (27 lb•in)	
Recommended Wire Strip Length			0.51 in. (13 mm)	
Electromechanical Life			6000 operations (1 operation = 2 switching events) ON/OFF	
Switched Neutral Rating			277V AC	
Supplementary Protector				
Certifications			UL 1077 - Recognized Component QVNU2 - E65138 CSA C22.2 No. 235 Certified Component	
Use Group (UG)			UG A - General Industrial	
Terminals (FW)			FW 3 Line and Load evaluated for field wiring	
Overload Rating (OL)			OL 0 (general use)	
1-Pole, 1-Pole + N				
Maximum Volts			277V AC	48V DC
Tripping Current (TC)			TC 1, 40 °C	TC 1, 40 °C
Short-Circuit Current Rating (SC)	< 35 A		10 kA @ 277V AC; B and C Curve 5 kA @ 277V AC; D Curve	10 kA @ 48V DC; B, C, and D Curve
	40, 50, 63 A		5 kA @ 277V AC; B, C, and D Curve	
2-Pole, 3-Pole, 3-Pole + N				
Maximum Volts			480Y/277V AC	96V DC (2-pole - series)
Tripping Current			TC 2, 40 °C	TC 2, 40 °C
Short-Circuit Current Rating (SC)	< 35 A		10 kA @ 480Y/277V AC; B and C Curve 5 kA @ 480Y/277V AC; D Curve	10 kA @ 96V DC; B, C, and D Curve
	40, 50, 63 A		5 kA @ 480Y/277V AC; B, C, and D Curve	
Miniature Circuit Breaker				
Certifications			IEC/EN 60898 (VDE) IEC/EN 60947-2 (GL) (not including D50 and D63) CQC (GB-10963) (not including D50 and D63)	
Rated Voltage Un			240/415VAC 48V DC (CE 60747-2)	
Rated Insulation Voltage Ui			440 VAC	
Rated Impulse Withstand Voltage Uimp			4 kV (1.2/50) μsec	
Conventional Non-Tripping Current			int = 1.13 In	
Conventional Tripping Current			it = 1/45 In	
Reference Temperature			30 °C	
Temperature Factor			0.5% /K	
Maximum Back-Up Fuse			125 A gL/gG	
Selectivity Class			3	
Rated Short-Circuit Capacity			Icn (IEC 60 898) = 10 kA Icu (IEC 60 947-2) = 15 kA	
Service Short-Circuit Capacity			Ics = 7.5 kA	
Climatic Conditions			Acc to IEC 68-2 (25...55 °C/ 90...95% RH)	