

Features

- High energy MOV technology with Advanced Thermal Disconnector (TD+)
- Status indicator
- Replaceable modular design
- For Common Mode and Differential Mode protection
- Remote signaling capability
- Complies with UL 1449 standard
- RoHS compliant*

Applications

- DC power systems
- Photovoltaic systems
- EV charging stations

1420A Series DC Power SPD for Photovoltaic Applications

General Information

The Bourns® Model 1420A Series is a DC power Surge Protective Device (SPD) designed to protect power systems from damage due to lightning, transients and power surges, up to rated limits.

The Model 1420A Series is a Din-Rail mountable SPD designed to protect DC power systems operating up to 1500 VDC.

Additional Information

Click these links for more information:

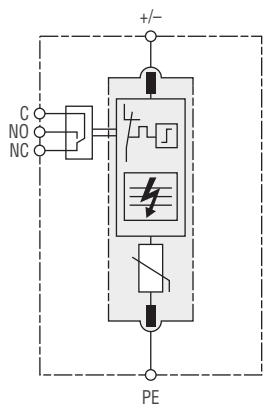
PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Characteristics

Characteristic	Model No.				
	1420A-PV-48-P 1420A-PV-48-D	1420A-PV-600-D 1420A-PV-600-Y	1420A-PV-1000-Y	1420A-PV-1200-Y	1420A-PV-1500-Y
Network Voltage (U_n) DC	48 VDC	600 VDC	1000 VDC	1200 VDC	1500 VDC
Compliance	UL1449 Type 4,Type 1 location				
Product Technologies	High energy MOV Technology Advanced Thermal Disconnector (TD+)				
Protection Mode	Single CM[1]	CM[1] CM/DM[1] 1 CM/DM			
Max. Operating Voltage (U_c) DC	85 VDC	670 VDC 700 VDC	1120 VDC	1340 VDC	1500 VDC
UL Nominal Discharge Current (I_n) 15 Impulses 8/20 µs	20 kA				
Max. Discharge Current (Imax) 1 Impulse 8/20 µs	50 kA				
UL Voltage Protection Rating (VPR)	< 0.4 kV < 0.4 kV	< 1.5 kV < 1.8 kV	< 2.5 kV	< 3.0 kV	< 4.0 kV
UL Short-Circuit Current Rating (SCCR)	30 kA	50 kA			
Leakage Current at U_c	< 50 µA				
Follow Current (I_f)	None				

Note 1. CM = Common Mode (+/PE or -/PE) and CM/DM = Common Mode and Differential Mode (±).

Electrical Diagram



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CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Actual product may differ from image shown.
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1420A Series DC Power SPD for Photovoltaic Applications

BOURNS®

General Characteristics

Characteristic	Model No.				
	1420A-PV-48-P 1420A-PV-48-D	1420A-PV-600-D 1420A-PV-600-Y	1420A-PV-1000-Y	1420A-PV-1200-Y	1420A-PV-1500-Y
Thermal Disconnector	Internal green – normal ; red - failure				
Dimensions	See Product Dimensions				
Connection	By Screw Terminal: Single-strand #2 AWG or 35 mm^2; multi-strand #4 AWG or 25 mm^2				
Disconnection Indicator	1 Mechanical Indicator				
Mounting	Din-Rail, 35 mm Symmetrical				
Remote Signaling	250 V / 0.5 A (AC) 125 V / 0.2 A (DC)				
Enclosure Material	Thermoplastic UL 94V0				

Environmental Characteristics

Characteristic	Model No.				
	1420A-PV-48-P 1420A-PV-48-D	1420A-PV-600-D 1420A-PV-600-Y	1420A-PV-1000-Y	1420A-PV-1200-Y	1420A-PV-1500-Y
Operating Temperature	-40 °C to +85 °C				
Environmental Rating	IP 20				

Standards Compliance

UL1449 ..... Type 4, Type 1 location
CSA C22.2 ..... Type 4, Type 1 location
RoHS ..... RoHS Directive 2015/863, Mar 31, 2015 and Annex

Agency Recognition

Agency	Category	Agency File No.
c UL us	UL1449 - 5th Ed.	E313168

How to Order

1420A - PV - 1000 - Y

Model Designator
1420A = Advanced Version of 1420 Series

Application Code
PV = Photovoltaic

Network Voltage
1000 = 1000 VDC

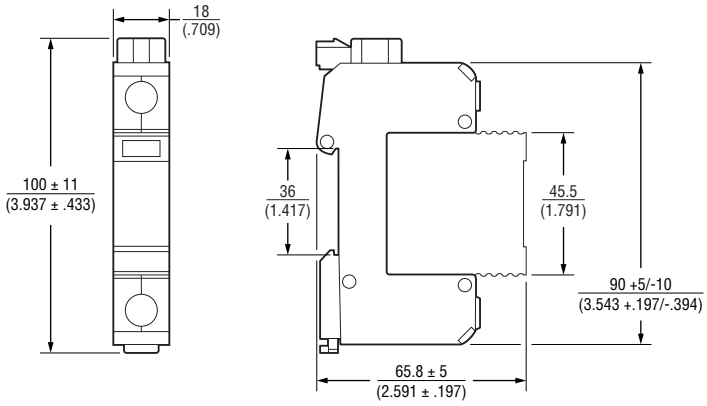
Configuration
P = Single protection
D = V configuration
Y = Y configuration

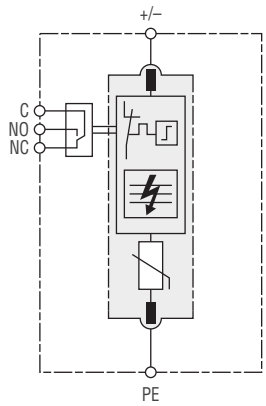
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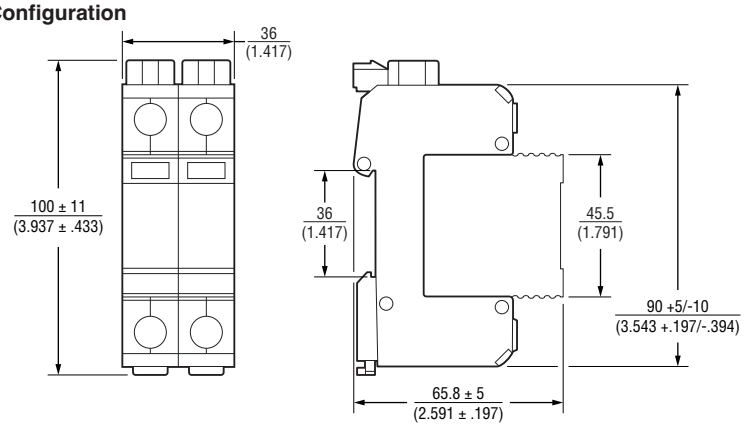
Product Dimensions and Schematics

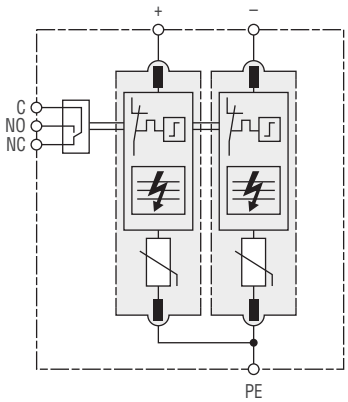
Single Protection



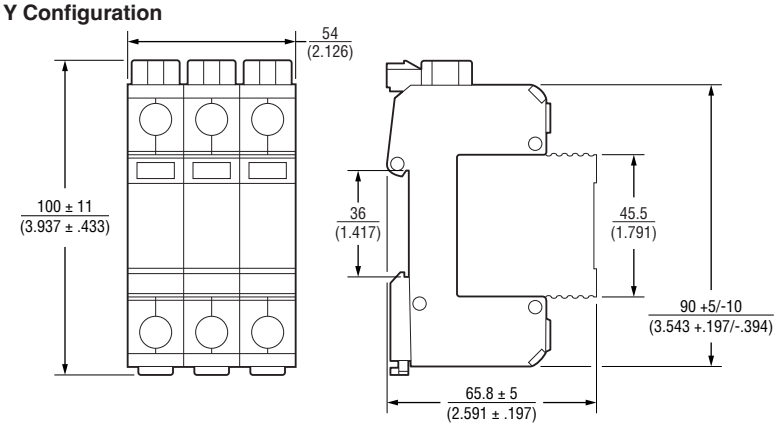


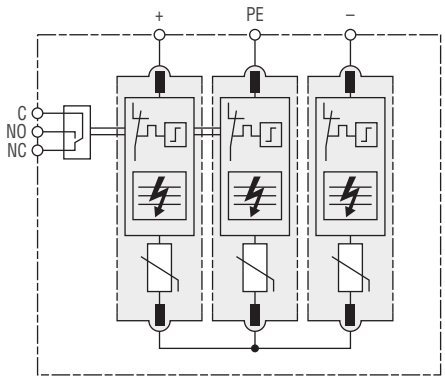
V Configuration





Y Configuration





REV. 11/25

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