

Features

- Hybrid MOV/GDT design
- No leakage over life
- DIN Rail mountable
- 40 kA maximum impulse current rating
- Minimal footprint within DC power system
- Uni-block design with replaceable modules
- Visual fault indicator
- Thermal disconnect
- Standards compliance:
- RoHS compliant*

1420 Series DC Power SPD for Photovoltaic Applications

General Information

The Bourns® Model 1420 Series is a DC power Surge Protective Device (SPD) designed to protect power systems operating up to 1200 Vdc. The unique hybrid MOV/GDT design provides an enhanced level of protection against the effects of direct or indirect lightning.

Additional Information

Click these links for more information:



Electrical Characteristics

| Characteristic | Model No. 1420-PV-1000 |
|---|---------------------------|
| Network Voltage (Un) dc | 1000 VDC |
| Protection Mode | MC/MD1 |
| Max. Operating Voltage (Uc) dc | 1200 VDC |
| IEC/UL Nominal Discharge Current (In) 15 x 8/20 μ s impulses | 20 kA |
| Max. Discharge Current (Iimp) 10/350 μ s max. | -- |
| Max. Lightning Current by Pole (Imax) | 40 kA |
| Protection Level @ In (Up) | < 3.6 kV |
| Residual Voltage at 5 kA | < 2.6 kV |
| Operating Current (Ic) Leakage Current at Uc | None |
| Follow Current (If) | None |

Note 1: MC = Common Mode (+/PE or -/PE) and MC/MD = Common Mode and Differential Mode (\pm).

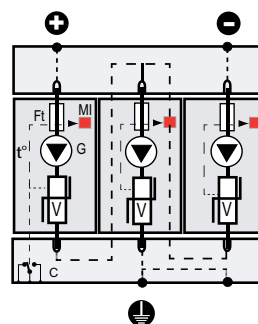
General Characteristics

| Characteristic | Model No. 1420-PV-1000 |
|-------------------------|--|
| Thermal Disconnect | Internal |
| Dimensions | See Product Dimensions |
| Connection | By Screw Terminal: #4 AWG max. |
| Disconnection Indicator | 1 Mechanical Indicator |
| Mounting | DIN Rail, 35 mm Symmetrical |
| Remote Signaling | 250 V / 0.5 A (AC) 125 V / 3 A (DC) |
| Enclosure Material | Thermoplastic UL 94V0 |

Environmental Characteristics

| Characteristic | Model No. 1420-PV-1000 |
|-----------------------|---------------------------|
| Operating Temperature | -50 °C to +85 °C |
| Environmental Rating | IP 20 |

Electrical Diagram



- V: High energy MOV
- G: Heavy duty gas discharge tube
- Ft: Thermal fuse
- C: Remote signaling contact
- t*: Thermal disconnection system

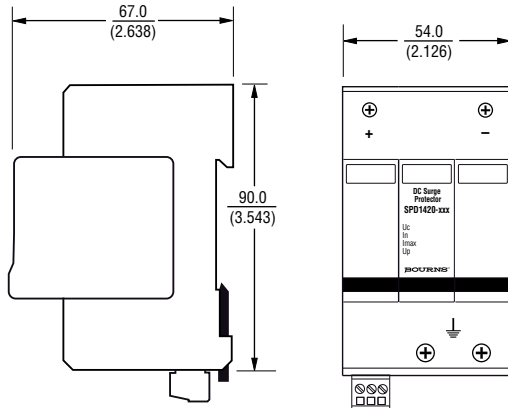
*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Applications

- DC power applications up to 1200 VDC

1420 Series DC Power SPD for Photovoltaic Applications **BOURNS®**

Product Dimensions



Standards Compliance

IEC61643-1 - International Low Voltage SPD - Test Class II
 NF EN 61643-11 - France Low Voltage SPD - Test Class II
 UL1449 5th Edition - USA..... Type 4, Type 2 Location
 CSA C22.2 No. 8-M1986.....Class 9091 32, Class 9091 92
 DIN EN61643-11 - GermanySurge Arrestor Type 2

Agency Recognition

| Agency | Category | Agency File No. |
|--------|------------------|-------------------------|
| | UL1449 - 5th Ed. | E313168 |

How To Order

1420 - PV - 1000

Series _____

Application Code _____
 PV = Photo Voltaic

Network Voltage _____
 1000 = 1000 VDC

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REV. 06/25

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Users should verify actual device performance in their specific applications.

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