

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

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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

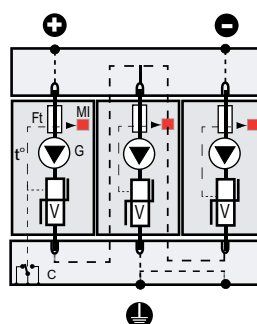
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Electrical Diagram



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

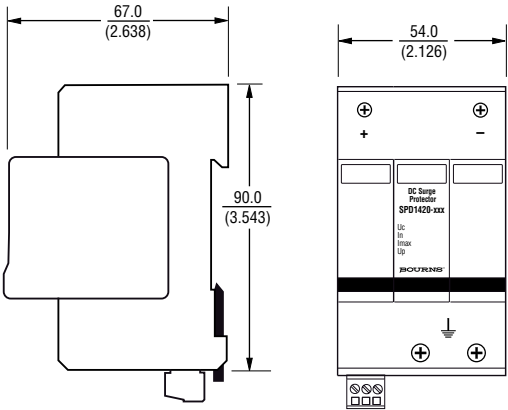
Applications

■ 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.
US	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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