



Features

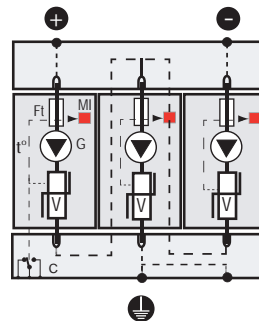
- Hybrid MOV/GDT design
- No leakage over life
- DIN Rail mountable
- 40 kA maximum impulse current rating
- Minimal footprint within DC power system
- Uni-block design with replaceable modules
- Visual fault indicator
- Thermal disconnect
- Standards compliance: CE  
- RoHS compliant*

1420 Series DC Power SPD for Photo Voltaic Applications

General Information

The Bourns® Model 1420 Series is a DC power Surge Protective Device (SPD) designed to protect DC 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.

Electrical Diagram



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

Electrical Characteristics

Characteristic	Model No. 1420-PV-1000
Network Voltage (Un) dc	1000 Vdc
Protection Mode	MC/MD ¹
Max. Operating Voltage (Uc) dc	1200 Vdc
IEC/UL Nominal Discharge Current (In) 15 x 8/20 μs impulses	20 kA
Max. Discharge Current (Iimp) 10/350 μs 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 (±).

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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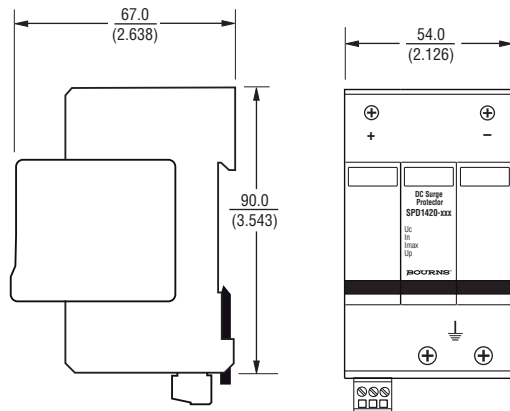
Applications

- DC power applications up to 1200 Vdc

1420 Series DC Power SPD for Photo Voltaic Applications

BOURNS®

Product Dimensions



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Standards Compliance

IEC61643-1 - InternationalLow Voltage SPD - Test Class II
 NF EN 61643-11 - FranceLow Voltage SPD - Test Class II
 UL1449 3rd Edition - USA Type 4, Type 2 Location
 CSA C22.2 No. 8-M1986 Class 9091 32, Class 9091 92
 DIN EN61643-11 - Germany Surge Arrestor Type 2

How To Order

Series 1420 - PV - 1000
 Application Code _____
 PV = Photo Voltaic
 Network Voltage _____
 1000 = 1000 Vdc

BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

www.bourns.com

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