INTRODUCTION
The Bourns® Model 1420A Series is a DC power Surge Protective Device (SPD). It is designed for photovoltaic system DC-side protection against damage from surges caused by lightning and other electrical sources, up to rated limits, while operating up to 1500 VDC. This new SPD has a unique high-energy MOV technology design that features an Advanced Thermal Disconnector (TD+) to deliver an enhanced level of protection against the effects of direct or indirect lightning threats. These space-saving DIN Rail mountable devices have a maximum lightning surge current rating of 50 kA (8/20 μs) per pole. This series is RoHS compliant, UL recognized and meets UL 1449 requirements.

FEATURES AND BENEFITS
- High-energy MOV technology with Advanced Thermal Disconnector (TD+)
- Status indicator
- Replaceable modular design
- Ideal solution for common mode and differential mode protection
- Remote signaling capability
- UL1449 Type 4, Type 2 Location
- High surge current discharge capacity up to 50 kA, 8/20 μs

HOW TO ORDER
Model Designator 1420A - PV - xxxx - x
Application Code PV = Photovoltaic
Network Voltage
48 = 48 VDC
600 = 600VDC
1000 = 1000 VDC
1200 = 1200 VDC
1500 = 1500 VDC
Configuration
P = Single protection
D = V configuration
Y = Y configuration

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Voltage (U_n) DC</td>
<td>48 VDC</td>
</tr>
<tr>
<td>Compliance</td>
<td>UL1449 Type 4, Type 2 Location</td>
</tr>
<tr>
<td>Product Technologies</td>
<td>High-energy MOV Technology</td>
</tr>
<tr>
<td>Protection Mode</td>
<td>Single CM**</td>
</tr>
<tr>
<td>Max. Operating Voltage (U_o) DC</td>
<td>85 VDC</td>
</tr>
<tr>
<td>UL Nominal Discharge Current (I_l)</td>
<td>15 Impulses 8/20 μs</td>
</tr>
<tr>
<td>Max. Discharge Current (I_max)</td>
<td>1 Impulse 8/20 μs</td>
</tr>
</tbody>
</table>

*CM = Common Mode (+/PE or -/PE) and CM/DM = Common Mode and Differential Mode (+/– PE)

ELECTRICAL DIAGRAM

APPLICATIONS
- DC power applications
- Photovoltaic systems
- EV charging stations

MORE INFORMATION
- AC Power SPDs: Model 1250 Series SPD
- High-energy MOVs
- High-current GDTs
- Power TVS Diodes

NEW PRODUCT BRIEF

Bourns® 1420A Series DC Power SPDs for Photovoltaic Applications

PRODUCT DIMENSIONS & SCHEMATICS

Single Protection

V Configuration

Y Configuration

3D Models are available in STP format.