



**UL Listed to UL 1449-3 Photovoltaic Standard**  
(VZCA.E321351 & VZCA7.E321351)

- UL Listed as opposed to Recognized - avoids scrutiny over Technical Considerations of Recognized products
- Avoids Certification Surprises
- No Unexpected Installation Requirements

*Listed to UL 1449 as DC SPD for use in PV applications  
Options & Configurations for OEMs (see back)*

Does not require additional upstream fusing for SPD safety protection

- 100kA DC Short Circuit Current Rating (SCCR)
- Fail-Safe operation – arc breaking, slide-gate thermal disconnectors built-in
- Avoids safety challenges & fusing shortcomings of overseas-standard SPDs

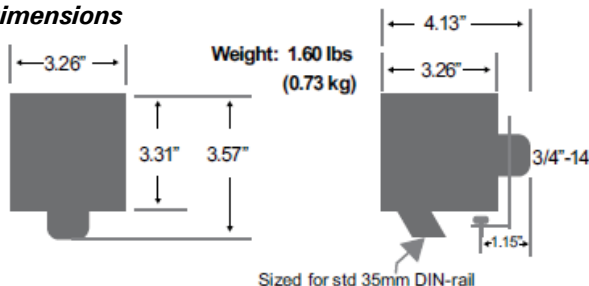
**Performance Specifications**

- 50kA 8x20µs Per Mode
- 300Vdc, 600Vdc, 1000Vdc & OEM models
- All modes of protection: DC+ – G, DC- – G, DC+ – DC-
- UL 1449 tested I<sub>n</sub>: 20kA (highest available)
- UL 1449 tested SCCR: 100kA DC
- UL 1449-3 Listed as Type 1 SPD
- UL 1449 Type 2 optional for cUL Mark
- Large-Block arrestor-grade 34mm square MOVs
- Individually Fused & Thermally Protected MOVs
- Repetitive Impulse: 5000 - 3kA-8x20µs; 1000 - 10kA-8x20µs
- Response Time: < 1nanosecond

**Monitoring Configurations**

- Standard - Low consumption LED; monitors every MOV
  - Illuminates when power is produced
- Options:
  - R – Removes LED and its circuitry
  - M – MOV Microswitch access option (requires R above)

**Dimensions**



**Physical Specifications**

- Relative Humidity Range: 0-95% non-condensing
- Operating Frequency: DC
- Operating Temperature: -40°C (-40°F) to +65°C (149°F)
- Solid State Bi-directional Operation
- NEMA 4X Polycarbonate Enclosure – UL746C(f1), UL 94-5VA
- Pre-wired with 3' (1m) of #8 AWG & #6 AWG ground conductor

**Tri-Mount Installation** - Mounting Kit Included



Std. 3/4"-14  
Nipple



DIN-rail Mount  
(rail not incl.)



Bracket Mount  
for flat surfaces

**Quality, Standards & Validation**

- 2 year warranty (longer optional)
- ANSI/IEEE C62.41.1-2002, C62.41.2-2002 & C62.45-2002
- Burn-In tested Prior to Shipment
- ISO 9001:2008 Quality Management System
- ISO 17025: Certified Test Lab
- IEC 61643, CE
- UL 96A Lightning Protection Master Label Eligible



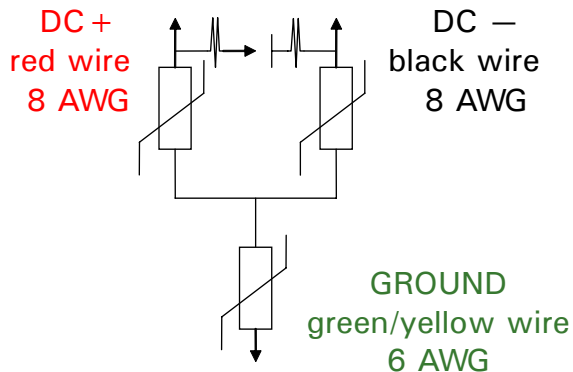
**Applications & Models:**

UL 1449-3 Model Number	S50A300VDC	S50A600VDC	S50A1000VDC
DC Voltage	0-300Vdc	0-600Vdc	0-1000Vdc
Maximum Continuous Operating Voltage	424Vdc	905Vdc	1188Vdc
Voltage Protection Level (Up) @ 6kV/3kA	< 1000Vp	< 2000Vp	< 2500Vp

**SPDEE DC Model Number Configurator & Options**

UL 1449:	S50A	Voltage	Options
	<b>50kA default</b>	<b>300VDC 600VDC 1000VDC</b>	<p>2 = Type 2 SPD bearing cULus Mark (for Canada)</p> <p>R = Removes LED and its circuitry Visual Monitoring via pop-up indicator tabs on each MOV.</p> <p>M = Microswitch option – requires R option above. Allows remote access to logic connected MOV diagnostics. Includes 20 AWG wires out of nipple. Power must be limited to 50mA at 12Vdc</p>
<p>Examples: - S50A300VDCRM = 50kA, 300Vdc, Remove LED, Microswitch Monitoring</p>			

**Schematic: All Modes of Protection**



Available Z Mounting Bracket Accessory



AC Voltage SPDEE's Also Available



**OEM & Brand Label Opportunities**  
Please call 800.237.4567