



UL Listed to UL 1449 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 and fusing shortcomings of overseas-standard SPDs

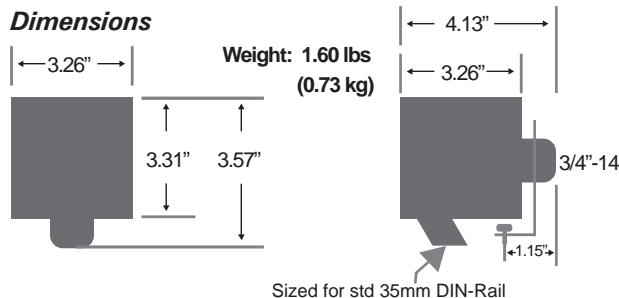
Performance Specifications

- 50kA 8x20µs Per Mode
- 300VDC, 600VDC, 1000VDC, 1500VDC & OEM models
- All modes of protection: DC+ – G, DC- – G, DC+ – DC-
- UL 1449 tested I_n : 20kA (1500V: 10kA)
- UL 1449 tested SCCR: 100kA DC
- UL 1449 Listed as Type 1 SPD
- UL 1449 Type 2 optional for cUL Mark
- Large-Block arrestor-grade 34mm square MOVs
- Individually Fused and Thermally Protected MOVs
- Repetitive Impulse: 5000 - 3kA-8 x 20µs; 1000 - 10kA-8 x 20µs
- 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) (1500VDC: -40°C (-40°F) to +85°C (185°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 (1500VDC: #10 AWG)

Tri-Mount Installation - Mounting Kit Included



Std. 3/4" - 14
Nipple



DIN-Rail Mount
(rail not included)



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 @ 20kA I_n



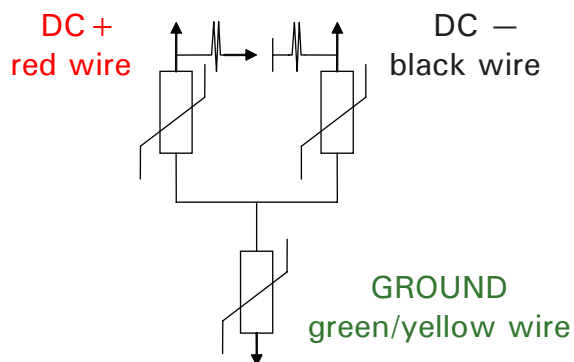
Applications & Models

UL 1449 Model Number	S50A300VDC	S50A600VDC	S50A1000VDC	S50A1500VDC
DC Voltage	0-300VDC	0-600VDC	0-1000VDC	0-1500VDC
Maximum Continuous Operating Voltage (V_{pvc})	424VDC	905VDC	1188VDC	1500VDC
Voltage Protection Level (Up) @ 6kV/3kA	< 1000Vp	< 2000Vp	< 2500Vp	< 3000Vp

SPDEE DC Model Number Configurator & Options

UL 1449	S50A	Voltage	Options
	50kA default	300VDC 600VDC 1000VDC 1500VDC	2 = Type 2 SPD bearing cULus Mark (for Canada). R = Removes LED and its circuitry Visual Monitoring via pop-up indicator tabs on each MOV. 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. G = For Grounding DC+ terminal of system (call).
Examples: - S50A300VDCRM = 50kA, 300VDC, Remove LED, Microswitch Monitoring - S50A1000VDC2 = 50kA, 1000VDC, Type 2 marking for Canada			

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