### Surge Protection Devices

#### SPD2 4+0 SERIES

**Class II/Type 2/Type 1 CA Pluggable Multi-Pole**

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**Description**

Surge protection devices (SPDs) provide equipment protection from transient overvoltage events lasting micro-seconds. By limiting the overvoltage to the equipment during these events, costly damage and downtime can be mitigated.

The surge protection devices for the 4+0 configuration are available for 120 V to 480 V nominal voltage sub-distribution board applications.

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**Features & Benefits**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capability to clamp and withstand high-energy transients</td>
<td>Ensures low-residual voltage during high-energy surge events and higher nominal discharge current to prevent disruption, downtime, and degradation or damage to equipment</td>
</tr>
<tr>
<td>UL Recognized and VDE-IEC compliant in single part number</td>
<td>One component can be utilized globally, reducing inventory needs and simplifying allocation of parts</td>
</tr>
<tr>
<td>Interlocking tab mechanism</td>
<td>Secures module to withstand vibration</td>
</tr>
<tr>
<td>No additional overcurrent protection devices required in UL applications</td>
<td>Reduces the number of components and costs required for protection</td>
</tr>
<tr>
<td>Compact footprint</td>
<td>Increases panel design flexibility</td>
</tr>
<tr>
<td>Visual life indicator</td>
<td>Quick visual determines module replacement status to avoid loss of protection</td>
</tr>
<tr>
<td>Pluggable modules</td>
<td>Fast and simple to replace, minimizing maintenance and downtime. No tools required</td>
</tr>
<tr>
<td>Thermal protection</td>
<td>Eliminates catastrophic failure</td>
</tr>
<tr>
<td>IP20 protection rating</td>
<td>Finger-safe design increases worker protection</td>
</tr>
</tbody>
</table>

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### Internal Configuration

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### Module & Base Ordering Information

<table>
<thead>
<tr>
<th>Ordering Number</th>
<th>IEC Electrical</th>
<th>UL Electrical</th>
<th>Single Unit Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal AC Voltage (U)</td>
<td>Maximum Continuous Operating AC Voltage (U)</td>
<td>Nominal Discharge Current (8/20 µs) (I&lt;sub&gt;n&lt;/sub&gt;)</td>
</tr>
<tr>
<td>SPD2-150-4P0-R</td>
<td>120 V</td>
<td>150 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-300-4P0-R</td>
<td>240 V</td>
<td>300 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-350-4P0-R</td>
<td>277 V</td>
<td>350 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-480-4P0-R</td>
<td>400 V</td>
<td>480 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-550-4P0-R*</td>
<td>480 V</td>
<td>550 V</td>
<td>20 kA</td>
</tr>
</tbody>
</table>
### Surge Protection Devices

#### SPD2 4+0 SERIES

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**Module & Base Part Numbering System**

- **SPD2 VVV XPZ R**
  - Series
  - Optional Remote Contact
    - Neutral (1=yes or 0=no)
  - Number of Poles

**Module Only Part Numbering System**

- **SPD2 VVV M**
  - Module Only
  - Maximum Continuous Operating AC Voltage

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**Replacement Module Ordering Information**

<table>
<thead>
<tr>
<th>Ordering Number</th>
<th>IEC Electrical</th>
<th>UL Electrical</th>
<th>Single Unit Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD2-150-M</td>
<td></td>
<td></td>
<td>54 g (0.120 lb)</td>
</tr>
<tr>
<td>SPD2-300-M</td>
<td></td>
<td></td>
<td>61 g (0.135 lb)</td>
</tr>
<tr>
<td>SPD2-350-M</td>
<td></td>
<td></td>
<td>66 g (0.146 lb)</td>
</tr>
<tr>
<td>SPD2-480-M</td>
<td></td>
<td></td>
<td>71 g (0.157 lb)</td>
</tr>
<tr>
<td>SPD2-550-M*</td>
<td></td>
<td></td>
<td>74 g (0.163 lb)</td>
</tr>
</tbody>
</table>

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**Specifications**

- **Network Systems**: IT, TN-S
- **Mode of Protection**: L-PE, N-PE
- **Nominal Discharge Current (8/20 µs) (Iₚ)**: 20 kA
- **Maximum Discharge Current (8/20 µs) (Iₚ_max)**: Up to 50 kA
- **Protective Elements**: High Energy MOV
- **Response Time (tₐ)**: < 25 ns
- **Back-Up Fuse (max)**: 315 A / 250 A Gg
- **Number of Ports**: 1

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**Mechanical & Environmental**

- **Operating Temperature Range (T_a)**: -40 °C to +80 °C (-40 °F to +185 °F)
- **Permissible Operating Humidity (RH)**: 5% to 95%
- **Altitude (max)**: 4,000 m (13,123 ft)
- **Terminal Screw Torque (M_max)**: 4.5 Nm (39.9 lbf-in)
- **Conductor Cross Section (max)**: 35 mm² (2 AWG) (Solid, Stranded)/25 mm² (4 AWG) (Flexible)
- **Mounting**: 35 mm DIN Rail, EN60715
- **Degree of Protection Housing Material**: Thermoplastic: Extinguishing Degree UL 94 V-0

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**Thermal Protection**

- **Operating State/Fault Indication**: Yes
- **Remote Contact Switching Capacity**: AC: 250 V/1 A, 125 V/1 A; DC: 48 V/0.5 A, 24 V/0.5 A, 12 V/0.5 A
- **Remote Contact Conductor Cross Section (max)**: 1.5 mm² (16 AWG) (Solid)

**Standards Passed**

- **IEC 61643-11:2011**
- **EN 61643-11:2012**
- **UL 1449, 4th edition; E320116**

**Product Dimensions**

- **4TE Module and Base**: Height 90.0 mm (3.54"), Width 72.0 mm (2.84"), Depth 4.00 mm (0.16")
- **1TE Replacement Module**: Height 45.0 mm (1.77"), Width 18.0 mm (0.71"), Depth 57.2 mm (2.25")

**Package Dimensions**

- **4TE Module and Base**: Height 102.0 mm (4.01"), Width 82.0 mm (3.23"), Depth 110.0 mm (4.33")
- **1TE Replacement Module**: Height 102.0 mm (4.01"), Width 28.0 mm (1.10"), Depth 110.0 mm (4.33")

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* SPD2-550-4P0-R and SPD2-550-M are UL Listed only

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