Surge Protection Devices
SPD 2P+0 SERIES

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

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 2+0 configuration are available for 120 V to 600 V nominal voltage sub-distribution board applications.

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>

Module & Base Ordering Information

<table>
<thead>
<tr>
<th>Ordering Number</th>
<th>IEC Electrical</th>
<th>UL Electrical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal AC Voltage (50/60Hz) (Uo)</td>
<td>Maximum Continuous Operating AC Voltage (U)</td>
</tr>
<tr>
<td>SPD2-150-2P0-R</td>
<td>120 V</td>
<td>150 V</td>
</tr>
<tr>
<td>SPD2-300-2P0-R</td>
<td>240 V</td>
<td>300 V</td>
</tr>
<tr>
<td>SPD2-350-2P0-R</td>
<td>277 V</td>
<td>350 V</td>
</tr>
<tr>
<td>SPD2-480-2P0-R</td>
<td>400 V</td>
<td>480 V</td>
</tr>
<tr>
<td>SPD2-550-2P0-R*</td>
<td>480 V</td>
<td>550 V</td>
</tr>
<tr>
<td>SPD2-750-2P0-R</td>
<td>600 V</td>
<td>750 V</td>
</tr>
</tbody>
</table>
Surge Protection Devices
SPD 2P+0 SERIES

Module & Base Part Numbering System

SPD2 VVV XPZ R

Series
Maximum Continuous
Operating AC Voltage

Optional Remote
Contact
Neutral (1=yes or 0=no)
Number of Poles

Module Only Part Numbering System

SPD2 VVV M

Series
Module Only
Maximum Continuous
Operating AC Voltage

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>120 V</td>
<td>150 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-300-M</td>
<td>240 V</td>
<td>300 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-350-M</td>
<td>277 V</td>
<td>350 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-480-M</td>
<td>400 V</td>
<td>480 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-550-M*</td>
<td>480 V</td>
<td>550 V</td>
<td>20 kA</td>
</tr>
<tr>
<td>SPD2-750-M</td>
<td>600 V</td>
<td>750 V</td>
<td>20 kA</td>
</tr>
</tbody>
</table>

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) (Iₚₖₐₓ)
Up to 50 kA
Protective Elements
High Energy MOV
Response Time (tᵢₚ)
< 25 ns
Back-Up Fuse (max)
315 A / 250 A Gg
Number of Ports
1

Mechanical & Environmental
Operating Temperature
Range (Tᵢₚ)
-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 (Mₘₚₑₓ)
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
IP20 (built-in)
Housing Material
Thermoplastic: Extinguishing Degree UL 94 V-0

Thermal Protection
Yes
Operating State/Fault
Indication
Green Flag/No Green Flag
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 (18 AWG) (Solid)
Standards Passed*
IEC 61643-11:2011
EN 61643-11:2012
UL 1449, 4th edition; E320116

Dimensions & Packaging
2TE Module and Base
H 90.0 mm (3.54”); W 36.0 mm (1.42”);
D 70.0 mm (2.76”)
1TE Replacement Module
H 45.0 mm (1.77”); W 18.0 mm (0.71”);
D 57.2mm (2.25”)

Package Dimensions
2TE Module and Base
H 102.0 mm (4.01”); W 46.0 mm (1.81”);
D 110.0 mm (4.33”)
1TE Replacement Module
H 102.0 mm (4.01”); W 28.0 mm (1.10”);
D 110.0 mm (4.33”)

Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/product-disclaimer.