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

The NEMA-style SPDN series for external panel mount is available for 120 V to 480 V nominal voltage sub-distribution board applications.

Features & Benefits

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>More direct modes of protection (L-N, N-G) in a smaller package</td>
<td>Increases protection and design flexibility</td>
</tr>
<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>Stacked Metal Oxide Varistor (MOV) design</td>
<td>Provides more high-transient voltage protection in a compact, multi-layered structure</td>
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<tr>
<td>Installs on the line or load side of the circuit breaker</td>
<td>Simplifies maintenance—without impacting the other parts of the electrical system—by turning breaker off during upkeep</td>
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<tr>
<td>Thermally protected MOV</td>
<td>Eliminates catastrophic failure</td>
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<td>External LED indicator</td>
<td>Quickly identifies service requirements to avoid loss of protection</td>
</tr>
<tr>
<td>Compact footprint</td>
<td>Offers easy retrofit in existing applications where space is limited</td>
</tr>
</tbody>
</table>

Applications
- Construction
- Food and Beverage
- HVAC/R
- Light Industrial
- Oil and Gas
- Water/Wastewater
Specifications

Maximum Surge Current Rating: Up to 50 kA per phase
I-nominal Rating: 20 kA
UL1449 Short Circuit Current Rating: 200 kA
Direct Modes of Protection: L-N, N-G
UL Type: Type 1
Audible Alarm: Standard
Protective Elements: Stacked High Energy MOV
Response Time (L-N / N-PE tA): < 25 ns

Mechanical & Environmental
Operating Temperature Range (Ta): -35 °C to +85 °C (-31 °F to +185 °F)
Operating Frequency: 50–60 Hz
Typical Connection: 18” #12 AWG (pre-wired pig tails)
Permissible Operating Humidity (RH): 0 % to 95 % non-condensing
Altitude (max): 4,000 m (13,123 ft)
Degree of Protection: IP20 (built-in)
Housing Material: Polycarbonate NEMA 4X – Lid ultrasonically sealed
Thermal Protection: Yes
Operating State/Fault Indication: 1 Green LED (for each phase)
Remote Contact Switching Capacity: Ac: 240 V/2 A, 125 V/1 A
Product Dimensions: H 3.25”; W 5.02”; D 2.93”
Product Weight: 1.0 lb
Package Dimensions: 4-3/8 x 3-1/2 x 9-1/2”
Package Weight: 1.3 lb

Certification & Compliance

cULus: UL 1449, 5th Edition; E320116

Part Numbering System

SPDN-C VVV-PC

Series
Nominal System Voltage
Phase Configuration
1P = Single Phase
2S = Split Phase
3Y = 3 Phase WYE
3D = 3 Phase Delta

Ordering Information

<table>
<thead>
<tr>
<th>ORDERING NUMBER</th>
<th>NOMINAL SYSTEM VOLTAGE</th>
<th>PHASE CONFIGURATION</th>
<th>MAXIMUM CONTINUOUS AC OPERATING VOLTAGE (MCOV)</th>
<th>VOLTAGE PROTECTION RATING (VPR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L-N</td>
<td>L-G</td>
</tr>
<tr>
<td>SPDN-C120-1P</td>
<td>120</td>
<td>Single Phase</td>
<td>180</td>
<td>700</td>
</tr>
<tr>
<td>SPDN-C120-2S</td>
<td>120/240</td>
<td>Split Phase</td>
<td>180</td>
<td>700</td>
</tr>
<tr>
<td>SPDN-C120-3Y</td>
<td>208/120</td>
<td>3 Phase WYE</td>
<td>150</td>
<td>600</td>
</tr>
<tr>
<td>SPDN-C240-1P</td>
<td>240</td>
<td>Single Phase</td>
<td>350</td>
<td>1200</td>
</tr>
<tr>
<td>SPDN-C240-3D</td>
<td>240</td>
<td>3 Phase Delta</td>
<td>275</td>
<td>1200</td>
</tr>
<tr>
<td>SPDN-C277-3Y</td>
<td>480/277</td>
<td>3 Phase WYE</td>
<td>350</td>
<td>1200</td>
</tr>
<tr>
<td>SPDN-C480-3D</td>
<td>480</td>
<td>3 Phase Delta</td>
<td>550</td>
<td>1800</td>
</tr>
</tbody>
</table>
Surge Protective Devices
SPDN-C Series

Dimensions Inches [mm]

3/4" NPT THREADS

- 5.02 [127.5]
- 4.20 [106.7]
- 3.25 [82.6]
- 3.25 [82.6]


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