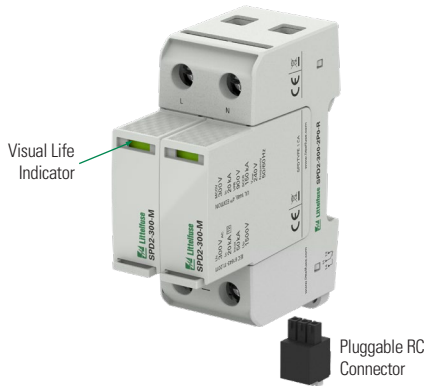
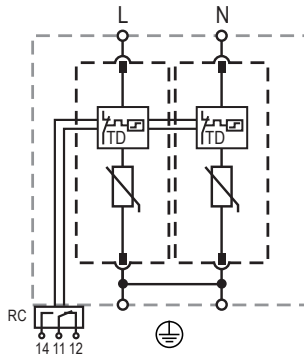


## SPD2 2P+0 SERIES

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



### Internal Configuration



#### Legend

- L Line
- N Neutral
- ⊕ Protective Earth
- RC Remote Contacts
- TD Thermal Disconnection

### 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

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

### Module and Base Ordering Information

| Ordering Number | IEC Electrical                             |   |  |  |                                    |   |                             |                              | UL Electrical                                  |                                 |  |                                     | Single Unit Weight |
|-----------------|--|---|--|--|------------------------------------|---|-----------------------------|------------------------------|--|---------------------------------|--|-------------------------------------|--------------------|
|                 | Nominal AC Voltage (50/60Hz) ( $U_n/U_r$ ) | Maximum Continuous Operating AC Voltage ( $U_c$ ) | Nominal Discharge Current (8/20 $\mu$ s) ( $I_n$ ) | Maximum Discharge Current (8/20 $\mu$ s) ( $I_{max}$ ) | Voltage Protection Level ( $U_p$ ) | Short-Circuit AC Current Rating ( $I_{SCR}$ ) | TOV Withstand 5 s ( $U_T$ ) | TOV 120 min ( $U_T$ ) / Mode | Maximum Continuous AC Operating Voltage (MCOV) | Voltage Protection Rating (VPR) | Nominal Discharge Current (8/20 $\mu$ s) ( $I_n$ ) | Short-Circuit Current Rating (SCCR) |                    |
| SPD2-150-2P0-R  | 120 V                                      | 150 V   | 20 kA  | 50 kA  | 1250 V                             | 25 kA / 50 kA                                 | 229 V                       | 229 V / Withstand            | 150 V  | 600 V                           | 20 kA  | 200 kA                              | 252 g (0.556 lb)   |
| SPD2-300-2P0-R  | 240 V                                      | 300 V   | 20 kA  | 50 kA  | 1500 V                             | 25 kA / 50 kA                                 | 337 V                       | 442 V / Safe Fail            | 300 V  | 900 V                           | 20 kA  | 150 kA                              | 266 g (0.587 lb)   |
| SPD2-350-2P0-R  | 277 V                                      | 350 V   | 20 kA  | 50 kA  | 1750 V                             | 25 kA / 50 kA                                 | 403 V                       | 529 V / Safe Fail            | 350 V  | 1000 V                          | 20 kA  | 200 kA                              | 276 g (0.609 lb)   |
| SPD2-480-2P0-R  | 400 V                                      | 480 V   | 20 kA  | 50 kA  | 2300 V                             | 25 kA / 50 kA                                 | 581 V                       | 762 V / Safe Fail            | 480 V  | 1500 V                          | 20 kA  | 200 kA                              | 286 g (0.631 lb)   |
| SPD2-550-2P0-R* | 480 V                                      | 550 V   | 20 kA  | 50 kA  | 2500 V                             | 25 kA / 50 kA                                 | 697 V                       | 915 V / Safe Fail            | 550 V  | 2000 V                          | 20 kA  | 200 kA                              | 290 g (0.639 lb)   |
| SPD2-750-2P0-R  | 600 V                                      | 750 V   | 20 kA  | 35 kA  | 3400 V                             | 25 kA / 50 kA                                 | 871 V                       | 1143 V / Safe Fail           | 750 V  | 2500 V                          | 20 kA  | 200 kA                              | 318 g (0.702 lb)   |

## SPD2 2P+0 SERIES

### Replacement Module Ordering Information

| Ordering Number | IEC Electrical                         |   |  |  |                                    |  |                             |                              | UL Electrical                                  |                                 |  |                                     | Single Unit Weight |
|-----------------|--|---|--|--|------------------------------------|--|-----------------------------|------------------------------|--|---------------------------------|--|-------------------------------------|--------------------|
|                 | Nominal AC Voltage (50/60Hz) ( $U_n$ ) | Maximum Continuous Operating AC Voltage ( $U_c$ ) | Nominal Discharge Current (8/20 $\mu$ s) ( $I_n$ ) | Maximum Discharge Current (8/20 $\mu$ s) ( $I_{max}$ ) | Voltage Protection Level ( $U_p$ ) | Short-Circuit AC Current Rating ( $I_{scpr}$ ) | TOV Withstand 5 s ( $U_1$ ) | TOV 120 min ( $U_1$ ) / Mode | Maximum Continuous AC Operating Voltage (MCOV) | Voltage Protection Rating (VPR) | Nominal Discharge Current (8/20 $\mu$ s) ( $I_n$ ) | Short-Circuit Current Rating (SCCR) |                    |
| SPD2-150-M      | 120 V                                  | 150 V   | 20 kA  | 50 kA  | 1250 V                             | 25 kA / 50 kA                                  | 229 V                       | 229 V / Withstand            | 150 V  | 600 V                           | 20 kA  | 200 kA                              | 54 g (0.120 lb)    |
| SPD2-300-M      | 240 V                                  | 300 V   | 20 kA  | 50 kA  | 1500 V                             | 25 kA / 50 kA                                  | 337 V                       | 442 V / Safe Fail            | 300 V  | 900 V                           | 20 kA  | 150 kA                              | 61 g (0.135 lb)    |
| SPD2-350-M      | 277 V                                  | 350 V   | 20 kA  | 50 kA  | 1750 V                             | 25 kA / 50 kA                                  | 403 V                       | 529 V / Safe Fail            | 350 V  | 1000 V                          | 20 kA  | 200 kA                              | 66 g (0.146 lb)    |
| SPD2-480-M      | 400 V                                  | 480 V   | 20 kA  | 50 kA  | 2300 V                             | 25 kA / 50 kA                                  | 581 V                       | 762 V / Safe Fail            | 480 V  | 1500 V                          | 20 kA  | 200 kA                              | 71 g (0.157 lb)    |
| SPD2-550-M*     | 480 V                                  | 550 V   | 20 kA  | 50 kA  | 2500 V                             | 25 kA / 50 kA                                  | 697 V                       | 915 V / Safe Fail            | 550 V  | 2000 V                          | 20 kA  | 200 kA                              | 74 g (0.163 lb)    |
| SPD2-750-M      | 600 V                                  | 750 V   | 20 kA  | 35 kA  | 3400 V                             | 25 kA / 50 kA                                  | 871 V                       | 1143 V / Safe Fail           | 750 V  | 2500 V                          | 20 kA  | 200 kA                              | 87 g (0.192 lb)    |

### Specifications

|  |  |
|--|--|
| <b>Network Systems</b>   | TN-S   |
| <b>Mode of Protection</b>  | L-PE, N-PE   |
| <b>Nominal Discharge Current (8/20 <math>\mu</math>s) (<math>I_n</math>)</b>     | 20 kA  |
| <b>Maximum Discharge Current (8/20 <math>\mu</math>s) (<math>I_{max}</math>)</b> | Up to 50 kA  |
| <b>Protective Elements</b>   | High Energy MOV  |
| <b>Response Time (<math>t_A</math>)</b>  | < 25 ns  |
| <b>Back-Up Fuse (max)</b>  | 315 A / 250 A Gg   |
| <b>Number of Ports</b>   | 1  |
| <b>Mechanical &amp; Environmental</b>  |  |
| <b>Operating Temperature Range (<math>T_o</math>)</b>                            | -40°C to +80°C (-40°F to +185°F)   |
| <b>Permissible Operating Humidity (RH)</b>                                       | 5% to 95%  |
| <b>Altitude (max)</b>  | 4,000 m (13,123 ft)  |
| <b>Terminal Screw Torque (<math>M_{max}</math>)</b>                              | 4.5 Nm (39.9 lbf-in)   |
| <b>Conductor Cross Section (max)</b>   | 35 mm <sup>2</sup> (2 AWG) (Solid, Stranded)/<br>25 mm <sup>2</sup> (4 AWG) (Flexible) |
| <b>Mounting</b>  | 35 mm DIN Rail, EN60715  |
| <b>Degree of Protection</b>  | IP20 (built-in)  |
| <b>Housing Material</b>  | Thermoplastic: Extinguishing Degree<br>UL 94 V-0                                       |
| <b>Thermal Protection</b>  | Yes  |
| <b>Operating State/Fault Indication</b>  | Green Flag/No Green Flag   |
| <b>Remote Contact Switching Capacity</b>   | AC: 250 V/1 A, 125 V/1 A;<br>DC: 48 V/0.5 A, 24 V/0.5 A, 12 V/0.5 A                    |
| <b>Remote Contact Conductor Cross Section (max)</b>                              | 1.5 mm <sup>2</sup> (16 AWG) (Solid)   |

|                          |   |
|--------------------------|---|
| <b>Standards Passed*</b> | IEC 61643-11:2011<br>EN 61643-11:2012<br>UL 1449, 4th edition |
|--------------------------|---|

#### Dimensions & Packaging

|                               |   |
|-------------------------------|---|
| <b>2TE Module and Base</b>    | <b>H</b> 90.0 mm (3.54"); <b>W</b> 36.0 mm (1.42");<br><b>D</b> 70.0 mm (2.76")   |
| <b>1TE Replacement Module</b> | <b>H</b> 45.0 mm (1.77"); <b>W</b> 18.0 mm (0.71");<br><b>D</b> 57.2mm (2.25")    |
| <b>2TE Module and Base</b>    | <b>H</b> 102.0 mm (4.01"); <b>W</b> 46.0 mm (1.81");<br><b>D</b> 110.0 mm (4.33") |
| <b>1TE Replacement Module</b> | <b>H</b> 102.0 mm (4.01"); <b>W</b> 28.0 mm (1.10");<br><b>D</b> 110.0 mm (4.33") |

\*SPD2-550-2P0-R and SPD2-550-M are UL Listed only

Warranty – Visit [www.littelfuse.com/warranty](http://www.littelfuse.com/warranty) for details.

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