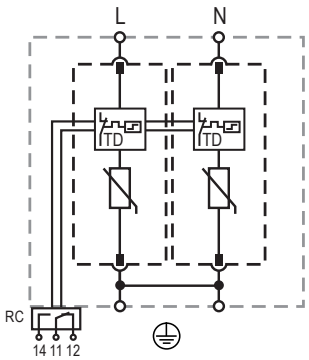
# Surge Protection Devices
## SPD2 2P+0 SERIES

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

## Module & Base Ordering Information

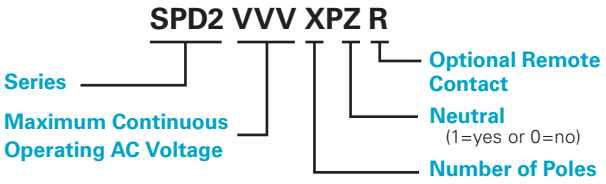
| Ordering Number | IEC Electrical | | | | | | | | UL Electrical | | | | Single Unit Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal AC Voltage (50/60Hz) ($U_o$/$U_n$) | Maximum Continuous Operating AC Voltage ($U_c$) | Nominal Discharge Current (8/20 µs) ($I_n$) | Maximum Discharge Current (8/20 µs) ($I_{max}$) | Voltage Protection Level ($U_p$) | Short-Circuit AC Current Rating ($I_{SCCR}$) | 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 µs) ($I_n$) | 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) |



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# Surge Protection Devices
SPD2 2P+0 SERIES

## Module & Base Part Numbering System




## Module Only Part Numbering System




## Replacement Module Ordering Information

| Ordering Number | IEC Electrical | | | | | | | | UL Electrical | | | | Single Unit Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal AC Voltage (50/60Hz) ($U_o$/$U_n$) | Maximum Continuous Operating AC Voltage ($U_c$) | Nominal Discharge Current (8/20 µs) ($I_n$) | Maximum Discharge Current (8/20 µs) ($I_{max}$) | Voltage Protection Level ($U_p$) | Short-Circuit AC Current Rating ($I_{SCCR}$) | 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 µs) ($I_n$) | 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

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

### 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** 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 (16 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")

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

**Warranty** – Visit **www.littelfuse.com/warranty** for details.

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