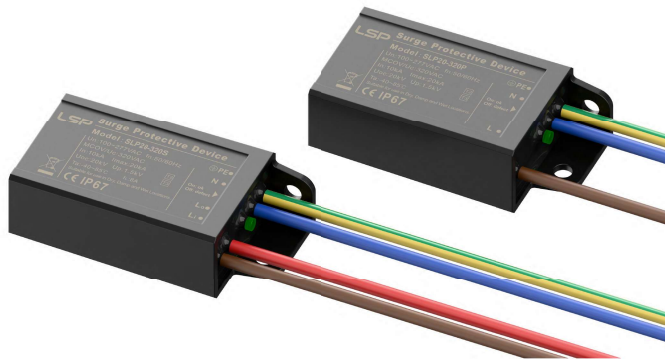


## LED Surge Protection Module

### SLP20-320x

Class II • Class III • Type 2 • Type 3



- Applicable to class I or II luminaire
- Protection mode: L-N, L-PE, N-PE
- Built in thermal separation function, higher safety
- Parallel and series connection mode optional, with its own lead
- Excellent surge impact resistance and low residual voltage
- Miniature size and convenient for embedded installation
- IP67 Water-proof and Dust-proof

SLP20-320 series thermally protected Surge Protective Device is specially designed to be used in outdoor and commercial LED lighting fixtures for transient overvoltage protection. It is mainly composed of thermally protected varistors and gas discharge tube components. Its built-in thermal disconnect function provides additional protection to prevent catastrophic failure and fire hazard even under the extreme circumstances of varistor end-of-life or sustaining over voltage conditions. The product is connected with LED power driver to provide reliable lightning surge protection, which can effectively prolong the service life and stability of luminaires.

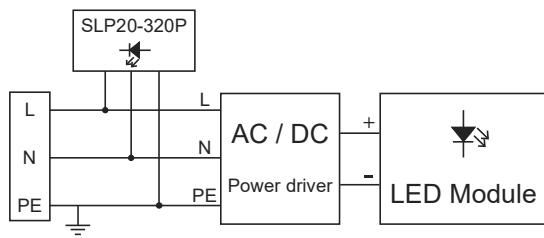
#### Technical Data

SLP20-320x		SLP20-320P	SLP20-320S
IEC Electrical			
Nominal Operating Voltage (50/60 Hz)	U <sub>n</sub>	100-277 V	100-277 V
Max Continuous Operating Voltage (50/60 Hz)	U <sub>c</sub>	320 V	320 V
Rated Load Current	I <sub>L</sub>	-	8 A
Nominal Discharge Current (8/20 μs)	I <sub>n</sub>	10 kA	10 kA
Max Discharge Current (8/20 μs)	I <sub>max</sub>	20 kA	20 kA
Open-Circuit Voltage (1.2/50 μs & 8/20 μs)	U <sub>oc</sub>	20 kV	20 kV
Voltage Protection Level (@I <sub>n</sub> )	(L-N, L/N-PE) U <sub>p</sub>	≤1.5 kV	≤1.5 kV
Follow Current Extinguishing Capability	(N-PE) I <sub>fi</sub>	100 A <sub>rms</sub>	100 A <sub>rms</sub>
TOV Withstand Voltage 5 s	(L-N) U <sub>T</sub>	337 V	337 V
TOV Safe Failure 120 min	(L-N) U <sub>T</sub>	442 V	442 V
SPD according to IEC/EN61643-11...GB/T18802.11		Type 2 + Type 3 / Class II + Class III	
Mechanical & Environmental			
Operating State / Fault Indication		On normally, Off fault	
Connecting Wires		02 (RV) 1.5 mm <sup>2</sup>	
Connection Mode		Parallel connection	
Enclosure Material		Thermoplastic UL 94 V-0	
Operating Temperature Range		-40 °C to +85 °C	
Degree of Protection		IP67	
Order Information			
Ordering Code		SLP20-320P	SLP20-320S
SLP20-320x		2032015	2032016

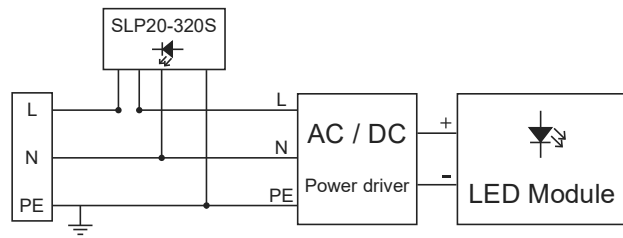


## SLP20-320x

### Application / Installation Schematic



Parallel connection

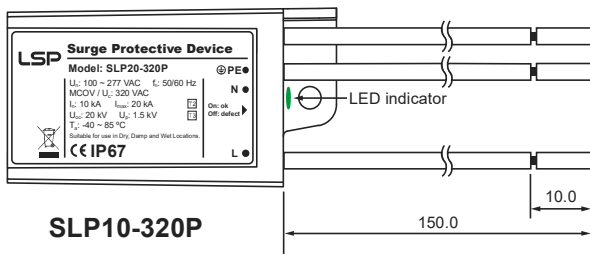


Series connection

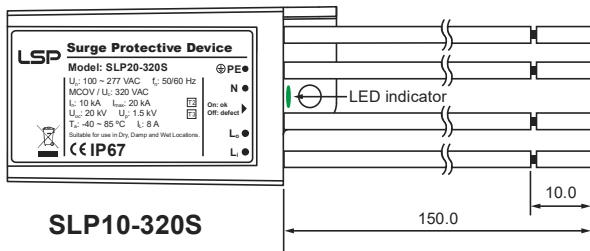
Installation instructions:

1. SPD should be installed near the AC side of LED power driver.
2. Parallel: Brown-phase line (L); Blue-neutral line (N); Yellow & green-ground line (PE).
3. Series: Brown-phase line (L); Red-phase line (L<sub>N</sub>); Blue-neutral line (N); Yellow & green-ground line (PE)
4. Fixed with one M4 screw.

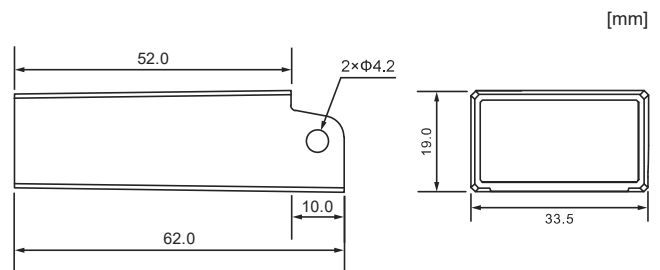
### Dimensions & Packaging



SLP10-320P



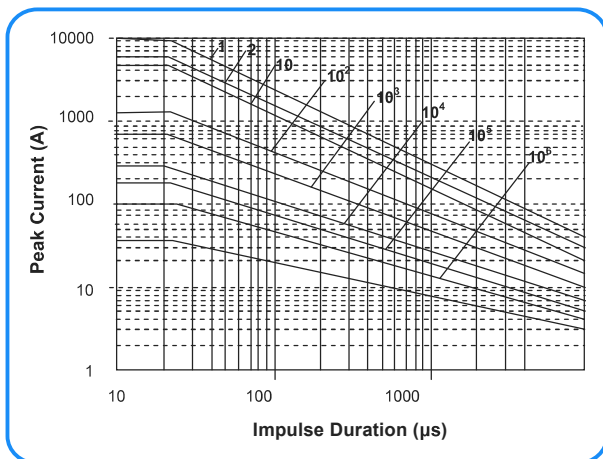
SLP10-320S



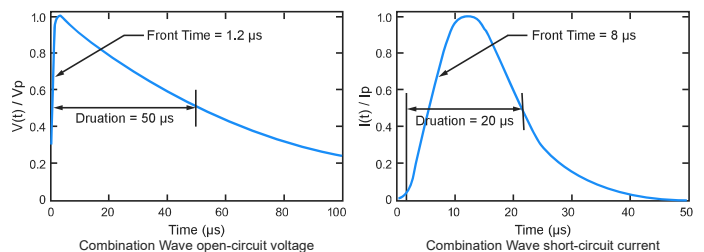
#### Complete Unit

SLP20-320x	SLP20-320P	SLP20-320S
Weight (One Piece)	62 g	70 g
Packaging Dimensions (H × W × L)	[428 × 222 × 205 mm]	
Packing Quantity	200 pcs/CTN	

### Repetitive Surge Capability



### Test Waveform



#### Lightning surge test (8/20 μs)

Surge	Strikes
20000 A	1
15000 A	2
10000 A	15

#### Lightning surge test (8/20 μs & 1.2/50 μs)

Surge	Strikes
10 kA / 20 kV	120

Notes: IEC 61000-4-5 surge immunity test waveforms: 1.2/50 μs open circuit voltage and 8/20 μs short circuit current.