

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.

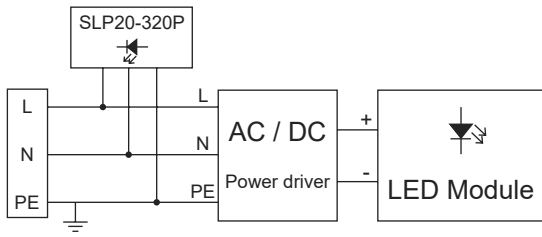
Technical Data

SLP20-320x	SLP20-320P	SLP20-320S	
IEC Electrical			
SPD according to IEC/EN 61643-11	Class II+III / Type 2+3		
Nominal Operating Voltage (50/60 Hz)	U_n	100-277 V	
Maximum Continuous Operating Voltage (50/60 Hz)	U_c	320 V	
Rated Load Current	I_L	-	8 A
Nominal Discharge Current (8/20 μ s)	I_n	10 kA	
Maximum Discharge Current (8/20 μ s)	I_{max}	20 kA	
Open-Circuit Voltage (1.2/50 μ s & 8/20 μ s)	U_{oc}	20 kV	
Voltage Protection Level (@ I_n)	(L-N, L/N-PE) U_p	≤ 1.5 kV	
Follow Current Extinguishing Capability	(N-PE) I_{fi}	100 A _{rms}	
TOV Withstand Voltage 5 s	(L-N) U_T	337 V	
TOV Safe Failure 120 min	(L-N) U_T	442 V	
Mechanical & Environmental			
Operating State / Fault Indication	On normally, Off fault		
Connecting Wires	02 (RV) 1.5 mm ²		
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	2032061	2032062	

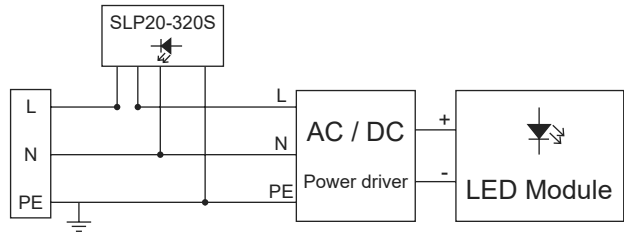


SLP20-320x

Application / Installation Schematic



Parallel connection

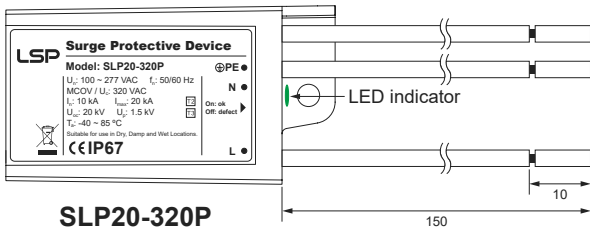


Series connection

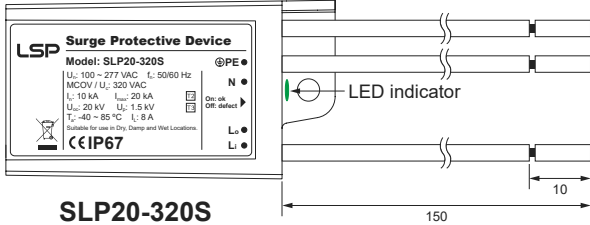
Installation instructions:

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 (L₁); Red-phase line (L₂); Blue-neutral line (N); Yellow & green-ground line (PE).
4. Fixed with one M4 screw.

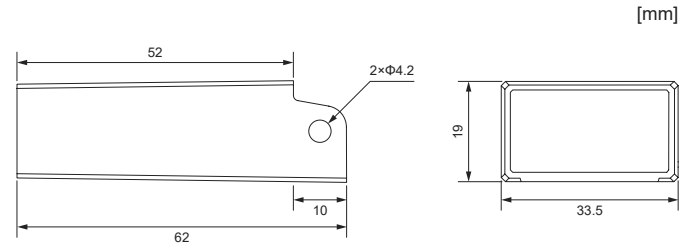
Dimensions & Packaging



SLP20-320P

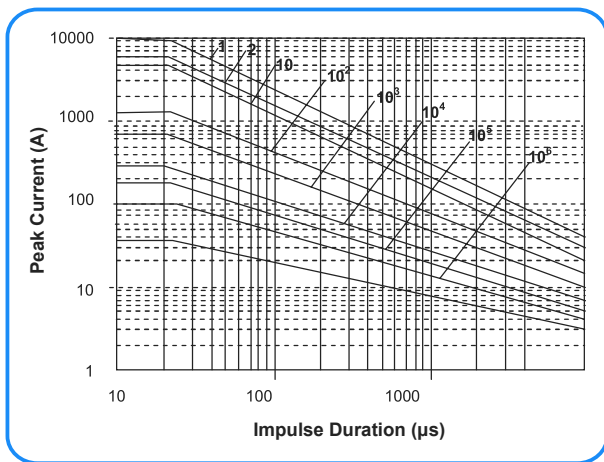


SLP20-320S

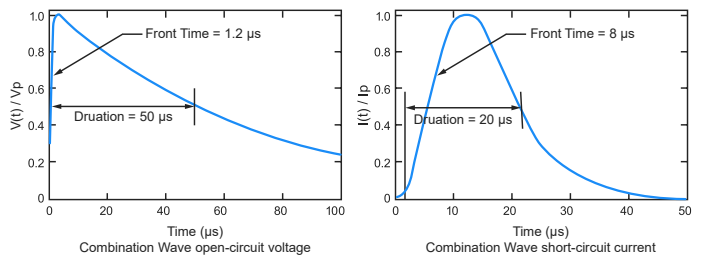


Complete Unit		
SLP20-320x	SLP20-320P	SLP20-320S
Weight (One Piece)	62 g	70 g
Packaging Dimensions (H × W × L)	[428 × 222 × 205 mm]	
Packing Quantity	200 pcs/CTN	

Repetitive Surge Capability



Test Waveform



Lightning surge test (8/20 μs)		Lightning surge test (8/20 μs & 1.2/50 μs)	
Surge	Strikes	Surge	Strikes
20000 A	1	10 kA / 20 kV	120
15000 A	2		
10000 A	15		

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