

LSP10 Module Series

LED Lighting Surge Protection Module

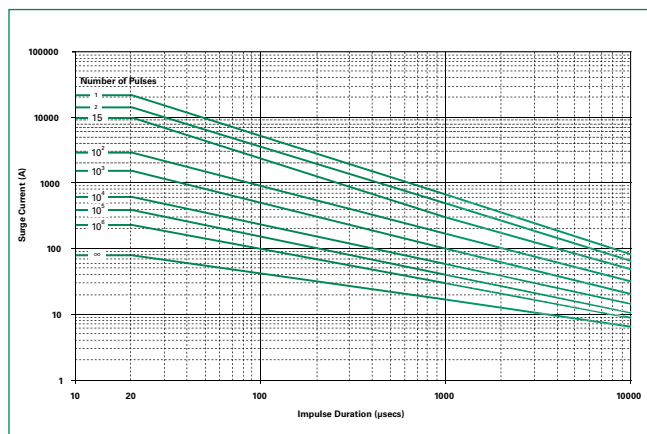
LSP10 Series Device Ratings & Specifications

Part Number ⁸	Operating Voltage (VAC)	MCOV/Uc (VAC) ⁶	Maximum Discharge Current (Imax)(A) ³	Nominal Discharge Current (In)(A) ²	MLV (V) ⁴	Up (V) ⁵	Safety Compliance	
							IEC/EN 61643-11 ⁷	UL1449
LSP10120*	120	150	20,000	10,000	L-N:740 L-G:740 N-G:670	900	-	X
LSP10240*	240	275	20,000	10,000	L-N:1130 L-G:1130 N-G:1060	1200	X	X
LSP10277*	277	320	20,000	10,000	L-N:1330 L-G:1330 N-G:1260	1400	X	X
LSP10347*	347	420	20,000	10,000	L-N:1750 L-G:1750 N-G:1680	1900	-	X
LSP10480*	480	510	20,000	10,000	L-N:2020 L-G:2020 N-G:1960	2100	-	X
LSP10240LLP	L-L: 240	L-L: 275	20 000	10 000	L-L: 1130	L-L: 1200	-	X
	L-N/G: 120	L-N/G: 150			L-N/G: 740	L-N/G: 900	-	X
LSP10240LLS	L-L: 240	L-L: 275	20 000	10 000	L-L: 1260	L-L: 1200	-	X
	L-N/G: 120	L-N/G: 150			L-N/G: 740	L-N/G: 900	-	X
LSP10480LLP	L-L:480	L-L:510	20,000	10,000	L-L:2020	L-L:2100	-	X
	L-N/G:277	L-N/G:320			L-N/G:1330	L-N/G:1400	-	X
LSP10480LLS	L-L:480	L-L:510	20,000	10,000	L-L:2030	L-L:2100	-	X
	L-N/G:277	L-N/G:320			L-N/G:1480	L-N/G:1400	-	X

Notes:

- 5A max. continuous current for series connection.
- Nominal Discharge Current (In)(A): The nominal discharge current is a measure of the SPDs endurance capability; 15 impulses of discharge current uses the 8/20us current waveform.
- Maximum Discharge Current (Imax)(A): The maximum discharge current is a measure of the SPDs maximum capability; single impulse of discharge current uses the 8/20us current waveform. All Devices pass maximum discharge current with possible, safe opening of thermal disconnect.
- MLV – UL1449 Measured limiting voltage; the highest value of residual voltage measurements during the application of impulses of 8/20us nominal discharge current (In); an average voltage value of 15 impulses.
- Up – IEC 61643-11 Voltage protection level; the highest value of residual voltage measurements during the application of impulses of 8/20us nominal discharge current (In); a rounding voltage value of maximum measurement.
- MCOV/UC: Maximum Continuous Operating Voltage - maximum r.m.s. voltage that could be continuously applied to the SPD.
- The series modules can be used in parallel connections for the indication circuit connection.
- * = - P or PM
- Repetitive Surge Withstanding: 15 strikes at 10,000A (8/20us) with steady MLV/Up.
- LSP10480* passed Operational Voltage Test (552Vac, 30 minutes) based on UL 1449 4th edition clause 43.

Figure 1.
Repetitive Surge Capability for LSP10

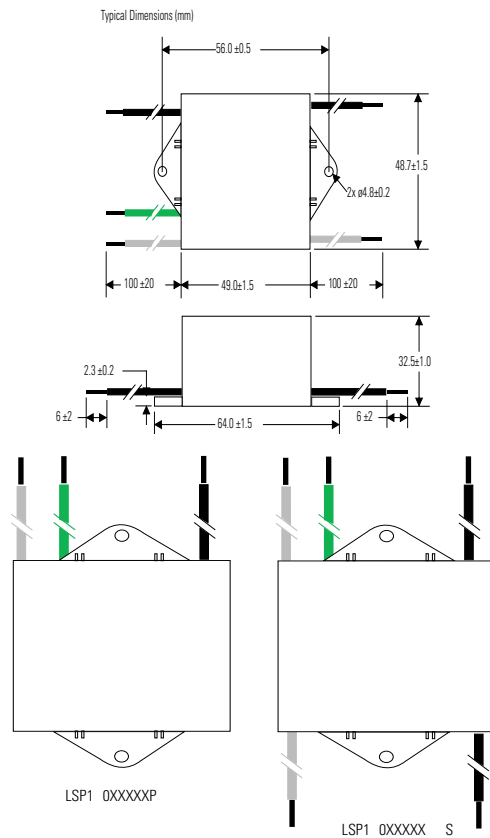


Pulse Rating (8x20µSec)	
Strikes	Surge
1	20,000A
2	15,000A
15	10,000A
100	3,000A
1,000	1,600A
10,000	650A
100,000	400A
1,000,000	240A

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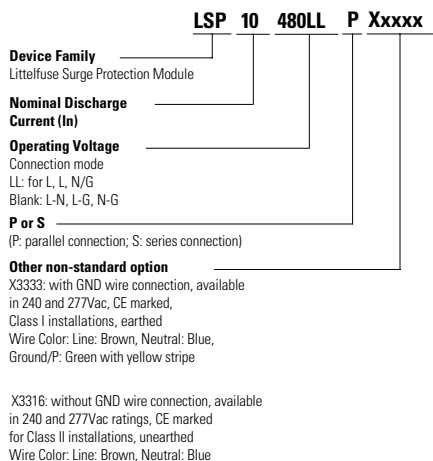
Dimensions



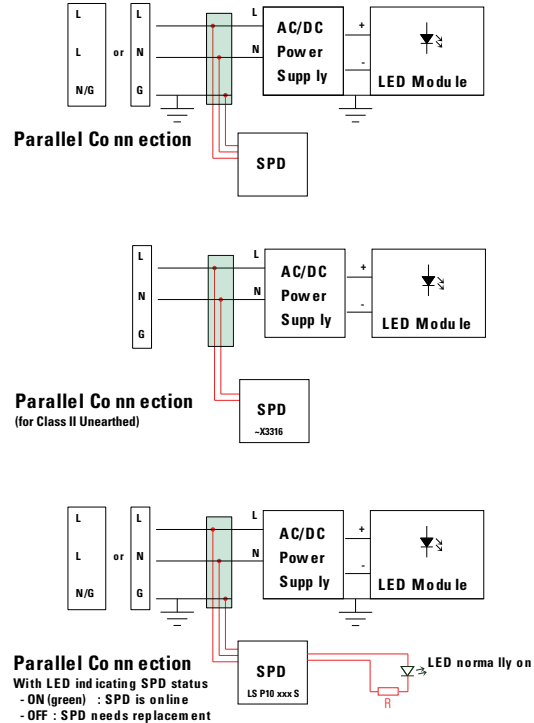
Notes:

1. Black: Line; White: Neutral; Green: Ground.
(P/N with suffix X3333/X3316: Brown: Line; Blue: Neutral; Green-Yellow stripe: Ground)
2. Wire Gauge: AWG16 wire Line in/out; Wire Length: 100mm or customized.

Part Numbering System

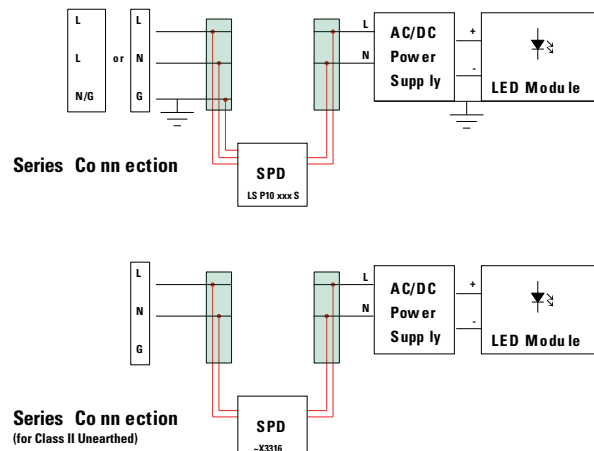


Application/Installation Schematic



Notes:

1. Series module used in parallel connection for indication circuit connection.
2. LED indicator and associated circuitry are not included in the module.
3. Black wire is AC line voltage (hot); white wire is AC neutral voltage.
4. Black wire voltage is cut off when SPD needs replacement.
5. R is current limiting resistor; its resistance/wattage is determined by AC line voltage and desired current driving LED. Example: AC line voltage 240V, LED: 1.6mA, resistor: 150Kohm/0.5W.



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