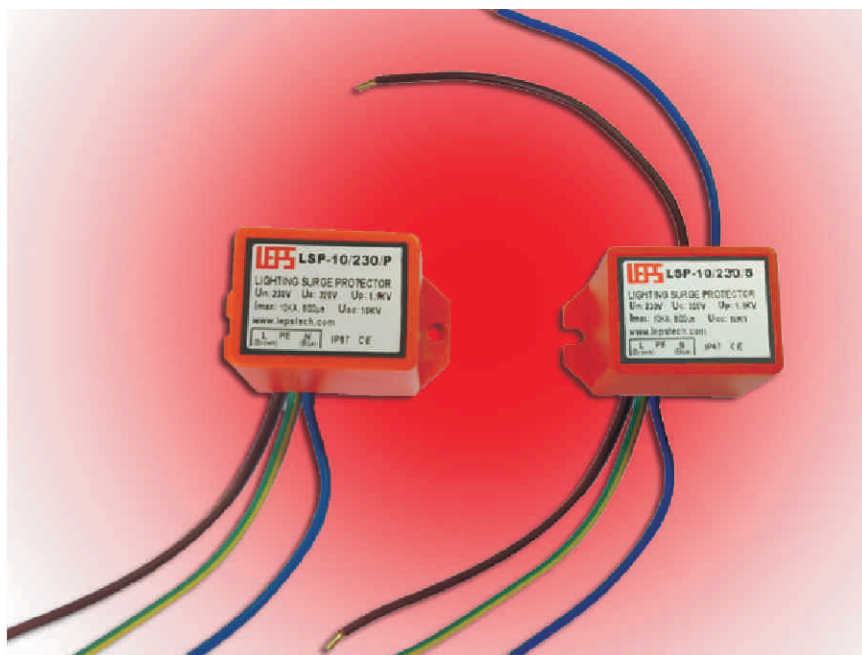


# LIGHTING SURGE PROTECTION MODULE



LSP series protection module is designed to offer surge and transients protection for LED lighting systems like LED signage, street lighting, traffic light, roadway lighting, parking garage lighting

- ◆ All mode protection
- ◆ Highest safety standard design
- ◆ Install in parallel or series
- ◆ LED status indication
- ◆ Remote monitoring option
- ◆ Leakage current free design
- ◆ Compact size to fit in limited space
- ◆ Different voltage range to choose



**All mode protection** - LEPS LSP series lighting surge protection module provides state-of-the-art protection for any LED lighting applications by rapidly diverts excess transient surges to ground that exist between live to ground, neutral to ground, away from your sensitive control and driver circuitry.

**Highest safety standard design** - It has been engineered to the industry's safest criteria for full compliance with UL1449 and IEC61643-11 by using approved components. Also with its patented thermal and short circuit fusing included, it ensures safe isolation during sustained abnormal over-voltage events and component failure.

**Install in parallel or series** - It has parallel or series protection models to meet different customers specific requirements in different countries. The series-protection models will disconnect power to the load under fault conditions while the parallel-protection models will isolate themselves from the load leaving power to the load

**LED status indication** - All models have LED indicators to monitor the

integrity of protection.

**Remote monitoring option** - Models with suffix A features voltage free contacts with normal open/normal close contacts which change state to indicate a fault. It can be interfacing with intelligent LED management systems for remote indication.

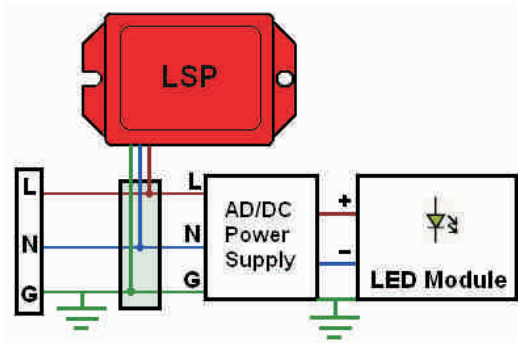
**Leakage current free design** - ALL LSP has no leakage current to ground so as to avoid possible dangerous contact voltage shock.

**Compact size to fit in limited space** - LSP modules are very compact in size to fit in any confined equipment enclosures.

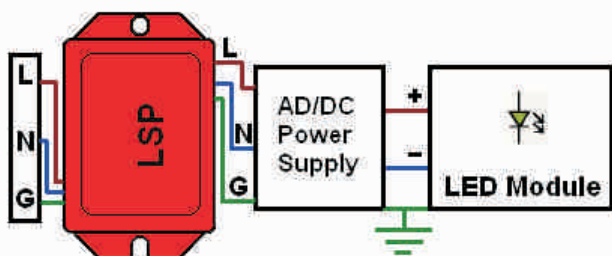
**Different voltage range to choose** - With different voltage range to meet different lighting voltage design, users from different countries are fully satisfied,

## Installation

The lighting surge protectors are connected in parallel or series with the protected lighting driver (load) as illustrated below:

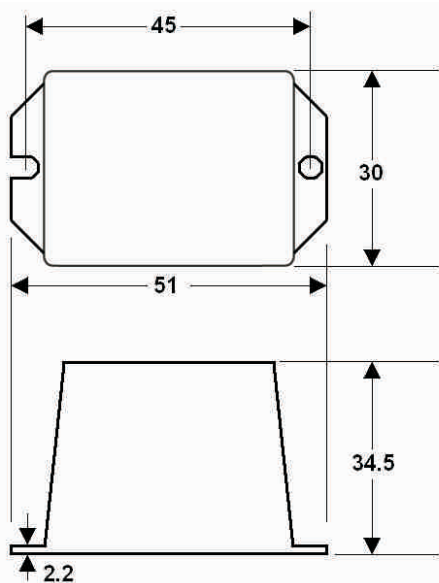


Connected in Parallel



Connected in Series

## Dimensions



## Voltage range

MODEL	WORKING VOLTAGE	MAXIMUM CONTINUOUS WORKING VOLTAGE, (U <sub>c</sub> )	VOLTAGE PROTECTION LEVEL, (U <sub>p</sub> )
LSP-10/V150	80-150V	150V	0.5KV
LSP-10/V320	180-320V	320V	1.1KV
LSP-10/V480	270-480V	480V	1.2KV

## General Specifications

SPD class(EN/IEC):	ClassII+III/Type 2+3
Nominal voltage, U <sub>n</sub> :	LSP-10/V150 110V LSP-10/V320 240V LSP-10/V480 360V
Max. working voltage, U <sub>c</sub> :	See Voltage range
Voltage protection level, U <sub>p</sub> :	See Voltage range
Open circuit-test Voltage , U <sub>oc</sub> :	10KV (1.2/50μs)
Max. load current, I <sub>L</sub> :	3A
Operating frequency:	40-60Hz
Earth leakage current:	0μA
Max. discharge current, I <sub>max</sub> :	10KA (8/20μs)
Nominal discharge current, I <sub>n</sub> :	5KA (8/20μs)
Protection mode:	L-N, L-E, N-E
Response time, t <sub>a</sub> :	<25ns
Standards compliance:	BS6651-1999 cat.A.B.C AS1768-2003 cat.A.B.C IEEE C62.41 cat.A.B.C CP33-1999 cat.A.B.C IEC 61643-11 class II, III UL1449 2nd & 3rd edition
Status indicator:	Green LED (on=OK, off=Fault)
Optional Alarm(volt free contact):	N/O, N/C(1A @250Vac)
Alarm conductor size:	1mm <sup>2</sup>
Conductor size:	1.5mm <sup>2</sup> (stranded)
Case material:	Thermal Plastic UL94-V0
Mounting:	Screw
IP rating:	IP67
Back up overcurrent protection:	16AgL/gG
Operating temperature, T <sub>u</sub> :	-40-85°C
Humidity:	0-95%(R.H.)
Altitude:	0-3650m
Weight:	~68g

# ORDERING INFORMATION



MODEL	PRODUCT DESCRIPTION	PHOTO/DRAWING
LSP-10V150/P	LED lighting surge protection module, 10KA, 150V, parallel connection	
LSP-10V320/P	LED lighting surge protection module, 10KA, 320V, parallel connection	
LSP-10V480/P	LED lighting surge protection module, 10KA, 480V, parallel connection	
LSP-10V150/PA	LED lighting surge protection module, 10KA, 150V, parallel connection, with dry contact alarm interface	
LSP-10V320/PA	LED lighting surge protection module, 10KA, 320V, parallel connection, with dry contact alarm interface	
LSP-10V480/PA	LED lighting surge protection module, 10KA, 480V, parallel connection, with dry contact alarm interface	
LSP-10V150/S	LED lighting surge protection module, 10KA, 150V, series connection	
LSP-10V320/S	LED lighting surge protection module, 10KA, 320V, series connection	
LSP-10V480/S	LED lighting surge protection module, 10KA, 480V, series connection	
LSP-10V150/SA	LED lighting surge protection module, 10KA, 150V, series connection, with dry contact alarm interface	
LSP-10V320/SA	LED lighting surge protection module, 10KA, 320V, series connection, with dry contact alarm interface	
LSP-10V480/SA	LED lighting surge protection module, 10KA, 480V, series connection, with dry contact alarm interface	



LEPS Technologies Ltd.  
<http://www.lepstech.com>  
 Email: [sales@lepstech.com](mailto:sales@lepstech.com)