

PRODUCT DATASHEET

LVED SPD 20KV IP67 Class I

LED SURGE PROTECTOR DEVICE



AREAS OF APPLICATION

- Surge protector device
- Uoc: 20KV
- Class I

PRODUCT BENEFITS

- Long lifetime and high working temperature
- Failure indication LED
- Low maintenance costs thanks to easy replacement

PRODUCT FEATURES

- Suitable for luminaries of protection class I
- High surge protection of up to 20 kV
- Maximize the lifetime of outdoor lighting applications
- Fully comply with IEC 61643-11
- Operating frequency: 50/60 Hz
- Compact design
- Type of protection IP67

TECHNICAL DATA

Electrical Specifications

Specifications	Parameter	Value	Unit	Condition
Classification		T3, T2		IEC/EN 61643-11 GB/T18802.11-2020
Protection mode		Diff. mode & Comm. Mode kg	24.58dm ³
(L-N) Max. continuous operating voltage	Uc (L-N)	320	VAC	50 ... 60 Hz
(L-GND) Max. continuous operating voltage	Uc (L-GND)	320	VAC	50 ... 60 Hz
(N-GND) Max. continuous operating voltage	Uc (N-GND)	15	VAC	50 ... 60 Hz / The L N input line must be connected correctly and cannot be reversed.L N
Temporary overvoltage TOV	UT	336.6	V	LV system fault: 255 V x 1.32 at tt =5S, TN
Temporary overvoltage TOV	UT	441.6	V	LV system fault: 255 V x $\sqrt{3}$ at tt = 120m, TN
Power grids		TN		Incl. all TN varieties TN-C, TN-C-S, TN-S
(L-N) Nominal discharge current	In (L-N) (L-GND) (N-GND)	10	kA	8/20us
Max discharge current	I _{max} (L-N) (L-GND) (N-GND)	20	kA	1 strike
(L-N) Max. voltage protection level at In	Up (L-N)	1.8	kV	10kA 8/20us
(L-GND) Max. voltage protection level at In	Up (L-GND)	2	kV	10kA 8/20us
(N-GND) Max. voltage protection level at In	Up (N-GND)	2	kV	10kA 8/20us
Open-circuit voltage	Uoc	20	kV	
Backup fuse		16	A	Max., gG fuse
End of life indication		Yes		Light ON: SPD is functional. Light OFF: SPD has reached end-of-life
Max earth leakage current at Uc		50	μA	Max. rms, to GND
IP protection level		IP67		

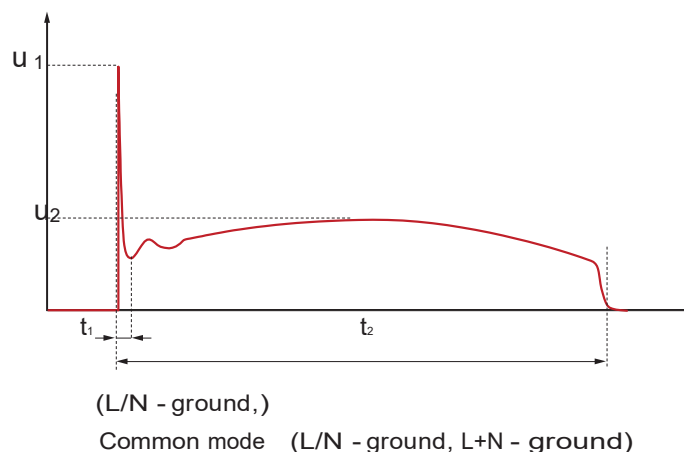
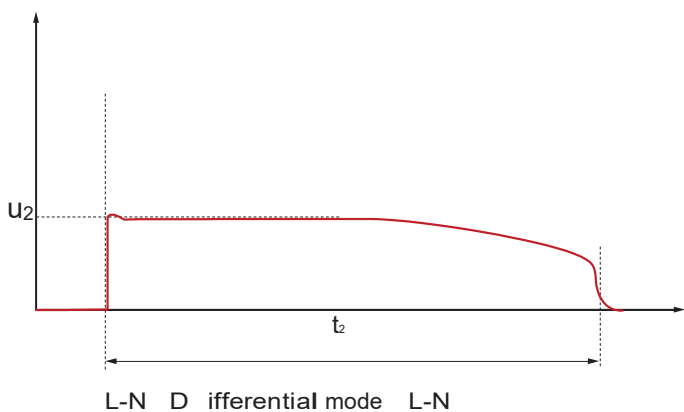
Other Specifications

Specifications	Parameter	Value	Unit	Condition
Surge withstand capability		1	strike	Max. at 20KA
		20	strike	Min. at 10kA
		50	strike	Min. at 5kA
Nominal current		5	A	(50-60Hz) Rated load current at 50 ... 60 Hz
Power consumption		0.5	W	Max. at Uc = 320VAC; Load current=5A
Suitable for luminaires		Class I		IEC60598 Insulation Class acc. IEC60598

TECHNICAL DATA

Protection levels Up

Model	Ic 8/20 μ s	Differential mode U2	(L-G) U1/U2 Common mode U1/U2	(N-G) U1/U2 Common mode U1/U2
LVED SPD 20KV	10KA	≤ 1800 V	≤ 2000 V / 1400 V	≤ 2000 V /1000 V



Environmental conditions

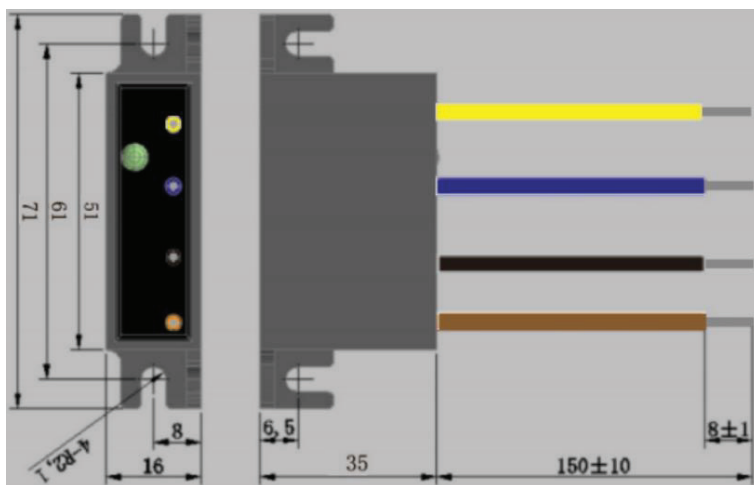
Specification item	Value	Unit	Condition
Ambient temperature	-40...80	$^{\circ}$ C	
Tcase-max.	85	$^{\circ}$ C	Measured at Tc-point
Storage temperature	-40...85	$^{\circ}$ C	
Relative humidity	5...95	%	Non-condensing
Suitable for outdoor luminaires	Yes		Built-in only

Lifetime

Specification item	Value	Unit	Condition
Lifetime	100,000	hours	Measured @ Tcase-max with min 90% survival

LOGISTICAL DATA

Product Dimensions



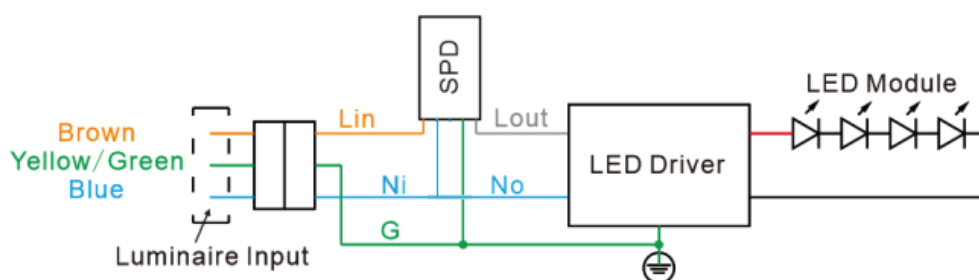
Dimensions

Mounting length	51 mm
Overall length	71 mm
Case Width	35 mm
Case Height	16 mm
Fixing hole diameter	M4 (61)

Dimensions

Specification item	Value	Unit	Condition
Wire diameter	0.77-0.87(18#1015)mm ²	mm ²	
Wire strip length	7~9	.mm	

Wiring diagram Insulation Class I application



The L N input line must be connected correctly and cannot be reversed.L N