PRODUCT DATASHEET
LVED SPD 10KV S IP6 Class II G3 - ENEC

LED SURGE PROTECTOR DEVICE

AREAS OF APPLICATION

– Surge protector device
– Uoc: 10KV
– Class II

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 10 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

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TECHNICAL DATA

Electrical Specifications

Specifications	Parameter	Value	Unit	Condition
Classification		Class III(T3) Class II(T2)		IEC/EN 61643-11 GB/T18802.11-2020
Protection mode		Diff. mode & Comm. Mode Diff.Mode: P-10/II S-10P/II		
(L-N) Max. continuous operating voltage	Uc (L-N)	320	VAC	50 ... 60 Hz
(L-GND) Max. continuous operating voltage	Uc (L-GND)	320 P-10 S-10	VAC	50 ... 60 Hz
(N-GND) Max. continuous operating voltage	Uc (N-GND)	15 P-10 S-10	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 √3 at tt = 120m, TN
Power grids		TN: P-10 S-10 TT, IT P-10/II S-10/II		Incl. all TN varieties TN-C, TN-C-S, TN-S
(L-N) Nominal discharge current	In (L-N) In (L-GND) In (N-GND)	5 P-10 S-10	kA	8/20uS
Max discharge current	Imax(L-N) (L-GND) (N-GND)	12 P-10 S-10	kA	1 strike
(L-N) Max. voltage protection level at In	Up (L-N)	1.5	kV	5kA 8/20uS
(L-GND) Max. voltage protection level at In	Up (L-GND)	2 P-10 S-10	kV	5kA 8/20uS
(N-GND) Max. voltage protection level at In	Up (N-GND)	2 P-10 S-10	kV	5kA 8/20uS
Open-circuit voltage	Uoc	10	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 P-10 S-10	µA	Max. rms, to GND
IP protection level		IP67		

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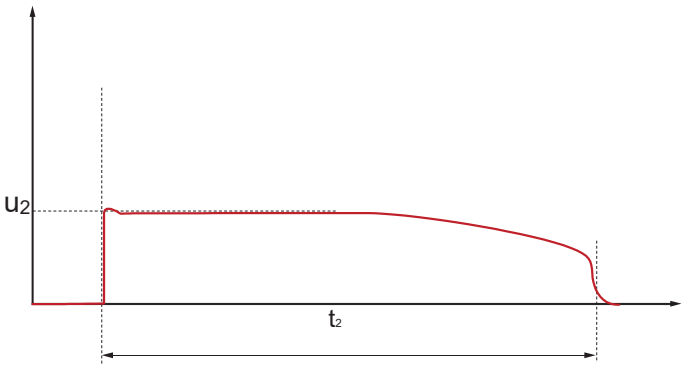
TECHNICAL DATA

Other Specifications

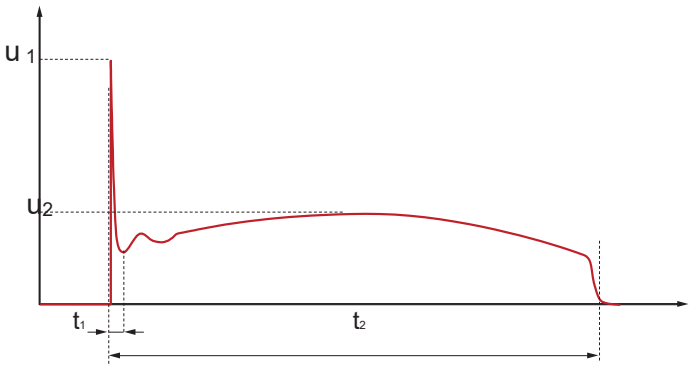
Specifications	Parameter	Value	Unit	Condition
Surge withstand capability		1	strike	Max. at 12KA
		20	strike	Min. at 5kA
		50	strike	Min. at 3kA
Nominal current		5 S-10 S-10/II	A	(50-60Hz) Rated load current at 50 ... 60 Hz
Power consumption		0.5	W	Max. at Uc = 320VAC; Load current=5A
Suitable for luminaires		Class I P-10 S-10 Class II P-10/II S-10/II		IEC60598 Insulation Class acc. IEC60598

Protection levels Up

Model	Ic 8/20 µs	Differential mode U2	(L-G) U1/U2 Common mode U1/U2	(N-G) U1/U2 Common mode U1/U2
LVED SPD 20KV IP20 I	DM:10kA / CM:7.5kA	⩽1800 V	⩽2000 V / 1400 V	⩽2000 V /1000 V



L-N Differential mode L-N



(L/N - ground,)
Common mode (L/N - ground, L+N - ground)

Environmental conditions

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

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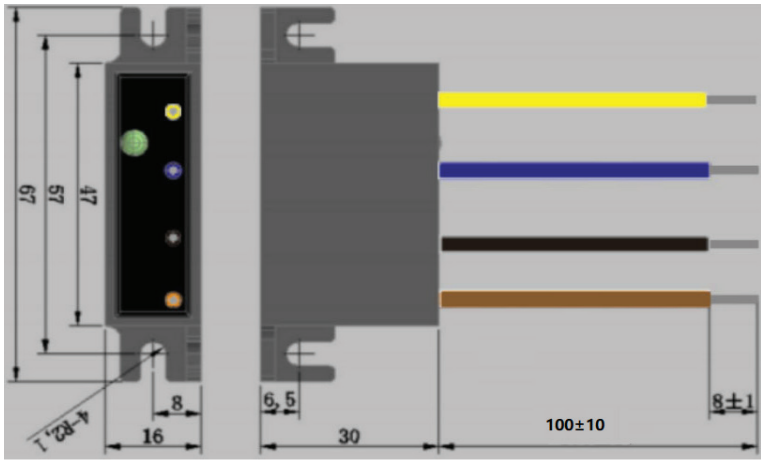
TECHNICAL DATA

Lifetime

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

Product Dimensions



Dimensions

Mounting length	47 mm
Overall length	67 mm
Case Width	30 mm
Case Height	16 mm
Fixing hole diameter	M4 (57)

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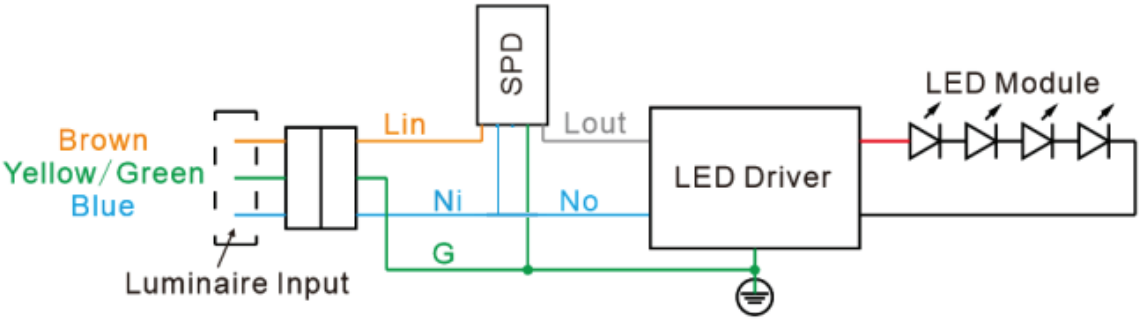
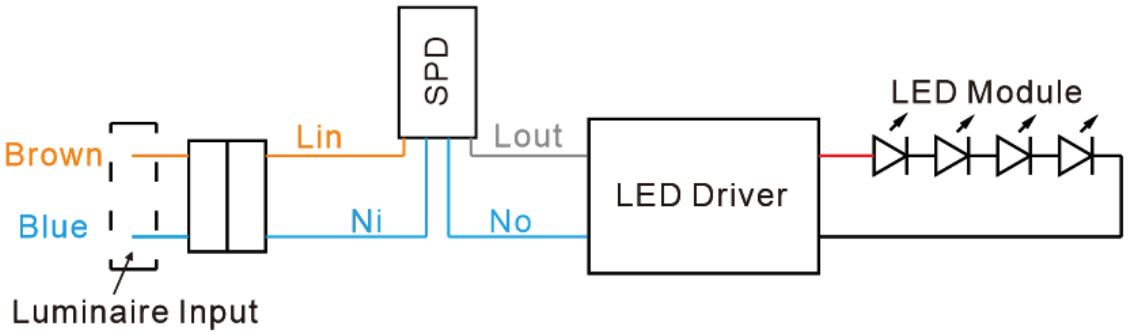
TECHNICAL DATA

Wiring diagram Insulation Class I application



Wiring diagram Insulation Class II application



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