

Surge Device Protector 20kV T2 for LED drivers & luminaires

LED SPD 20kV T2

Features:

- Wide range of mains supply AC voltage 100-277V & 50/60Hz
- Long life time & high durability
- Suitable for insulation Class I luminaires, drivers, power supplies only
- High grade of ingress protection of body IP67
- High surge protection levels of up to 20kV / 20kA
- Can use as common protection system for all low-voltage electrical installations
- For better surge protection of LED luminaires/drivers is recommended tandem use of T2 & T3 protectors

Applications:

- Highways lighting
- Rural roads lighting
- Industrial zones lighting



Protection

Protection mode	Diff. mode & Comm. Mode
Type of surge protection device according IEC/EN 61643-11	T2
Power grids	TN, TN-C, TN-C-S, TN-S, TT
Max. voltage protection level at In Up(L-N) & Up(L,N-GND)	< 1.5kV & < 2kV
Insulation class	Class I
Ingress protection	IP67

Electrical characteristics

Mains supply voltage Un(L-N) & Frequency	100 ... 277VAC & 50/60Hz
Max. continuous operating voltage Uc(L-N)	320VAC 50/60Hz
Max. continuous operating voltage Uc(L-GND)	320VAC 50/60Hz
Max. continuous operating voltage Uc(N-GND)	320VAC 50/60Hz
Temporary Overvoltage Ut (LV system fault 320V*√3 at tt=5s, TT)	554VAC
Temporary Overvoltage Ut (LV system fault 320V*1.32 at tt=120min, TT)	422VAC
Nominal discharge current In(L-N)	10kA 8/20uS current wave
Nominal discharge current In(L-GND) & In(N-GND)	10kA 8/20uS current wave
Max. discharge current Imax	20kA 8/20uS current wave
Max. voltage protection level at In Up(L-N)	< 1.5kV
Max. voltage protection level at In Up(L-GND) & Up(N-GND)	< 2kV
Backup fuse	16A, max gG fuse
Max. earth leakage current at Uc	50uA, rms to GND

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Durability

	1 strike at 20kA
Surge withstand capability	50 strikes at 10kA
	100 strikes at 4kA

Ambient conditions

Allowable operating ambient temperature t_a	-30 ... +70°C
Max. allowable casing temperature t_c	+80°C
Storage & Relative humidity	-30 ... +80°C & 5 ... 95% non-condensing
Suitable for outdoor luminaires	Yes, built-in usage only
Expose of UV radiation and/or Sun light	Not allowable, do not expose
Air pressure and altitude	80 ... 106kPa & -500 ... +2000m

Connections

Connections to protect	Line/Neutral/PE - single wires 1.5mm ²
Length of wires	3x170mm

Sizes&Fixing

Dimensions	85*43*35mm (only body)
Fixing screw type	M8

Material

Material of Body	plastic
Weight	
Replacable parts	No replacable parts

Warranty conditions

Lifespan at $t_c < 85^\circ\text{C}$	up to 100 000h in depends of strikes and T_c
Warranty	5 Years and/or according strikes and T_c

Certification

CE

Classification	Class II acc. EN61643-11
Designation	Type 2 acc. EN61643-11

Modified Date	Rev.	Description of Change		
		Item	From	To
21.11.2022	1	Datasheet Release	/	/

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