

# Surge-Trap<sup>®</sup> Type 2+3 - for LED Lighting

**SURGE PROTECTION FOR OUTDOOR AND COMMERCIAL LED LIGHTING**

POWER LINE PROTECTION FOR THE LED DRIVER IN THE FIXTURE (UL & IEC)



STL T23 is the series of robust 10-20 kV combined Type 2+3/Class II+III devices for discharging voltage surges while providing a very fine voltage protection level, in accordance with EN/IEC 61643. Suitable for protection of LED outdoor luminaires (street-light). Due to the exposure of the extremely sensitive LED electronics to lightning-induced overvoltages, STL T23 is a widespread market solution amongst OEM manufacturers of LED lighting systems.

## TECHNICAL DATA OVERVIEW

Class	Type 2+3 / Class II+III
$U_n$	230 V
$I_{max}$ Range	10 ... 20 kA
Body Material	PA66 CT1; V-0
Format	Hardwired
Temperature range	-40 ... 80 °C
$I_{cc}$ Range	1 ... 10 A
$I_n$ (8/20) Range	5 ... 10 kA
$U_{oc}$ Range	10 ... 20 kV
IL	2.5 ... 10 A
IP Code	20
Back-up fuse	25 ... 32 A gG
Stranded wire Section	0.7 ... 2.5 mm <sup>2</sup>
Response Time	25 ns

## FEATURES & BENEFITS

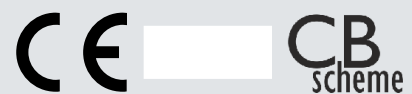
- STL, STLB
- Combined voltage pulse (1.2/50 $\mu$ s): 10 kV, 20 kV ( $U_{oc}$ )
- Maximum discharge current (8/20 $\mu$ s): 10 kA, 20 kA
- Nominal discharge current (8/20 $\mu$ s): 5 kA, 10 kA
- Class 1 and Class 2 luminaires, universal solutions
- Miniature size and easy to install
- Hardwired, in-line format
- End of life indication
- Rated current load (IL): 2.5 A, 10 A (series)
- Optional: "surge tested and certified" luminaire with STL T23 by accredited LAB
- Back-up fuse: 25 A gG

## APPLICATIONS

- LED outdoor lighting

## STANDARDS

- IEC 61643-11
- EN 61643-11
- IEE/ANSI C62.41.2



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## PRODUCT RANGE

### STL

STLT23-10K320V-C12

Catalog number	Item number	U <sub>n</sub>	U <sub>c</sub>	I <sub>max</sub> (8/20)	I <sub>n</sub> (8/20)	U <sub>oc</sub>	U <sub>p</sub> at I <sub>n</sub>	IL
<b>STL C12: 1Ph+N / 2Ph-Universal</b>								
STLT23-10K320V-C12	83230302	230 VAC	320 V	10 kA	5 kA	10 kV	≤ 1.5 kV (L-N) ≤ 1.8 kV (L/N-GND)	< 10 A
<b>STL C2: 1Ph+N</b>								
STLT23-10K320V-C2-WD	83230323	230 VAC	320 V	10 kA	5 kA	10 kV	≤ 1.5 kV (L-N)	< 2.5 A
<b>STL C4: 1Ph+N</b>								
STLT23-10K320V-C4-WD	83230322	230 VAC	320 V	10 kA	5 kA	10 kV	≤ 1.5 kV (L-N) ≤ 1.8 kV (L/N-GND)	< 2.5 A

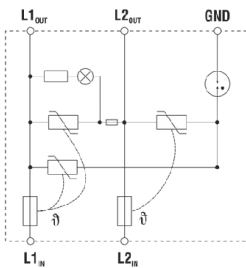
### STLB

STLBT23-20K275V-C4-DD

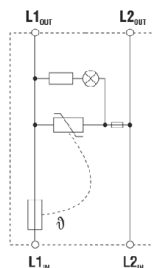
Catalog number	Item number	U <sub>n</sub>	U <sub>c</sub>	I <sub>max</sub> (8/20)	I <sub>n</sub> (8/20)	U <sub>oc</sub>	U <sub>p</sub> at I <sub>n</sub>	IL
<b>STB C4: 1Ph+N</b>								
STLBT23-20K275V-C4-DD	83230321	230 VAC	275 V	20 kA	10 kA	20 kV	≤ 1.5 kV (L-N) ≤ 1.8 kV (L/N-GND)	2.5 A

## ELECTRICAL DIAGRAMS

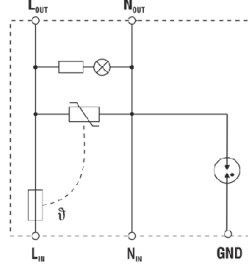
**STL C12: 1Ph+N**



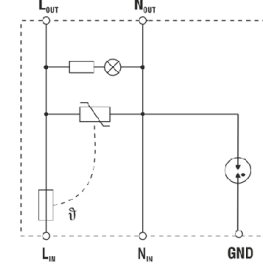
**STL C2: 1Ph+N**



**STL C4: 1Ph+N**



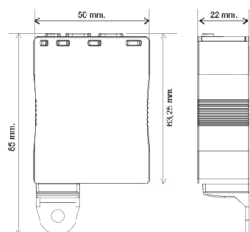
**STLB C4: 1Ph+N**



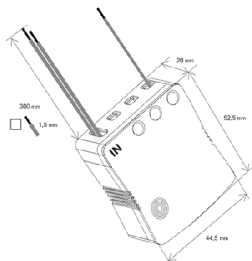
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## DIMENSIONS

**STLB**

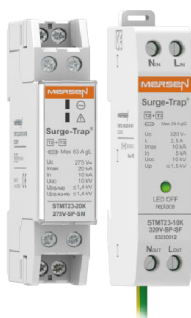


**STL**



## RELATED SERIES

### Surge-Trap® Monobloc STMT23 Series - 20kA Slim



### Surge-Trap® POP + SPD Type 2 - For Contactor



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