

# Surge-Trap® Type 2+3 - For LED Lighting

## DIN Rail IEC Type 2+3 / Class II+III

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.

### Features Benefits

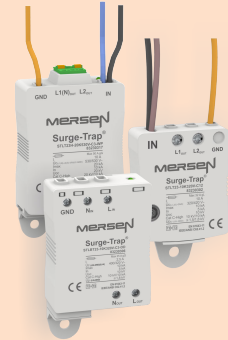
- STL, STLB, STLH
- Combined voltage pulse (1.2/50µs): 10 kV, 20 kV (Uoc)
- Maximum discharge current (8/20µs): 10 kA, 20 kA
- Nominal discharge current (8/20µs): 5 kA, 10 kA
- Class 1 and Class 2 luminaires, universal solutions
- Miniature size and easy to install
- Hardwired, in-line format
- End of life indication
- Rated current load (IL): 2.5 A, 10 A (series)
- Optional: "surge tested and certified" luminaire with STL T23 by accredited LAB

### Applications

- LED outdoor lighting

### Technical data overview

Class	Type 2+3 / Class II+III
U <sub>n</sub>	230 V, 277/480 V
I <sub>max</sub> Range	10 ... 20 kA
Body Material	PA66 CT1; V-0
Format	Hardwired
Temperature range	-40 ... 80 ° C
I <sub>cc</sub>	10 kA
I <sub>n</sub> (8/20) Range	5 ... 10 kA
U <sub>oc</sub> Range	10 ... 20 kV
IL	10 A
IP Code	20 65
Back-up fuse	32 A gG
Stranded wire Section	0.7 ... 2.5 mm <sup>2</sup>
Response Time	25 ns



### Standards

IEC 61643-11

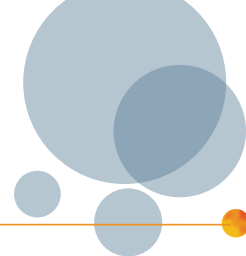
EN 61643-11

IEE/ANSI C62.41.2



# Surge-Trap® Type 2+3 - For LED Lighting

## Product range



STLT23-10K320V-C1

### STL

Catalog number	Reference number	$U_n$	$U_c$	$I_{max} (8/20)$	$I_n (8/20)$	$U_{oc}$	$U_p$ at $I_n$	IL
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#### STL C1: 1Ph+N

STLT23-10K320V-C1	83230300	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L1-L2) $\leq 1.8$ kV (L1/L2-PE)	10 A
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#### STL C12: 1Ph+N

STLT23-10K320V-C12	83230302	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L1-L2) $\leq 1.8$ kV (L1/L2-GND)	10 A
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#### STL C2: 1Ph+N

STLT23-10K320V-C2	83230301	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L1-L2)	10 A
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STLBT23-10K320V-C3-DD

### STLB

Catalog number	Reference number	$U_n$	$U_c$	$I_{max} (8/20)$	$I_n (8/20)$	$U_{oc}$	$U_p$ at $I_n$	IL
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#### C3: 1Ph+N/2Ph - Universal

STLBT23-10K320V-C3-DD	83230306	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.8$ kV (L-N) $\leq 1.8$ kV (L/N-GND)	2.5 A
STLBT23-10K320V-C3-WW	83230305	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.8$ kV (L-N) $\leq 1.8$ kV (L/N-GND)	2.5 A
STLBT23-10K320V-C3-WD	83230307	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.8$ kV (L-N) $\leq 1.8$ kV (L/N-GND)	2.5 A
STLBT23-10K320V-C3-WW-IP	83230304	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.8$ kV (L-N) $\leq 1.8$ kV (L/N-GND)	2.5 A

#### C4: 1Ph+N

STLBT23-10K320V-C4-DD	83230313	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L-N) $\leq 1.8$ kV (N-GND)	2.5 A
STLBT23-10K320V-C4-WW	83230312	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L-N) $\leq 1.8$ kV (N-GND)	2.5 A
STLBT23-10K320V-C4-WD	83230314	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L-N) $\leq 1.8$ kV (N-GND)	2.5 A
STLBT23-10K320V-C4-WW-IP	83230311	230 VAC	320 V	10 kA	5 kA	10 kV	$\leq 1.5$ kV (L-N) $\leq 1.8$ kV (N-GND)	2.5 A

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## Product range



STLHT23-  
20K530V-C3-WP

### STLH

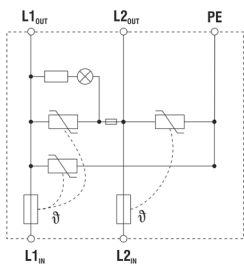
Catalog number	Reference number	$U_n$	$U_c$	$I_{max}$ (8/20)	$I_n$ (8/20)	$U_{oc}$	$U_p$ at $I_n$	IL
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#### C3: 1Ph+N/2Ph - Universal

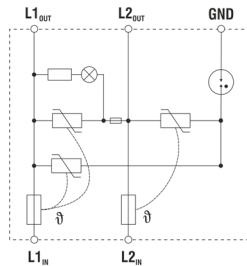
STLHT23-20K530V-C3-WP	83230317	277/480 VAC	530 V	20 kA	10 kA	20 kV	$\leq 2.5$ kV(L1(N)-L2) $\leq 2.5$ kV (L1(N)/L2-GND)	10 A
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## Electrical diagrams

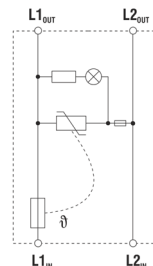
#### STL C1: 1Ph+N



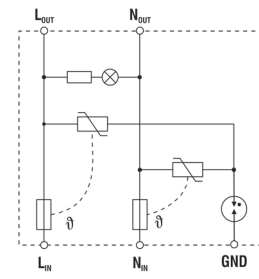
#### STL C12: 1Ph+N



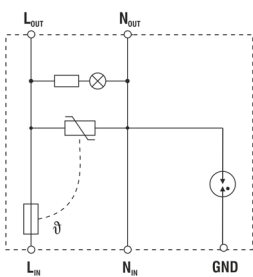
#### STL C2: 1Ph+N



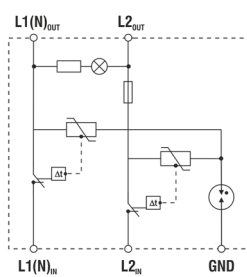
#### STLB C3: 1Ph+N/2Ph



#### STLB C4: 1Ph+N



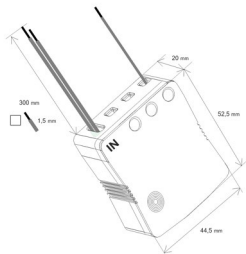
#### STLH C3: 1Ph+N/2Ph



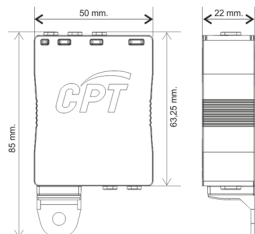
# Surge-Trap® Type 2+3 - For LED Lighting

## Dimensions

STL



STLB



STLH

