

# Surge-Trap<sup>®</sup> Pluggable STPT12 Series - 25kA

**SURGE PROTECTION FOR POWER LINES**

DIN-RAIL IEC TYPE 1+2 / CLASS I+II



STP T12 25 is the series of combined Type 1+2/Class I+II devices for discharging lightning currents and protecting against voltage surges, in accordance with EN/IEC 61643. Suitable as the first step of protection in incoming power supply panels and areas with exposure to the atmosphere, where installations are usually provided with an external lightning protection system.

## TECHNICAL DATA OVERVIEW

|                       |                          |
|-----------------------|--------------------------|
| Class                 | Type 1+2 / Class I+II    |
| $U_n$                 | 230/400V                 |
| $I_{imp}$             | 25 kA                    |
| $I_{max}$             | 100 kA                   |
| $I_n (8/20)$          | 25 kA                    |
| $I_{sccr}$            | 25 kA                    |
| Body Material         | PA66 CT1; V-0            |
| System type           | TT, TNS, TNC             |
| Number of Poles       | 1,2,3,4                  |
| Format                | Pluggable                |
| Temperature range     | -40 ... 80 °C            |
| IP Code               | 20                       |
| Back-up fuse          | 315 A gG                 |
| Stranded wire Section | 6 ... 25 mm <sup>2</sup> |
| Rigid wire Section    | 6 ... 35 mm <sup>2</sup> |

## FEATURES & BENEFITS

- Lightning impulse current (10/350μs): 25kA per phase
- Maximum discharge current (8/20μs): 100kA per phase
- Nominal discharge current (8/20μs): 25kA per phase
- TNS, TNC and TT networks
- $U_n(L-N/L-L)$ : 230/400V
- DIN-rail mountable, plug-in format
- Visual and remote end of life indicators
- Reversible chassis to allow cable entry from above or below
- Mechanically coded cartridges to avoid cartridge replacement errors
- Back-up fuse: 315 A gG

## APPLICATIONS

- Industry and automation
- Commercial and residential installations
- Telecom & IT & Data Centers
- Water treatment
- Smart grid & LV Metering
- Photovoltaic & wind

## STANDARDS

- IEC 61643-11
- EN 61643-11



# Surge-Trap® Pluggable STPT12 Series - 25kA

## PRODUCT RANGE



STPT12-25K275V-1PM

### 1 Pole

| Catalog number     | Item number | U <sub>n</sub> | U <sub>c</sub> | I <sub>imp</sub> (10/350) | I <sub>max</sub> (8/20) | I <sub>n</sub> (8/20) | U <sub>p</sub> at I <sub>n</sub> | Remote | Cartridge No |             |
|--------------------|-------------|----------------|----------------|---------------------------|-------------------------|-----------------------|----------------------------------|--------|--------------|-------------|
|                    |             |                |                |                           |                         |                       |                                  |        | L-N          | N-PE        |
| <b>L-N (1Ph)</b>   |             |                |                |                           |                         |                       |                                  |        |              |             |
| STPT12-25K275V-1P  | 83120152    | 230 VAC        | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | No     | SP12-25K275V | -           |
| STPT12-25K275V-1PM | 83120153    | 230 VAC        | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | Yes    | SP12-25K275V | -           |
| <b>N-PE (N)</b>    |             |                |                |                           |                         |                       |                                  |        |              |             |
| STPT12-100K-N      | 83120166    | Neutral        | 255 V          | 100 kA                    | 100 kA                  | 50 kA                 | ≤ 1.5 kV                         | No     | -            | SP12-100K-N |



STPT12-25K275V-2PM

### 2 Poles

| Catalog number      | Item number | U <sub>n</sub> | U <sub>c</sub> | I <sub>imp</sub> (10/350) | I <sub>max</sub> (8/20) | I <sub>n</sub> (8/20) | U <sub>p</sub> at I <sub>n</sub> | Remote | Cartridge No |              |
|---------------------|-------------|----------------|----------------|---------------------------|-------------------------|-----------------------|----------------------------------|--------|--------------|--------------|
|                     |             |                |                |                           |                         |                       |                                  |        | L-N          | N-PE         |
| <b>TT (1Ph+N)</b>   |             |                |                |                           |                         |                       |                                  |        |              |              |
| STPT12-25K275V-2PG  | 83120154    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | No     | SP12-25K275V | SP12-50K-2PN |
| STPT12-25K275V-2PGM | 83120155    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | Yes    | SP12-25K275V | SP12-50K-2PN |
| <b>TNS (1Ph+N)</b>  |             |                |                |                           |                         |                       |                                  |        |              |              |
| STPT12-25K275V-2P   | 83120156    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | No     | SP12-25K275V | -            |
| STPT12-25K275V-2PM  | 83120157    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | Yes    | SP12-25K275V | -            |



STPT12-25K275V-3PM

### 3 Poles

| Catalog number     | Item number | U <sub>n</sub> | U <sub>c</sub> | I <sub>imp</sub> (10/350) | I <sub>max</sub> (8/20) | I <sub>n</sub> (8/20) | U <sub>p</sub> at I <sub>n</sub> | Remote | Cartridge No |
|--------------------|-------------|----------------|----------------|---------------------------|-------------------------|-----------------------|----------------------------------|--------|--------------|
|                    |             |                |                |                           |                         |                       |                                  |        | L-N          |
| <b>TNC (3Ph)</b>   |             |                |                |                           |                         |                       |                                  |        |              |
| STPT12-25K275V-3P  | 83120158    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | No     | SP12-25K275V |
| STPT12-25K275V-3PM | 83120159    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | Yes    | SP12-25K275V |

# Surge-Trap® Pluggable STPT12 Series - 25kA

## PRODUCT RANGE



STPT12-25K275V-4PM

### 4 Poles

| Catalog number      | Item number | U <sub>n</sub> | U <sub>c</sub> | I <sub>imp</sub> (10/350) | I <sub>max</sub> (8/20) | I <sub>n</sub> (8/20) | U <sub>p</sub> at I <sub>n</sub> | Remote | Cartridge No |             |  |
|---------------------|-------------|----------------|----------------|---------------------------|-------------------------|-----------------------|----------------------------------|--------|--------------|-------------|--|
|                     |             |                |                |                           |                         |                       |                                  |        | L-N          | N-PE        |  |
| <b>TT (3Ph+N)</b>   |             |                |                |                           |                         |                       |                                  |        |              |             |  |
| STPT12-25K275V-4PG  | 83120150    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | No     | SP12-25K275V | SP12-100K-N |  |
| STPT12-25K275V-4PGM | 83120151    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | Yes    | SP12-25K275V | SP12-100K-N |  |
| <b>TNS (3Ph+N)</b>  |             |                |                |                           |                         |                       |                                  |        |              |             |  |
| STPT12-25K275V-4P   | 83120160    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | No     | SP12-25K275V | -           |  |
| STPT12-25K275V-4PM  | 83120161    | 230 / 400 VAC  | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         | Yes    | SP12-25K275V | -           |  |



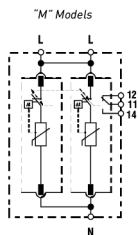
SP12-25K275V

### Replacement cartridges

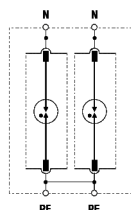
| Catalog number   | Item number | U <sub>n</sub> | U <sub>c</sub> | I <sub>imp</sub> (10/350) | I <sub>max</sub> (8/20) | I <sub>n</sub> (8/20) | U <sub>p</sub> at I <sub>n</sub> |
|------------------|-------------|----------------|----------------|---------------------------|-------------------------|-----------------------|----------------------------------|
| <b>L-N (1Ph)</b> |             |                |                |                           |                         |                       |                                  |
| SP12-25K275V     | 83120007    | 230 VAC        | 275 V          | 25 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         |
| <b>N-PE (N)</b>  |             |                |                |                           |                         |                       |                                  |
| SP12-50K-2PN     | 83120009    | Neutral        | 255 V          | 50 kA                     | 100 kA                  | 25 kA                 | ≤ 1.5 kV                         |
| SP12-100K-N      | 83120008    | Neutral        | 255 V          | 100 kA                    | 100 kA                  | 50 kA                 | ≤ 1.5 kV                         |

## ELECTRICAL DIAGRAMS

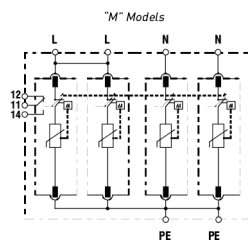
### L-N (1Ph)



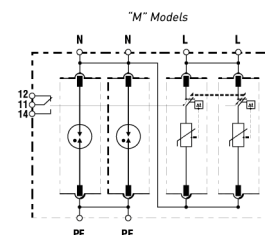
### N-PE (N)



### TNS (1Ph+N) - 2P



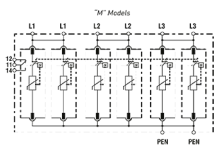
### TT (1Ph+N) - 2PG



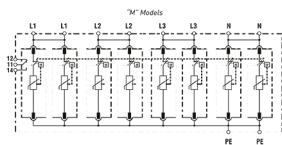
# Surge-Trap® Pluggable STPT12 Series - 25kA

## ELECTRICAL DIAGRAMS

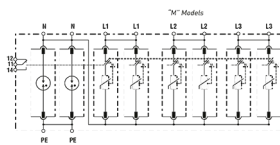
TNC (3Ph) - 3P



TNS (3Ph+N) - 4P

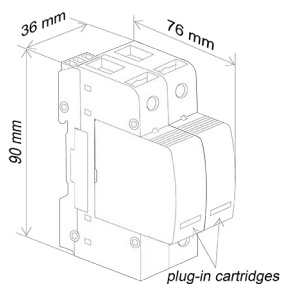


TT (3Ph+N) - 4PG

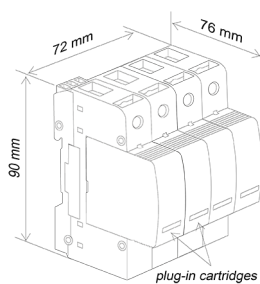


## DIMENSIONS

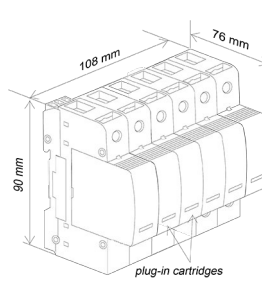
1 Pole



2 Poles



3 Poles



4 Poles

