



# Surge Protection Device (SPD)

## FP T1-440-12,5

Class 1+2

Surge Protection Device Class 1+2 plug-in

UC=440V, Iimp=12,5kA, Up=1,8kV

Location of use : Main Distribution Boards

Network Systems : TN-S, IT/TN-C, IT

Mode of protection : L-PEN/N-PE

Class : Class 1+2

Compliance : IEC 61643-11:2011

EN 61643-11:2012+A11:2018

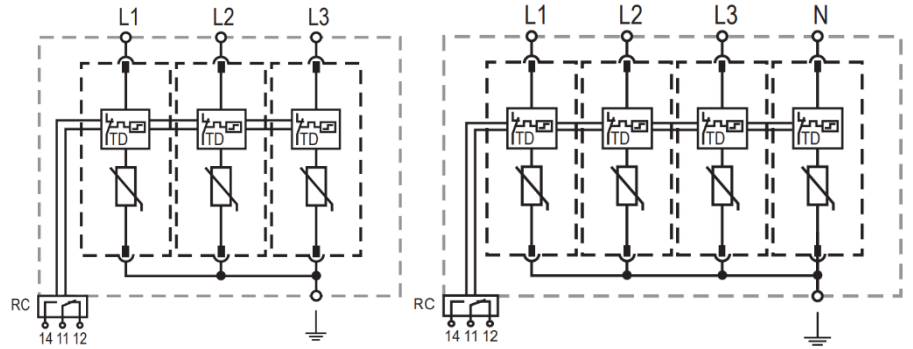
### Technical Data

| Reference                                  |                        | 24118            | 24119   |
|--|------------------------|------------------|---|
| Name                                       |                        | FP T1-440-12,5-3 | FP T1-440-12,5-4  |
| Surge protector type                       |                        | Three-phase      | Three-phase+N   |
| Nominal AC voltage (50/60Hz)               | $U_o/U_n$              |                  | 230V  |
| Maximum continuous operating voltage       | $U_c$                  |                  | 440V  |
| Nominal discharge current (8/20 $\mu$ s)   | (L-N)/(N-PE) $I_n$     |                  | 20kA  |
| Maximum discharge current (8/20 $\mu$ s)   | (L-N)/(N-PE) $I_{max}$ |                  | 50kA  |
| Impulse discharge current (10/350 $\mu$ s) | (L-N)/(N-PE) $I_{imp}$ |                  | 12,5kA  |
| Specific energy                            | (L-N)/(N-PE) $W/R$     |                  | 39 kJ / $\Omega$  |
| Charge                                     | (L-N)/(N-PE) $Q$       |                  | 6,25As  |
| Voltage protection level                   | (L-N)/(N-PE) $U_p$     |                  | 1800V   |
| Follow current interrupt rating (AC)       | (N-PE) $I_{fi}$        |                  | 50kA / 100kA  |
| Response time                              | (L-N)/(N-PE) $t_A$     |                  | < 25ns  |
| Overcurrent protection (max)               |                        |                  | 315A gG / 250A gG   |
| Fuse rating recommended                    |                        |                  | 125 A   |
|  | $I_{imp}$              |                  | 12.5 kA   |
| Short-circuit current rating (AC)          | (L-N) $I_{SCCR}$       |                  | 25kA / 50kA   |
| Tov 120min                                 | (L-N) $U_T$            |                  | 440V  |
|  | Mode                   |                  | Withstand   |
| Tov safe fail 200ms                        | (N-PE) $U_T$           |                  | 1640V   |
| Operating temperature range                | $T_a$                  |                  | -40 °C to +85 °C  |
| Permissible operating humidity             | RH                     |                  | 5%...95%  |
| Terminal screw torque                      | $M_{max}$              |                  | 4.5Nm   |
| Conductor cross section (max)              |                        |                  | 6 AWG (solid)<br>35mm <sup>2</sup> (solid) / 25mm <sup>2</sup> (flexible) |
| Mounting                                   |                        |                  | 35mm DIN Rail, EN 60715   |
| Degree of protection                       |                        |                  | IP 20 (integrated)  |
| Housing material                           |                        |                  | Thermoplastic: extinguishing degree UL 94 V-0                             |
| Thermal protection                         |                        |                  | Yes   |
| Operating state / fault indication         |                        |                  | Green / Red   |
| Remote contacts (RC)                       |                        |                  | Optional  |
| RC switching capacity                      |                        |                  | AC: 250V/1A,125V/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A                     |
| RC conductor cross section (max)           |                        |                  | 10 AWG (solid) / 1.5 mm <sup>2</sup> (solid)                              |

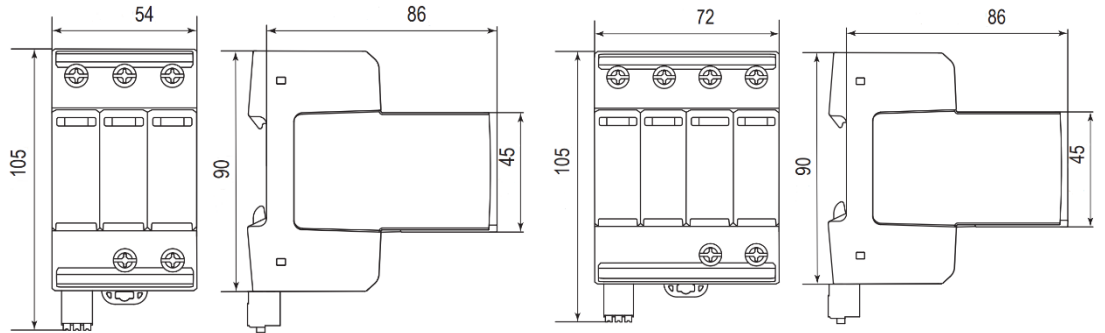
## Internal Configuration

### Legend

|    |                                     |
|----|-------------------------------------|
| L  | Line Conductor Terminal             |
| N  | Neutral Conductor Terminal          |
| ⏚  | PE Conductor Terminal               |
| RC | Remote Contacts Terminal (Optional) |
| TD | Thermal Disconnecter                |



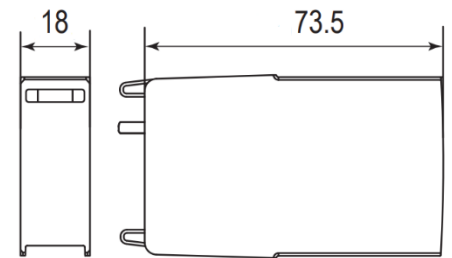
## Dimensions & Packaging



| Reference            | 24118              | 24119            |
|----------------------|--------------------|------------------|
| Name                 | FP T1-440-12,5-3   | FP T1-440-12,5-4 |
| Weight               | 577 g              | 684 g            |
| Number of modules    | 3                  | 4                |
| Packaging dimensions | 109 × 115 × 352 mm |                  |

## Spare Plug

| Reference            | 24135              |
|----------------------|--------------------|
| Name                 | T1-440-25          |
| Type                 | Phase / Neutre     |
| Weight               | 110 g              |
| Number of modules    | 1                  |
| Packaging dimensions | 109 × 115 × 352 mm |



## Circuit Breaker

| Reference                 | 24118            | 24119            |
|---------------------------|------------------|------------------|
| Name                      | FP T1-440-12,5-3 | FP T1-440-12,5-4 |
| Circuit Breaker Reference | 20016            | 20011            |
| Fuse Reference            | 80318            |                  |

