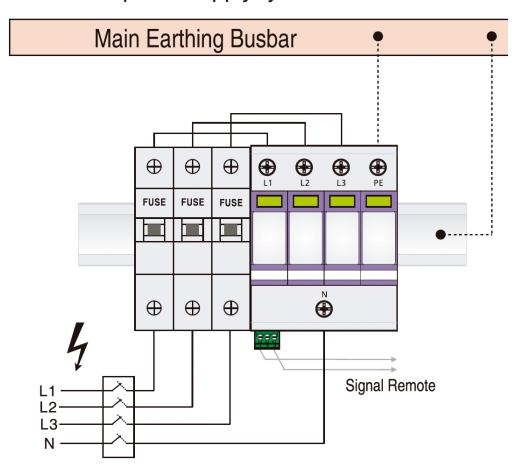




## **DIAGRAMA DE INSTALACIÓN**

# • BT PCM TT 150 RM

Surge protection for three-phase TT ("3+1" circuit) 120V/240V power supply system.

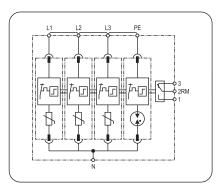


# Surge Protective Devices

### BT PCM TT 150 RM



### Basic circuit diagram:



#### Technical data

Туре		BT PCM TT 150 RM
ArtNo.		810 812
Rated voltage L-N (max. continous voltage) N-PE	_ U <sub>c</sub>	150V~ 255V~
Nominal discharge current (8/20) L-N N-PE	- I <sub>n</sub>	20kA 40kA
Max. discharge current (8/20) L-N N-PE	- I <sub>max</sub>	40kA 65kA
Voltage protection level at I <sub>n</sub> L-N N-PE	- U <sub>p</sub>	≤ 0.7kV ≤ 1.5kV
Voltage protection level 5kA L-N	U <sub>P</sub>	≤ 0.55kV
Response time L-N N-PE	- t <sub>A</sub>	≤ 25ns ≤ 100ns
Follow current extinguishing capability at U <sub>c</sub> N-PE	I <sub>f</sub>	100A <sub>rms</sub>
Max. back up fuse		125A gL/gG
Operating temperature range	Τ <sub>υ</sub>	-40°C+80°C
Cross-section area		1.5mm² ~ 25mm² solid / 35mm² flexible
Mounting on		35mm DIN rail
Enclosure material		Purple (module) & light grey (base) thermoplastic, UL94-V0
Dimension		4 mods
Test standards		IEC 61643-1
Certification		CE (LVD, EMC)
Type of remote signalling contact		Switching contact
Switching capacity	U <sub>N</sub> /I <sub>N</sub>	AC:250V/0.5A; DC:250V/0.1A; 150V/0.2A; 750V/0.5A
Cross-sectional area for remote signalling contact		Max. 1.5mm² solid / flexible

#### Product introduction

#### 1. Summary

BT PCM TT 150 RM is for installation at LPZ 0<sub>8</sub>-1 or higher, protecting low voltage equipment from surge.

Applied in pulggable SPD Class II (Class C) for TT and TN-S power supply system.

Designed according to IEC 61643-1.

#### 3. Application

BT PCM TT 150 RM is applied in three-phase TT and TN-S system ("3+1" circuit).

#### Installation instruction

According to lightning protection zones concept, for installation at LPZ 0<sub>B</sub>-1 or higher. This surge protective device is usually installed in distribution-box or feeder bus of UPS, protecting devices or equipment downstream.

Fuse must be installed at the upstream of the SPD or the lightning arrester to make sure that the protected system has double protection. The value of the fuse used in a SPD system should be conformed to:

- 1. The value of FUSE should not be larger than the max. withstand capacity of the SPD's backup fuse value.
- 2. Under the status of the max, current in the power supply & close loop circuit available current, the fuse should be able to disconnect when overloaded or short-circuited.
- 3. Take 1 & 2 into consideration, the fuse should be as large as possible to allow the maximum surge discharge of SPD.

#### 2. Main character

- Pluggable module, easy for installation and maintenance
- High discharge capacity, quick response
- Double thermal disconnector devices, providing more reliable protection
- Green window will change to red when fault and also provide remote alarm control at the same time

#### 4. Application environment

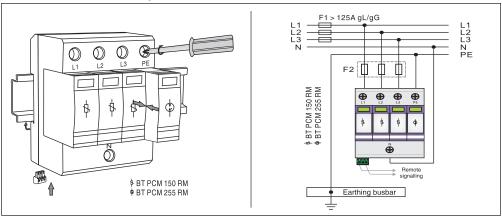
- Temperature: -40°C ~ +80°C
- Relative humidity: ≤ 95% (25°C)

#### Installation steps

- 1. Check the product for integrity of the package; make sure the product window not indicates red.
- 2. Mount the SPD on the 35mm DIN rail.
- 3. Connect conductors, the cross-sectional area of cable must be larger than 6mm<sup>2</sup>. The withstand voltage value of cable is not smaller than AC500V; ensure wiring reliable.
- 4. If need remote alarm, it should be connected signal lines to remote signal terminal 1 and 2, or 2 and 3 (normal, 1 and 2 open, 2 and 3 close; when fault, the state is reversed).
- 5. After above, switch on the power supply and turn on the circuit breaker, if the SPD's window does not appear red, this indicates the unit is operating normally.

Regularly inspect the operating status, especially after lightning. Once the fuse upstream breaks, or the SPD's window indicates red, electrician should check/replace the SPD.

#### BT PCM TT 150 RM installation diagram:





#### **WARNING:**

- 1. The device must be installed by electrically skilled person, conforming to national standards and safety regulations.
- 2. It is recommended that installation should be done under power off condition.

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□ Lightning and Surge Protection