

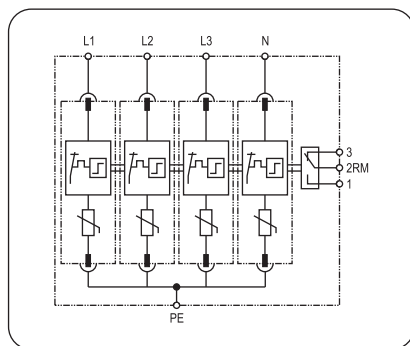
BlitzTrap

SPD

BT PCM TNS ... RM



Basic circuit diagram:



• Technical data

| Type | | BT PCM TNS 150 RM | BT PCM TNS 275 RM | BT PCM TNS 320 RM | BT PCM TNS 385 RM |
|--|-----------|---|--------------------|--------------------|--------------------|
| Art.-No. | | 810 833 | 810 834 | 810 887 | 810 835 |
| Nominal a.c. voltage | | 120/240V (50/60Hz) | 230/400V (50/60Hz) | 230/400V (50/60Hz) | 230/400V (50/60Hz) |
| Rated voltage (max. continuous a.c. voltage) | U_c | 150V (50/60Hz) | 275V (50/60Hz) | 320V (50/60Hz) | 385V (50/60Hz) |
| Nominal discharge current (8/20) | I_n | 20kA | 20kA | 20kA | 20kA |
| Max. discharge current (8/20) | I_{max} | 40kA | 40kA | 40kA | 40kA |
| Voltage protection level at I_n | U_p | $\leq 0.9kV$ | $\leq 1.3kV$ | $\leq 1.5kV$ | $\leq 1.8kV$ |
| Voltage protection level 5kA | U_p | $\leq 0.55kV$ | $\leq 1.0kV$ | $\leq 1.2kV$ | $\leq 1.35kV$ |
| Response time | t_A | $\leq 25ns$ | $\leq 25ns$ | $\leq 25ns$ | $\leq 25ns$ |
| Max. back up fuse | | 125A gL/gG | | | |
| Operating temperature range | T_u | $-40^{\circ}C...+80^{\circ}C$ | | | |
| Cross-section area | | 1,5mm ² ~ 25mm ² solid / 35mm ² flexible | | | |
| Mounting on | | 35mm DIN rail | | | |
| Enclosure material | | Purple (module) & light grey (base) thermoplastic, UL94-V0 | | | |
| Dimension | | 4 mods | | | |
| Test standards | | IEC 61643-11; GB 18802.1; YD/T 1235.1 | | | |
| Certification | | KEMA-KEUR; CE; CB | | | |
| Type of remote signalling contact | | Switching contact | | | |
| Switching capacity | U_N/I_N | AC:250V/0.5A; DC:250V/0.1A; 150V/0.2A; 75V/0.5A | | | |
| Cross-sectional area for remote signalling contact | | Max. 1.5mm ² solid / flexible | | | |

• Product introduction

1. Summary

BT PCM TNS ... RM is for installation at LPZ 0_s-1 or higher, protecting low voltage devices from surge. Applied in pluggable SPD Class II (Class C) for TN-S power supply system. Designed according to IEC 61643-11; GB 18802.1; YD/T 1235.1 .

3. Application

BT PCM TNS ... RM is applied in three-phase TN-S system providing Class II lightning protection.

• Installation instruction

According to lightning protection zones concept, for installation at LPZ 0_s-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

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

4. Application environment

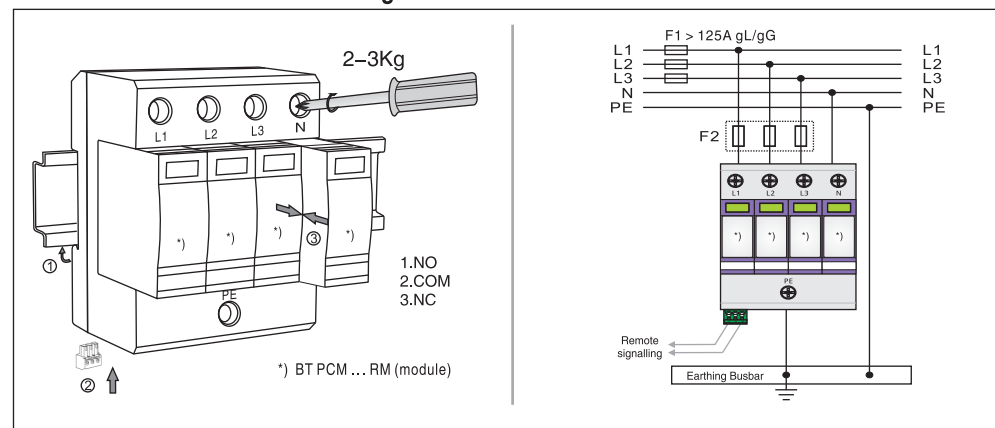
- Temperature: $-40^{\circ}C \sim +80^{\circ}C$
- Relative humidity: $\leq 95\%$ ($25^{\circ}C$)

• Installation steps

1. Check the product for integrity of the package; make sure the product window indicates green.
2. Mount the SPD on the 35mm DIN rail.
3. Connect conductors, the cross-sectional area of cable must be larger than 6mm². 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 (When 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 break, or the SPD's window indicates red, electrician should check/replace the SPD.

BT PCM TNS ... 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.