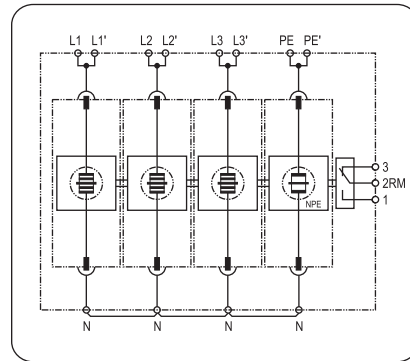


BT P BCM 25 RM/3+N

SPD-Type 1+2
(for Class I & II)



Basic circuit diagram:



• Technical data

| Type | BT P BCM 25 RM/3+N | |
|--|--------------------|---|
| Art.-No. | 800 915 | |
| Nominal a.c. voltage | U_n | 230V~/400V~ |
| Rated voltage (max. continuous voltage) | U_c | 255V~ |
| Total lightning impulse current (10/350) | I_{imp} | 100kA (L+N-PE) |
| Lightning impulse current (10/350) | I_{imp} | 25kA (L-N), 50kA (N-PE) |
| Max. discharge current (8/20) | I_{max} | 75kA (L-N), 75kA (N-PE) |
| Voltage protection level | U_p | $\leq 1.5kV$ (L-N), $\leq 1.5kV$ (N-PE) |
| Follow current extinguishing capability at U_c | I_f | 32A fuse will not be triggered at $2kA_{rms}$ |
| Response time | t_A | $\leq 100ns$ |
| Max. back up fuse (L) | | 200A gL/gG |
| Max. back up fuse (L-L') | | 125A gL/gG |
| TOV voltage | U_T | 335V/5sec (L-N), 1200V/200ms (N-PE) |
| Operating temperature range | T_U | -40°C...+80°C |
| Max. cross-sectional area | | 10mm ² ~35mm ² solid / 50mm ² flexible |
| Mounting on | | 35mm DIN rail |
| Enclosure material | | Purple (module) / light gray (base) thermoplastic, UL94-V0 |
| Dimension | | 8 mods (144mm) |
| Test standards | | IEC 61643-11; EN 61643-11; GB/T 18802.11 |
| Certification | | CE (LVD, EMC); RoHS |
| Type of remote signalling contact | | Switching contact |
| Switching capacity | U_N/I_N | AC: 250V/0.5A, DC: 250V/0.1A; 125V/0.2A; 75V/0.5A |
| Cross-sectional area for remote signalling contact | | Max.1.5mm ² solid/flexible |

• Product introduction

1. Summary

BT P BCM 25 RM/3+N is for installation at LPZ 0_A-1 or higher, protecting low voltage equipment against lightning and surge damages. Specially designed for TT/TNS system ("3+1" circuit). Applied in SPD Class I+II (Class B+C) or various power supply system of lightning current surge protection. Designed according to IEC 61643-11, EN 61643-11, GB/T 18802.11.

3. Application

BT P BCM 25 RM/3+N is mainly for installing in indoor main power distribution-box to discharge direct lightning current.

• Installation instruction

According to lightning protection zones concept, for installation at LPZ 0_A-1 or higher. It is usually installed in floor distribution-box or Class I main distribution-box

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 TT/TN-S system("3+1" circuit)
- Adopted hermetical GDT technology, high follow current extinguishing capability
- Extremely low voltage protection level, pluggable
- Double thermal disconnection devices, provide more reliable protection
- Multifunctional connection for conductors and busbars
- Green window will change when fault occurs, also provide remote alarm terminal at the same time

4. Application environment

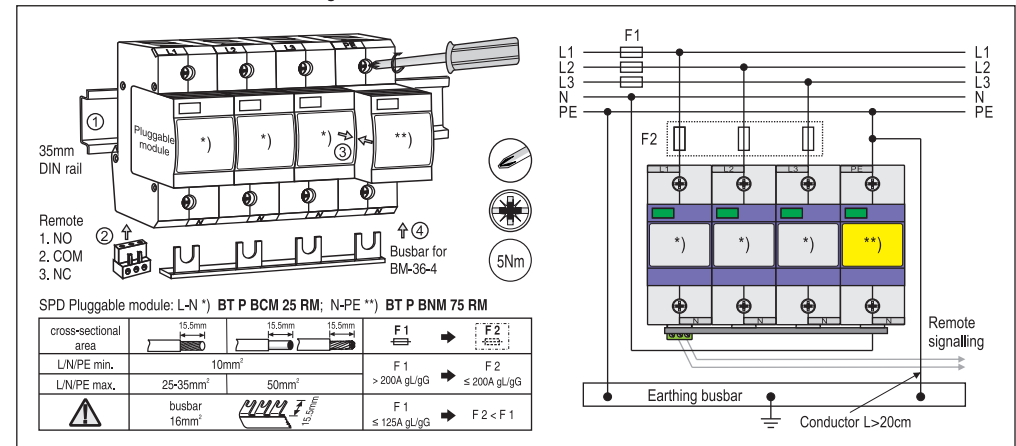
- Temperature: -40°C ~ +80°C
- Relative humidity: $\leq 95\%$ (25°C)

• Installation steps

1. Check the product for integrity of the package; make sure the product window indicates green.
2. Mount the SPD on 35 mm DIN rail.
3. Connect conductors, the cross-sectional area of cable must be larger than 10mm². 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 breaks, or the SPD's window indicates red, electrician should check/replace the SPD.

BT P BCM 25 RM/3+N 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.