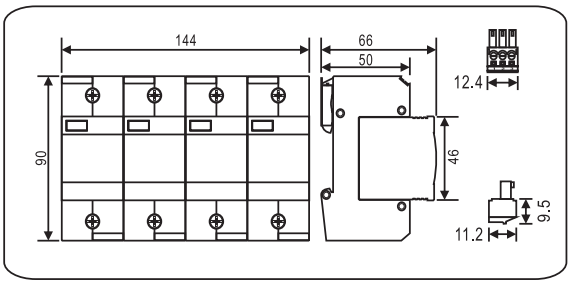
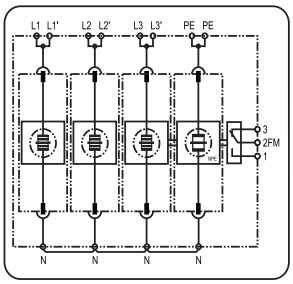
Surge Protection Device Type 1+2+3 for Power Supply System





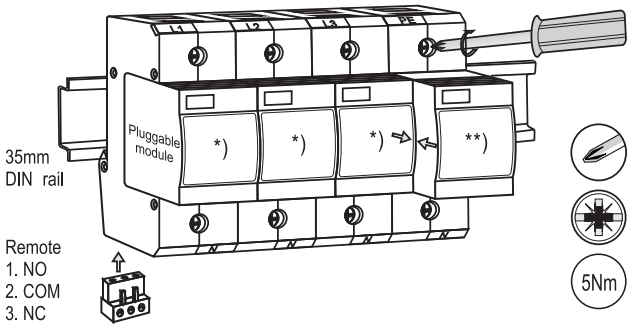
SP BCD 25 FM/3+N-S
No. 900 916

- Pre-wired complete unit
- Pluggable lightning current and surge arrester
- Double thermal disconnection
- High discharge capacity

• Technical data

Type		SP BCD 25 FM/3+N-S
Art.-No.		900 916
SPD according to IEC 61643-11 / EN 61643-11		Type 1 + Type 2 + Type 3 / Class I + Class II + Class III
Nominal a.c voltage	U_N	255V~(L-N) 255V~(N-PE) (50/60Hz)
Rated voltage (max. continuous a.c voltage)	U_C	320V~(L-N) 255V~(N-PE) (50/60Hz)
Lightning impulse current (10/350µs) L+N-PE	I_{total}	100kA
Lightning impulse current (10/350µs) L-N / N-PE	I_{imp}	25kA 100kA
Nominal discharge current (8/20µs) L-N / N-PE	I_n	50kA 100kA
Max. discharge current (8/20µs) L-N / N-PE	I_{max}	100kA 140kA
Voltage protection level L-N / N-PE	U_p	≤ 1.5kV ≤ 1.5kV
Short-circuit withstand capability at max. back up fuse	Ik	$100kA_{rms}$
Short Circuit withstand capability	Isccr	100kA
Response time	t_A	≤ 100ns
Max. back up fuse (L)		250A gL/gG
Max. back up fuse (L-L')		125A gL/gG
TOV voltage L-N / N-PE	U_T	355V / 5sec 1200V/200ms
Operating temperature range (parallel wiring)	T_U	-40°C...+80°C
Cross-sectional area		$35mm^2$ solid / 50 mm^2 flexible
Mounting on		35mm DIN rail
Enclosure material		Light gray thermoplastic, UL94-V0
Dimension		8 mods (144mm wide)
Test standards		IEC 61643-11 / EN 61643-11
Certification		CE; RoHS
Type of remote signalling contact		Switching contact
Switching capacity a.c.		250V/0.5A
Switching capacity d.c.		250V/0.1A; 125V/0.2A; 75V/0.5A
Cross-sectional area for remote signalling contact		Max.1.5mm^2 solid/flexible

• SP BCD 25 FM/3+N-S installation instructions



Type 1+2+3 IEC 61643-11 / Class I+II+III EN 61643-11

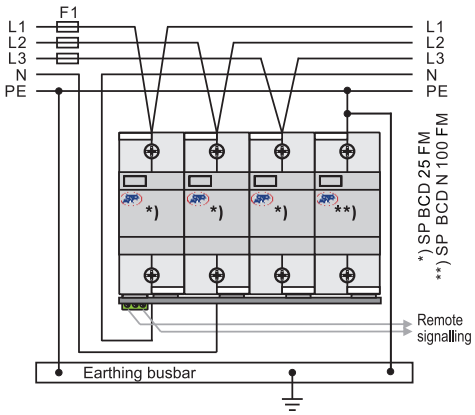
SP BCD 25 FM/3+N-S is to be installed at LPZ 0_A-1

SP BCD 25 FM/3+N-S is applied in TT and TNS system ("3+1" circuit)

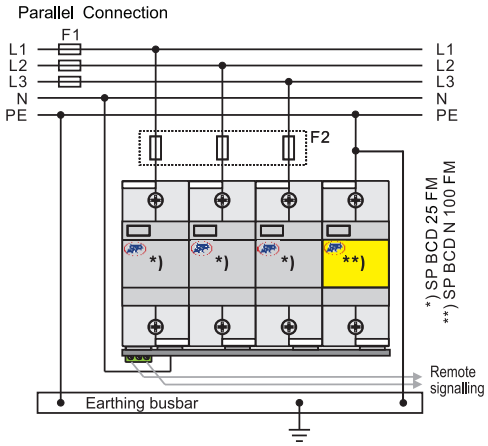
To use the remote signalling below is the configuration Under normal condition terminals 1 and 2 are normally open, 2 and 3 and normally closed. When the device is damaged, this state will be reversed.

TT Configuration

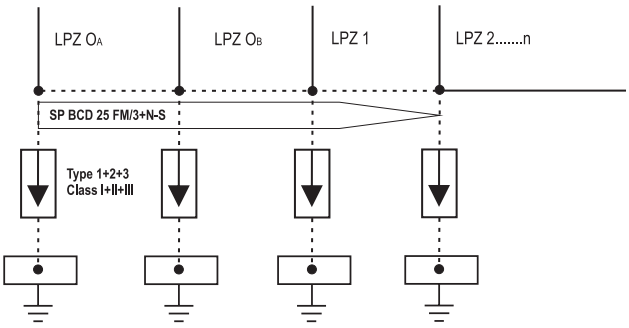
V-wiring Connection



Parallel Connection



SPD Coordination



F 1 / F 2	***Parallel Connection***
F 1	F 1 > 200A gL/gG ➡ F 2 ≤ 200A gL/gG
F 2	F 1 ≤ 200A gL/gG ➡ F 2 < F1
F 1	***V-wiring Connection***
F 1	F 1 > 125A gL/gG ➡ Use Parallel Connection
cross-sectional area	15.5mm | 15.5mm 15.5mm
L / N / PE min.	$16mm^2$ solid/flexible
L / N / PE max.	$25mm^2$ solid/$35mm^2$ flexible
⚠	Busbar $16mm^2$Cu 15.5mm

• Safety Instruction

1. The device may only be connected and installed by an electrically skilled personal. National standards and safety regulation must be kept. (e.g. IEC 60364-5-53)
2. Mount the SPD on the 35mm DIN rail.
3. Check the device externally before installation. If there is any damage or faults detected, the device must not be installed.
4. The device is to be used only within the limits shown as per datasheet. If the values are not observed and connected, it will be damaged and destroyed by exceeding values as stated.
5. Do not temper with the device as the warranty will be void.

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.