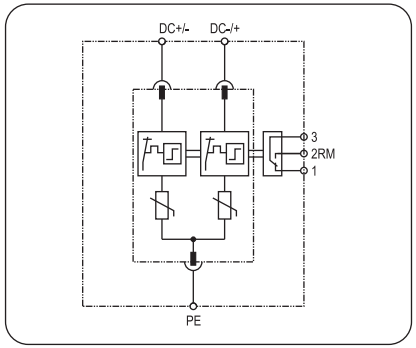
Q-PDL-12

Basic circuit diagram:



• Technical data

Nominal d.c. voltage	U_N	12V-
Rated voltage (max. contnuous d.c. voltage)	U_c	38V-
Nominal discharge current (8/20)	I_n	10kA
Max. discharge current (8/20)	I_{max}	20kA
Total discharge current (8/20)	I_{total}	40kA
Voltage protection level at In	U_p	≤ 200V
Voltage protection level at 3kA	U_p	≤ 150V
Response time	t_A	≤ 25ns
Max. back up fuse	F	10A gL/gG
Operating temperature range	T_u	-40°C...+80°C
Cross- section area (L/N)		1.5mm² ~ 10mm² solid / flexible
Cross-section area (PE)		6.0mm² ~ 25mm² solid / flexible
Mounting on		35mm DIN rail
Enclosure material		Thermoplastic, UL94-V0
Dimension		1 mod
Test standards		IEC 61643-11; EN 64643-11; GB/T 18802.11
Certification		CE
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. 1.5mm² solid / flexible

Ordering information		
Type		**Q-PDL-12**

• Product introduction

1. Summary

Q-PDL-12 is for installation at LPZ 0_B-1 or higher, protecting DC 12V voltage equipment from surge. Applied in modular SPD Class (Class C) for DC power supply system and PV DC power supply system. Designed according to IEC 61643-11; EN 61643-11; GB/T 18802.11.

3. Application

Q-PDL-12 is for DC 12V voltage power supply systems, such as telecommunication room, microwave communication room and so on. .

2. Main character

- Combined DC surge arrester, slim 18mm form factor
- Pluggable module, easy for installation and maintenance
- High discharge capacity, quick response
- Double thermal disconnector device, providing more reliable protection
- Multifunctional terminal for connecting conductors and busbars
- Windows 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 instruction

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

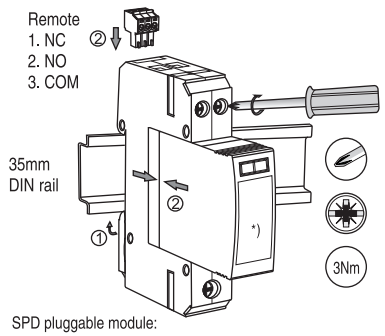
1. The value of FUSE should not be larger than the max. withstand capacity of the SPD's backup fuse value.
2. Under the status of the max. current in the power supply & close loop circuit available current, the fuse should be able to disconnect when overloaded or short-circuited.
3. Take 1 & 2 into consideration,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

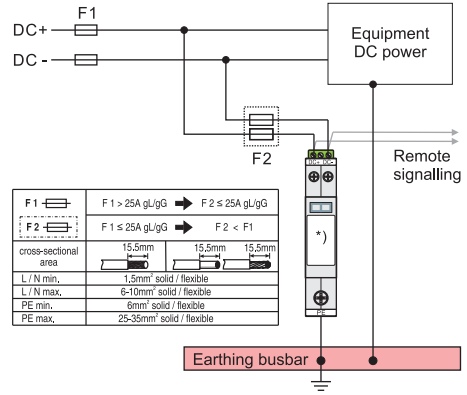
• Installation steps

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-section 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 2 and 3 (When normal, 1 and 3 close, 2 and 3 open; 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 indicates green, 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.

Q-PDL-12 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.**