

DC Power Surge Protective Device Manual

► Functions and Applications

The DC SPD complies with IEC31-61643 and is connected in parallel with the power supply line. It utilizes its own volt-ampere characteristics, in which the current increases exponentially when the voltage across its terminals exceeds the specified limit, thereby achieving surge suppression, current discharge, and voltage limiting functions. This ensures the protection of power supply lines, connected equipment, and personnel safety.

► Technical Parameters

Model	PR-PH1500-B+C
Maximum Continuous Operating Voltage U_c	1000VDC
Voltage Protection Level Up	$\leq 3.6\text{kV}$
Impulse Current(10/350 μs) I_{imp}	6.25kA
Nominal Discharge Current(8/20 μs) I_n	20kA
Maximum Discharge Current(8/20 μs) I_{max}	40kA
SPD Compliance: EN 61643-11	Type2
Response Time t_a	<25ns
Leakage Current	+/- T_0 μA ; PE: <20 μA ; + to -: <20 μA ;
Operating Temperature Range T_u	-40°C ~ 80°C
Operating Relative Humidity (at Room Temperature)	$\leq 95\%$
Failure Indicator	Green: Normal; Red: Fault
Recommended Conductor Cross-Section	Phase Wire: 4-25mm ² / multi-core flexible cable Ground Wire: 6-25mm ² / multi-core flexible cable
IP Rating	IP20
Terminal Screw	M6
Terminal Screw Torque	2.5N·m
Enclosure Flame Retardant Rating	UL94 V-0
Mounting Rail	35mm DIN rail EN 60715
Remote Signaling Parameters	
Remote Output Interface	Normally Open (NO), Normally Closed (NC), Common (C)
Maximum Allowable Contact Current for Remote Signaling (AC/DC)	AC: 1A/125VAC, DC: 0.5A/48VDC
Terminal Screw	M2
Terminal Screw Torque	0.4N·m

► Installation Dimensions (Unit: mm)

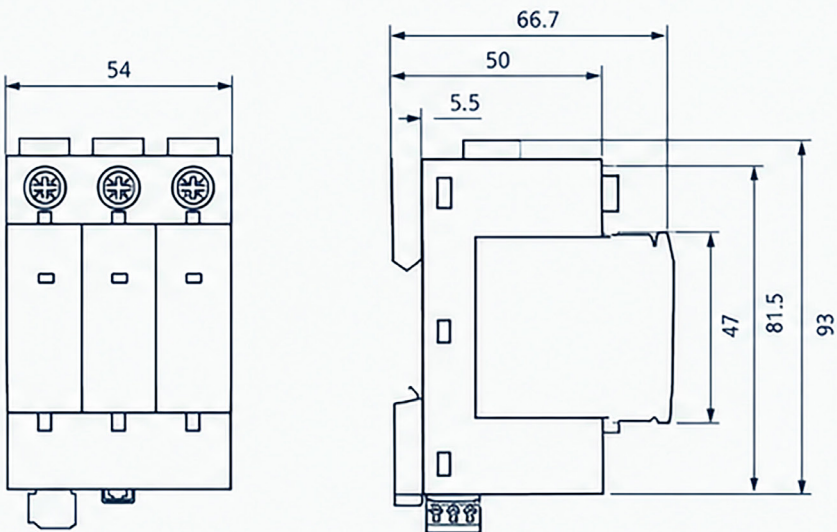


Figure 1

► Failure Indicator Window

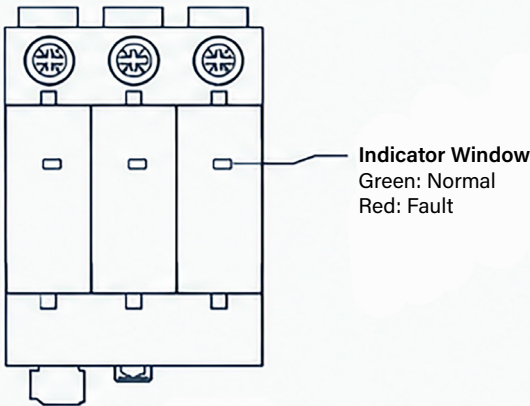


Figure 2

► Wiring Schematic

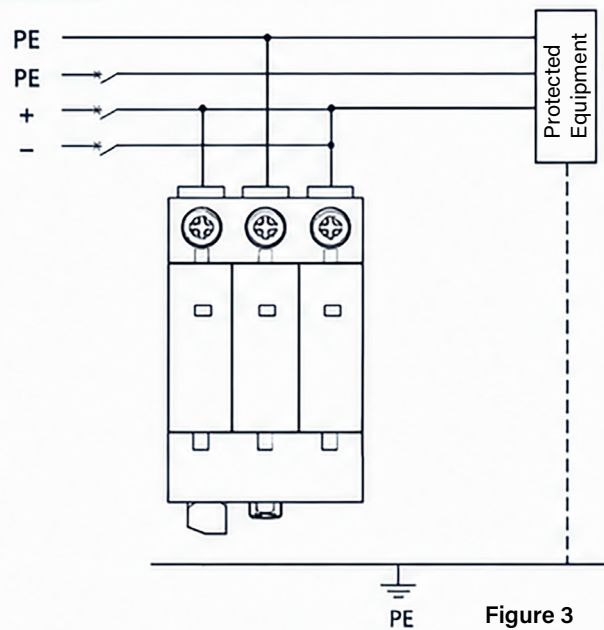


Figure 3

► Remote Signaling & Wiring

Rated Operating Voltage
AC 1A/125V
DC 0.5A/48V

With remote signaling interface: a remote signal will be triggered if any pole fails.

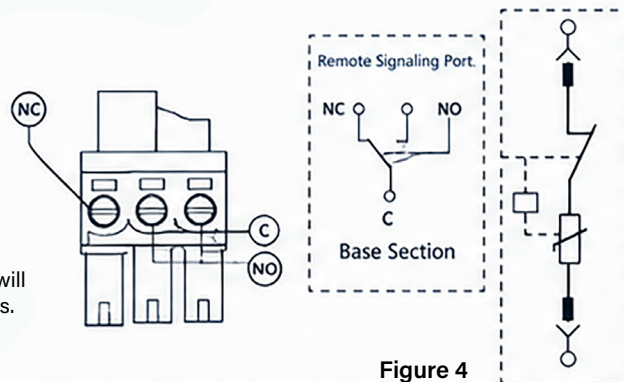


Figure 4

► DIN Rail Mounting and Wiring

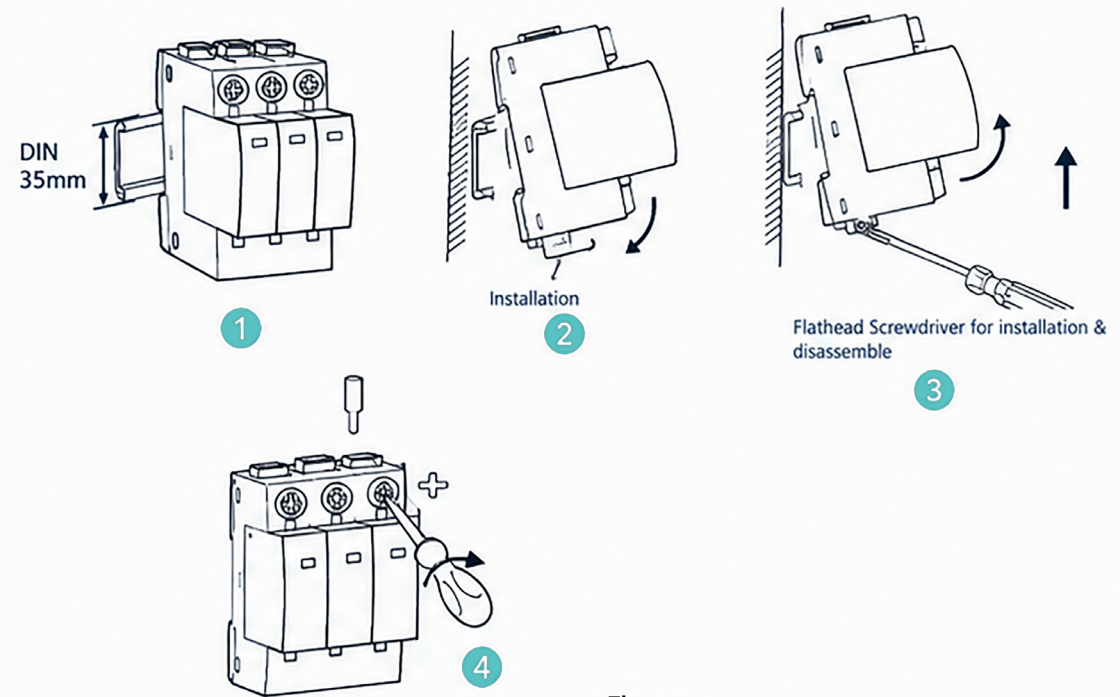


Figure 5

► Precautions

1. Degradation/Fault Indication: The failure indicator window will display red.
2. Wiring: All exposed copper parts must be covered with insulating sleeves. Wiring connected to the surge protective device should be kept as short as possible.
3. Warranty: Within 36 calendar months from the date of purchase, any damage or malfunction caused by manufacturing defects will be replaced with a similar product. After 36 months, limited repair services are available.
4. Installation: Must be carried out by certified professionals after confirming the SPD has no defects and in compliance with national standards and safety regulations.
5. Usage Conditions: The SPD must be used under specified conditions. Exceeding its rated limits may cause damage to the SPD or connected equipment.
6. Unauthorized Modifications: Any quality or safety issues arising from unauthorized disassembly, alteration of appearance or characteristics, or improper use of the product without the company's permission will be the sole responsibility of the user.