

HUDY1PV

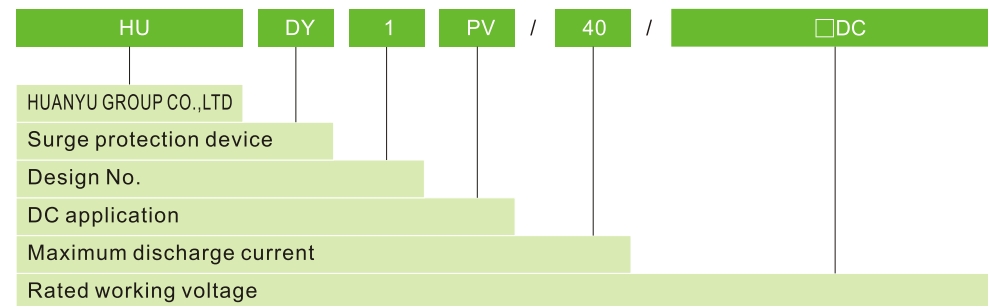
Photovoltaic surge protection device



1. Application

HUDY1PV PV surge protection device is a surge protection specialized for solar PV generation system, mainly used in generation system with voltage DC 1000V and the maximum discharge current capacity 40kA. When overvoltage surge caused by lightning strike or other reasons appears, the protector will rapidly act to protect electric equipment within nanoseconds, leading the surge voltage to the ground.

2. Model and meaning



3. Normal working conditions

- Normal service condition
 - Altitude: $\leq 2000\text{m}$
 - Ambient temperature: $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$, limit range: $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$
 - Relative humidity: 30%~90% at 25°C
 - Current type : DC
 - Voltage: the voltage continuously exerting in connecting terminal should not exceed its maximum continuous operating voltage
 - Protection class: IP20
- Normal mounting conditions
 - Inclination angle: $\leq 5^{\circ}$
 - At place without obvious shake and impulsive vibration
 - At places without explosive risk, without gases or conducting dust that may be corrosive to metal or cause damage to the insulation.
 - Adopts TH35-7.5 standard mounting rail
- Normal storage and transport conditions
 - Range of temperature: $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$
 - Relative humidity (at $+25^{\circ}\text{C}$): $\leq 90\%$
 - Handle with care and avoid violent collision during transportation

4. Structural features

- Adopt high quality pressure sensitive resistance with powerful function, high discharge capacity and reliable quality
- Modular design, easily to test and replace
- With remote control device, convenient for remote monitoring
- Failure indication clearly showed as red mark in monitoring window
- Short response time

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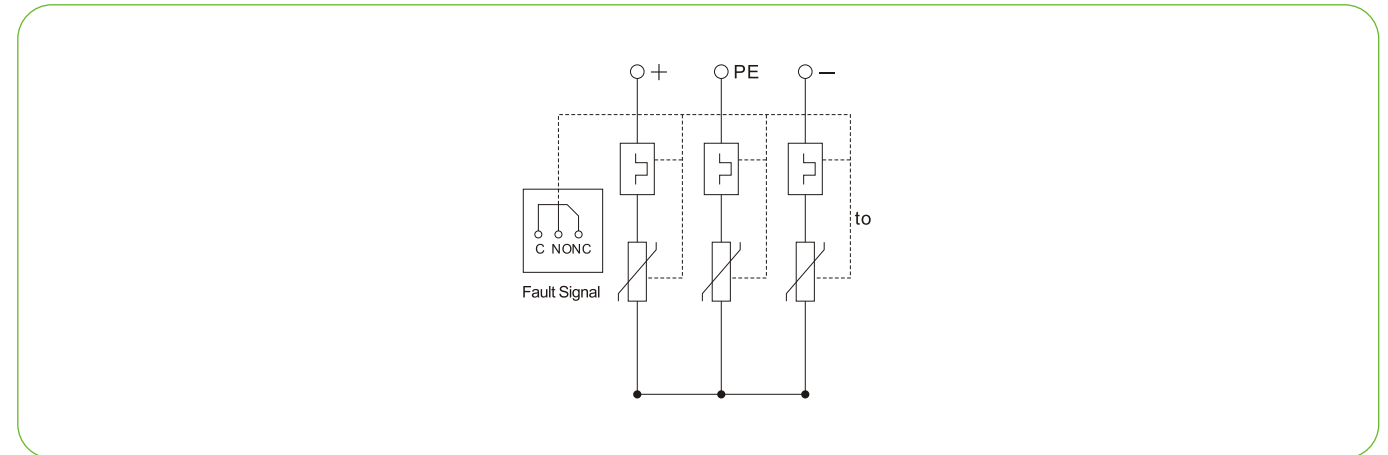
5. Main technical parameters

Main technical parameter of PV surge protection device

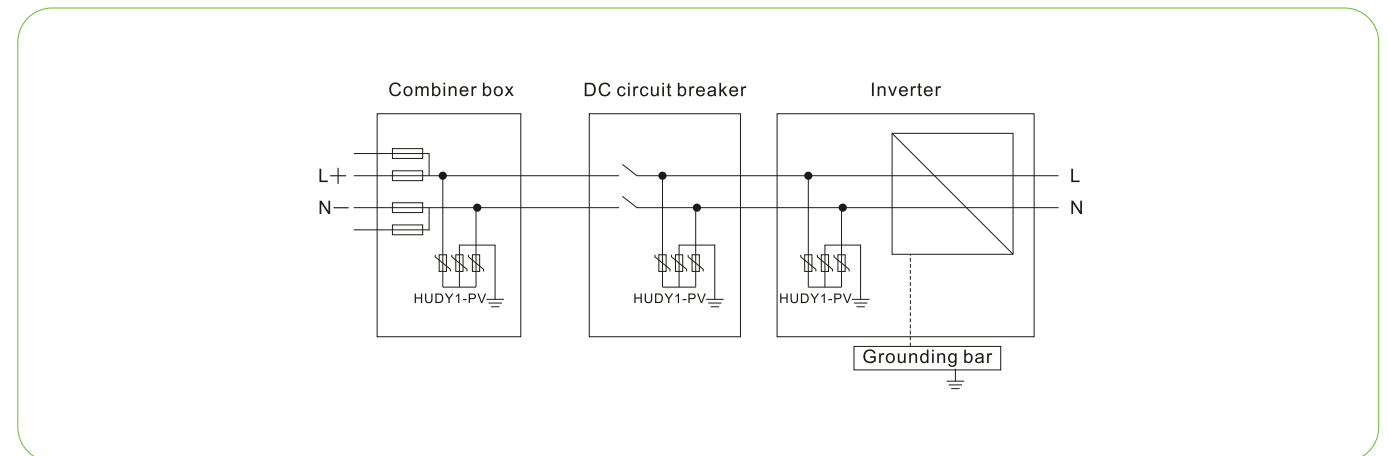
Items	Model	HUDY1-PV-40/600DC	HUDY1-PV-40/1000DC
Rated working voltage U_n		600VDC	1000VDC
Maximum continuous working voltage U_c (L+)-(L-)/(L+/L-)-PE		670VDC	1000VDC
Maximum discharge current I_{max}		40kA(8/20 μ s)	40kA(8/20 μ s)
Nominal discharge current I_n		15kA(8/20 μ s)	15kA(8/20 μ s)
Protection level U_p (L+)-(L-)/(L+/L-)-PE		2.8kV	4.0kV
Response time t_a		$\leq 25 \mu$ s	
Protection mode		(L+)-(L-)/(L+)-PE/(L-)-PE	
Suggested wiring(multi-strand)		16~25mm ²	
Remote signal equipment(option)		Built-in	
Working instruction		Red in window means product failure; it needs to be replaced	
The maximum of signal contact		250VAC/0.1A 125VDC/0.2A 75VDC/0.5A	

6. Wiring diagram

1. Schematic diagram



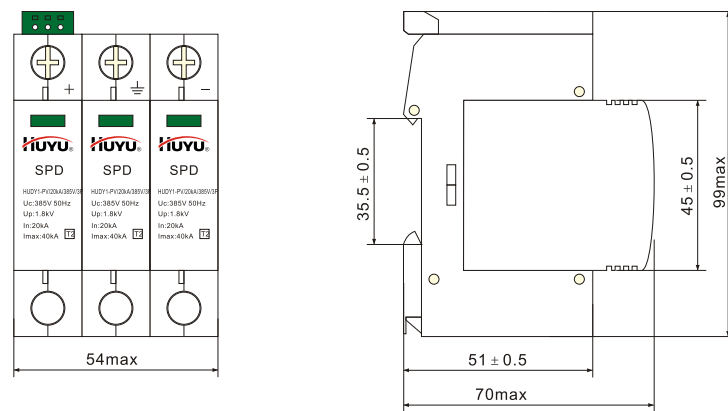
2. Wiring diagram



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7. Contour and mounting dimension



8. Installation and maintenance

1. Power down before mounting, do not operate with power
2. Cascade fuse or circuit breaker in front-end of anti-lighting module
3. Mount as per wiring diagram, + refers to positive wire, - refers to cathode wire, and PE refers to grounding wire. After wiring, switch on to check if it works-
4. Put the module in place after installation, to check if the anti-lighting module works.
5. Regularly test and check the fault display window when using the anti-lighting module, if the window shows red or the remote control device alarms, the anti-lighting module needs maintaining or replacing.

9. Ordering instruction

Please indicate the product model, rated working voltage, the maximum discharge current and quantity when order HUDY1PV series PV surge protection device (SPD)

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