

Model: UT-10-12/UT-10-24/UT-40-48/UT-40-200

(Product Name: DC power surge protector)

User manual



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1. Overview

DC power surge protectors are mainly used for C-level protection of DC power distribution systems. They are used to protect electrical and electronic equipment from lightning electromagnetic pulse induced voltages, operating transients and resonance (<100 μ s) overvoltages. They are widely used in communication equipment, power protection in electrical, electrical appliances, power equipment, security monitoring, transportation, industrial control, aviation and other fields. This series of products has the characteristics of extremely fast response time, built-in thermal protection, low residual voltage, timely tripping, etc., and the flame retardant level reaches V-0 level, which can prevent fires to the greatest extent and provide safety protection.

2. Safety guide

- Only professional and technical personnel are allowed to install, maintain and replace lightning protection products according to this manual.
- Installation must be carried out in the case of power failure.
- Please check the working status of the lightning arrester regularly, and replace it in time if the lightning arrester fails.
- Surge protector and circuit breaker should keep a distance of 3-18cm.

3. Specifications

Model	UT-10-12	UT-10-24	UT-40-48	UT-40-200
Operating voltage (Un)	12VDC	24VDC	48VDC	200VDC
Max. operating voltage	24VDC	30VDC	85VDC	320VD
Nominal discharge current (In)	5kA		20kA	
Maximum flow capacity (Imax)	10kA		40kA	
Protection level (Up is In)	≤100V	≤150V	≤350V	≤1200V
Access wire area	≥4 mm ²		≥6 mm ²	
Remote Signal Definition (Optional)	NC-COM: turn off, COM: common point, NO-COM: turn on			
failure indication	Green: Normal, Red: Failed			
Response time (tA)	25ns			
Dimensions	90*36*65mm			
protection level	IP20			
preposed fuse	40AgL/gG			
protection mode	+/PE, -/PE			
Flame retardant level	V0/red			
installation method	35mm DIN rail installation			
Operating environment	Temperature -40~+85℃, relative humidity≤95%(25℃), height≤3km			

4. Installation environment

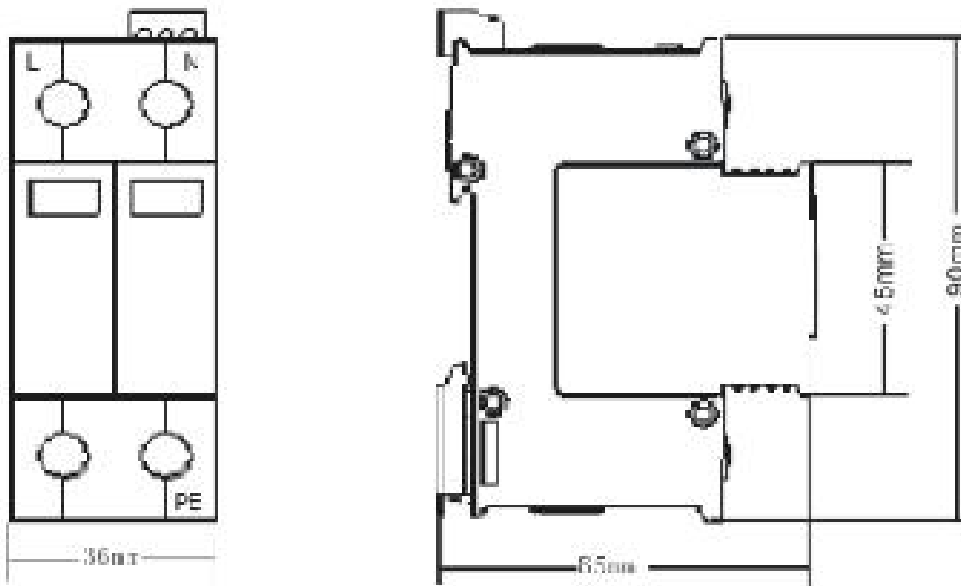
- Please make sure it is indoors or in a waterproof box.
- Avoid direct sunlight.
- Avoid installing in places with severe vibration, it should be installed on DIN35mm rail.
- Make sure that the working voltage of the surge protector complies with the mains working voltage.
- Ensure that the lightning arrester can be reliably grounded, and the power frequency grounding resistance is lower than 10 ohms.

5. Installation preparation

Tools: Phillips screwdriver, flat-head screwdriver, wire stripper, etc.

Auxiliary material	Specifications	QTY	Function
preposed fuse	40AgL/gG	1	installed before the lightning arrester
+, - connecting wire	$\geq 6\text{mm}^2$	Each 1	The length depends on the site conditions
PE connecting wire	$\geq 10\text{mm}^2$	1	Nearby grounding
remote signal line	$\geq 0.05\text{mm}^2(30\text{AWG})$	2	Be used to monitor the working status of the lightning protection module
Rail Fixing	35mm rail installation	2	Fixed SPD
mounting rail	DIN35mm	1	The length depends on the actual situation
screw	M4	2	Fixed rails

6. Dimension



7. Malfunctions

Malfunctions	Reasons	Solutions
The display window of the SPD is red.	The lightning protector is damaged by lightning strike or other external force.	Contact the lightning protection manufacturer or agent to replace the lightning protection device.
After the remote signal is connected, the alarm or the line is disconnected.	The remote signal wiring is wrong or the lightning protector is damaged.	Please refer to the instruction manual to adopt the correct remote signal wiring method or confirm whether the lightning protector is damage.
Circuit breaker trips frequently.	The parameters of the circuit breaker do not match/the leakage current of the surge protector is too large.	Replace circuit breaker/replace lightning protector.