

DC surge protective device

User manual

7. Package list

- Quality certificate 1pc
- User manual 1pc
- Pack list 1pc

8. Following specification can customized

- Nominal discharge current: 10kA Max discharge current: 20kA
- Nominal discharge current: 30kA Max discharge current: 60kA
- Nominal discharge current: 40kA Max discharge current: 80kA

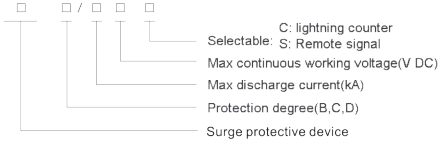
1.Usage and application range

DC surge protective device is widely used in Induction thunder and influence of direct lightning or other transient overvoltagesurge protection, to protect Dcpower system, photovoltaic system, wind power generation and other industrial Dcpower equipment safeto use.

2. Normal working condition

- 2.1 Above sea level no more than 3000meters.
- 2.2 Temperature : -40℃~+85℃.
- 2.3 Relative humidity: less than 95%.

3. Model selection



4. Features

- 4.1 Nice outlooking, module design, plugable type, easy to replace.
  - 4.2 Has over-heat protection function to avoid of fire happening.
  - 4.3 Working status indicate, green means normal, red means fault
- Response time <25ns, large discahrge capacity, low residual voltage.

- 4.4 No need power off can change module.
- 4.5 Standard 35mm DIN rail installation.

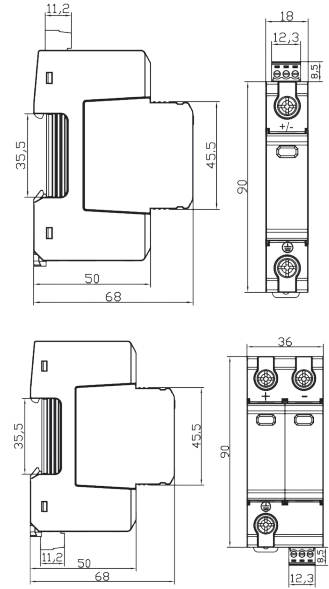
5. Specification details

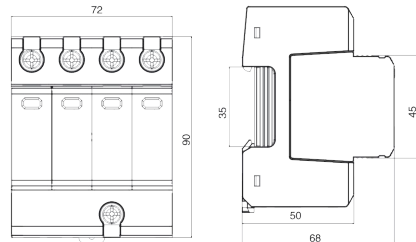
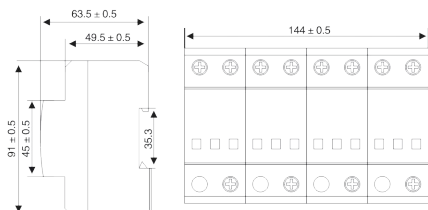
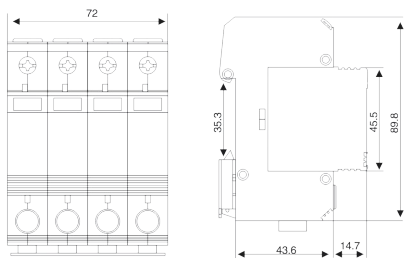
Nominal discharge current In(kA)	Max discharge current Imax(kA)	Max continuous working voltage Uc(V DC)	Voltage protection level Up(kV)	Response time T<sub>A</sub>(ns)	Wire size	Installation type	Indicate window	Leakage current (μA)	Poles
20kA	40kA	15	0.4	<25	4-6 mm <sup>2</sup>	35mm din rail	Green means normal Red means fault	≤20	1P 2P 3P
		36	0.4						
		60	0.6						
		75	0.8						
		100	0.8						
		120	0.8						
		150	0.8						
		200	1.5						
		220	1.5						
		240	1.5						
		350	1.5						
		500	1.8						
600	2.2								
800	2.9								
1000	3.6								
1200	3.8								
1500	5.6								
1800	6.8								

6. Installation instruction

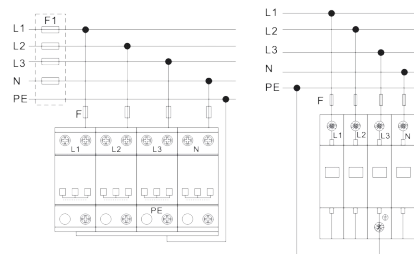
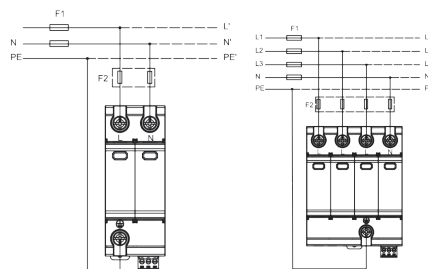
- 6.1 Do power off before installation, forbidden to operation on power.
- 6.2 Before surge protective device please in series fuse or circuit breaker.
- 6.3 Installation should by professional person, during wiring, please conect ground wire in advance.
- 6.4 Insert module into place after finish installaion, and check surge protective device wheter in normal work, if window shows green, means work fine.If window turns red means falut, please stop to use.
- 6.5 During usage, please check widnow timely, when window shows red or remote signal output alarm, please stop to use.
- 6.6 Please wiring according to wiring diagramer, wire section no less than standard requirement, and should be as leveler, straighter and shorter as possible.
- 6.7 Please use this surge protective device in DC power line only.
- 6.8 Remote terminal is optional, and C+NO means normally open, C+NC means normally closed, C means common contact.
- 6.9 Lightning counter can note lightning number of times, this is optional according to requirement.

7. Dimention and wiring diagrammer





### 7. Installation diagrammer



### 8. Packing list

- 8.1 Product certificate 1pc
- 8.2 User manual 1pc
- 8.3 Packing list 1pc



## AC Surge Protective Device

## User manual

### 1. Usage and application range

1.1 Surge protective device (SPD) suits for low voltage AC power distribution system. It was paralleled between the AC power supply and system equipment, and has a strong current discharge capability, to protect the equipment damage against transient overvoltage which was caused by lightning overvoltage or operating overvoltage.

#### 1.2 Normal working condition

- 1.2.1 Altitude does not exceed 3000 meters.
- 1.2.2 Temperature:  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ .
- 1.2.3 Relative humidity: less than 95%.

### 2. Model selection

-  /

Max. discharge current (kA)  
Protection degree (B, C, D)  
Surge protective device

### 3. Features

- 3.1 Change module no need power off.
- 3.2 Nice outlooking, module design, plugable type, easy to replace.
- 3.3 Has over-heat protection function, low residual voltage.
- 3.4 Window color shows working status, green means normal, red means fault.
- 3.5 Remote signal terminal function selectable,  
C+NC means normally close,

- C+NO means normally open,
- C means common contact.
- 3.6 35mm standard DIN rail installation.
- 3.7 Response time less than 25ns.

### 4. Specification details

Type	Rated working voltage $U_{in}$ (V AC)	Max. continuous working voltage $U_{c}$ (V AC)	Nominal discharge current (kA)	Max. discharge current (kA)	Voltage protection level (kV)	Response time (ns)	Leak current ( $\mu\text{A}$ )	
20kA	220/380	275	10	20	1.2	$\leq 25$	$\leq 20$	
			385	10	20			1.5
			420	10	20			1.5
			440	10	20			1.5
40kA	220/380	275	20	40	1.8	$\leq 25$	$\leq 20$	
			385	20	40			2.0
			420	20	40			2.0
			440	20	40			2.0
60kA	220/380	275	30	60	2.1	$\leq 25$	$\leq 20$	
			385	30	60			2.4
			420	30	60			2.2
			440	30	60			2.2
80kA	220/380	275	40	80	2.2	$\leq 25$	$\leq 20$	
			385	40	80			2.5
			420	40	80			2.5
			440	40	80			2.5
100kA	220/380	275	60	100	2.5	$\leq 25$	$\leq 20$	
			385	60	100			2.5
			420	60	100			2.5
			440	60	100			2.5
120kA	220/380	275	60	120	2.5	$\leq 25$	$\leq 20$	
			385	60	120			2.5
			420	60	120			2.5
			440	60	120			2.5
150kA	220/380	275	80	150	3.2	$\leq 25$	$\leq 20$	
			385	80	150			3.2
			420	80	150			3.2
			440	80	150			3.2
NPE Module	220	255	10	20	1.2	$\leq 100$	$\leq 100$	
			20	40	1.4			
			30	60	1.6			
			40	80	2.0			
			60	100	2.2			

### 5. Installation instruction

- 5.1 Do power off before installation, forbidden to operation on power.
- 5.2 Before surge protective device please in series fuse or circuit breaker.
- 5.3 Installation should be by professional person, during wiring, please connect ground wire in advance.
- 5.4 Insert module into place after finish installation, and check surge protective device whether in normal work, if window shows green this means work fine. If window turn red means fault, please stop to use.
- 5.5 During the use of the protector, it should regularly check and check the status of the fault display window. When the fault display window is red or the remote signal terminal outputs an alarm signal, the protector is no longer available and should be repaired or replaced in time.
- 5.6 Please wiring according to wiring diagrammer, wire section no less than standard requirement, and should be as straighter and shorter as possible.

### 6. Dimension

