

RES2 Surge Protective Device for AC Power

RES2 Surge Protective Device User Manual

RES2-20Series、RES2-40Series、RES2-80Series



Caution

- Read this manual carefully before installation !
- Installation, adjustment and inspection must be carried out by professional electrical engineers !
- Must comply with relevant national and local regulations and standards.
- Be sure to check and confirm that the product has no external damage before installation. Do not use if there is external damage.
- Please confirm that the maximum operating voltage of the product application system does not exceed the maximum allowable value of the product, U_c .
- Please follow the recommended copper wire requirements in this manual, and reliable grounding.
- Please follow the recommended maximum backup fuse spec.
- Please replace the product with the same specifications in time as the color of the product status window changes from green to red.
- Please replace the whole product as the socket is damaged.

The company reserves the right to modify the product and change the specification. If there is any update, it will be notified separately.

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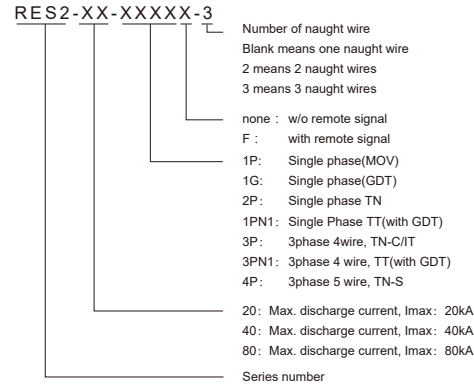
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General

RES2 series AC power SPDs are designed according to the IEC and GB standards. It enable the connection between the power supply system and an equipotential network instantaneously when the surge occurs and limits the residual voltage to a certain level to protect the devices.

Nomenclature



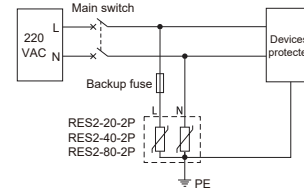
Main technical parameters

| Parameter \ Model | RES2-20 | RES2-40 | RES2-80 | RES2-80G |
|---|-----------------------|---------------------|---------------------|---------------------|
| Nominal operating voltage U_n | 220V AC | 220V AC | 220V AC | - |
| Max. operating voltage U_c | 320V AC | 385V AC | 385V AC | 255V AC |
| Nominal discharge cur. $I_n(8/20\mu s)$ | 10kA | 20kA | 40kA | 40kA |
| Max. discharge cur. $I_n(8/20\mu s)$ | 20kA | 40kA | 80kA | 80kA |
| Protection level U_p | 1.2kV | 1.7kV | 2.0kV | 1.2kV |
| Response time | < 25ns | < 25ns | < 25ns | < 100ns |
| Leakage current | < 20 μ A | < 20 μ A | < 20 μ A | - |
| Max. backup fuse | 40A | 80A | 125A | - |
| Connection wire section area L/N | $\geq 2.5\text{mm}^2$ | $\geq 4\text{mm}^2$ | $\geq 4\text{mm}^2$ | $\geq 4\text{mm}^2$ |
| Connection wire section area PE | $\geq 4\text{mm}^2$ | $\geq 6\text{mm}^2$ | $\geq 6\text{mm}^2$ | $\geq 6\text{mm}^2$ |

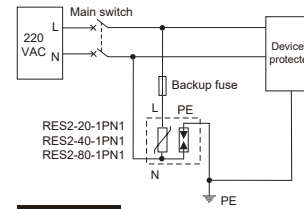
Status indicator : Green : OK ; Red : Failed
Working temperature : $-40^\circ\text{C} \sim +70^\circ\text{C}$
Relative humidity : 5%~95%
Housing protection level (IEC60529) : IP 20
Housing Material/flame-retarded level (UL94) : PA66/V0
Installation : Standard 35 mm DIN rail
Test Standards : GB/T18802.1 ; IEC61643-11
Protection level : Surge Protection level , class II for Power
Certificate Authority : Shanghai lighting protection center
Remote signal output : 250VAC/0.5A ; 24VDC/0.5A

Typical applications

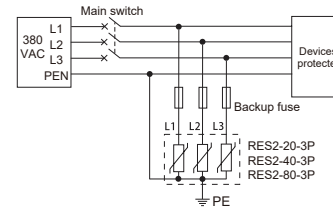
Single phase TN system



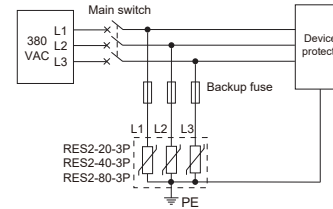
Single phase TT system



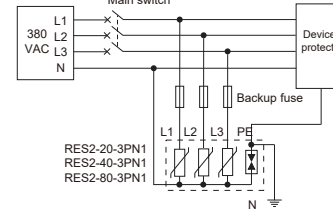
TN-C system



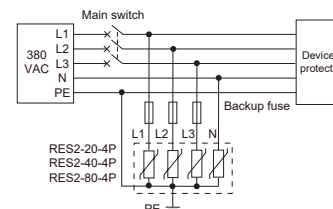
IT system



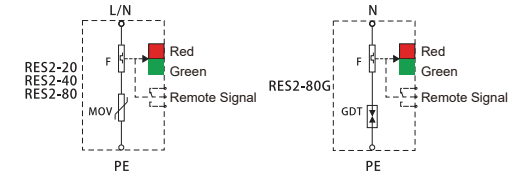
TT system



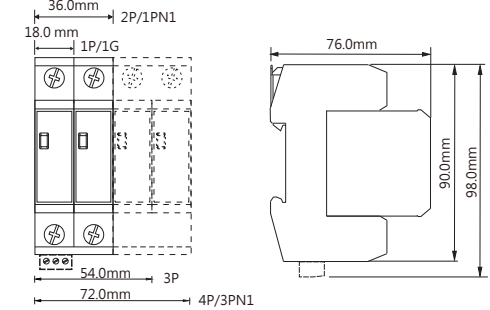
TN-S system



Schematic diagram



Dimensions



Maintenance

1. Check the status indicator and replace the failed module or whole product if the status indicator is not all green.
2. Connect the terminal blocks of remote signal with solid or stranded conductor. The conductor section area is small than 1.5mm² and strip length is between 6 and 7mm. Tightened by screw with 0.2 Nm torque.
3. Before Power on, Make sure the connection tightened firmly between conductors and terminal blocks and grounding is reliable.
4. The product undergoes rigorous inspection and quality control before leaving the factory. If abnormal conditions are found, please contact us.
5. 5 years guarantee from the date of delivery, free replacement of malfunction products.



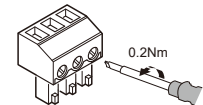
Green-OK



Red-failed



Remote Signal Output



0.14 mm² - 1.5mm²

