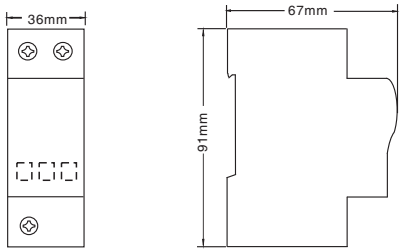
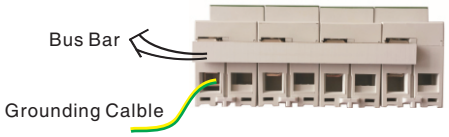
Dimension



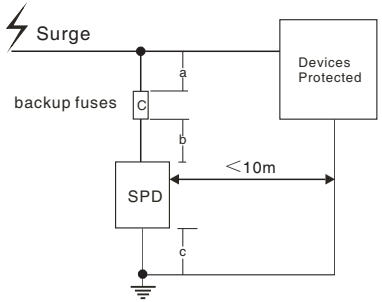
Installation

CZLB-160/440 series SPDs are delivered in single pieces. They should be connected by a bus-bar and then you can choose any piece for ground connection. Otherwise you need to ground all pieces. Loosen all the screws completely before you put the bar in and then tighten the screws except the one you chose for ground connection.

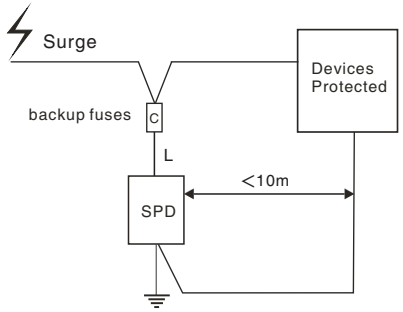


In case of the main circuit broken because of a failed SPD, a protection device such as or fuse should be installed before the SPDs. According to our tests, protection devices with a nominal current of 100A are recommended. The cross sectional area of the upper (for L/N connection) cable should be no less than 6mm^2 and the cross sectional area of the cable for grounding should be no less than 10mm^2.

When install SPDs, the connection cable should be as short as possible. As the diagrams shown below, L(L=a+b+c in normal connection) should be less than 0.5 meters. Cable between SPD and the protected device should be less than 10m. The housing of the protected device should be grounded via SPD terminals.



Normal connection



V connection

Repalcement

Check the status indicator. If the indicator is red, it need to be replaced.

Status indication: a red window indicates failure.

Maintenance

1.SPDs must be reliably grounded.
2.Make sure the connections between cable and terminals are firm and correct.
3. SPDs' quality are well controlled and strictly inspected before delivery. If non-functional ones are found during operation, please contact us early enough.
4.Within 5 years of delivery, any problems occurred during normal operations can get treatments free.

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CHENZHU | User Manual

Surge Protective Device

CZLB-160/440 Series

XK06-014-00557 生产许可 5年质保

Before using the product, please read this manual carefully and save it well.

⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or use. If there is something unclear ,you can dial our technic support hotline;
- Prevent friction, avoid electrostatic;
- Users are not allowed to dismantle or repair the SPD otherwise it will induce malfunction.

CZ.CZLB-160/440.11(S)E-5.2/18.01

General

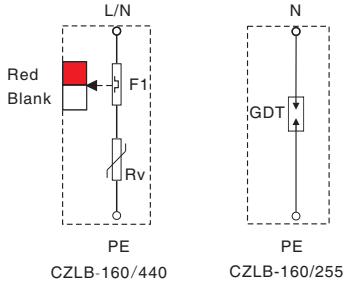
CZLB-160/440 series AC power supply SPDs are designed according to the domestic criterials. It enables the connection between the power supply system and an equipotential network instantaneously when the surge occurs and limit the residual voltage to a certain level to protect the devices protected. Normally, it is used in lighting protection zone 1. For better protection effect, SPDs with different protection levels should be used downstream.

Main technical parameters

Parameter \ Type	CZLB-160/440	CZLB-160/255
Nominal operating voltage Un	220V AC	255V AC
Max. operating voltage Uc	440V AC	255V AC
Nominal discharge current In(8/20μs)	80kA	80kA
Max. discharge current Imax(8/20μs)	160kA	160kA
Impulse current limp(10/350μs)	15kA	50kA
Protection level Up (80kA,8/20μs)	2.8kV	2.5kV
Response time	<25ns	<100ns
Leakage current	<20μA	–
Status indication	Blank: Ok Red: failed	–
Over current protection	200A	–
Connection cable sectional area L/N	⩾6mm²	⩾6mm²
Connection cable sectional area PE	⩾10mm²	⩾10mm²

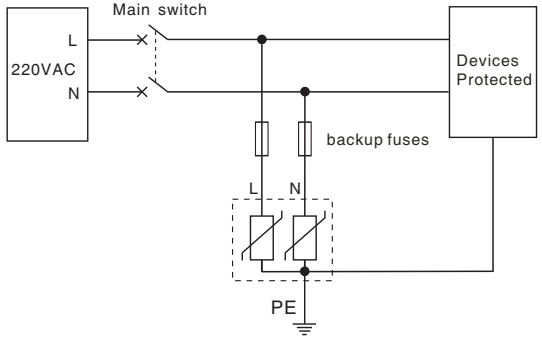
Operation temperature: -40℃-70℃
Relative humidity: 10%-90%
Housing protection level(IEC60529): IP 20
Housing material flame-retarded level(UI94): PA66/V0
Installation: Standard 35mm DIN rail
Testing standards: GB 18802.1/IEC 61643-1
Performance test: Shanghai Lightning Protection Center

Schematic diagram

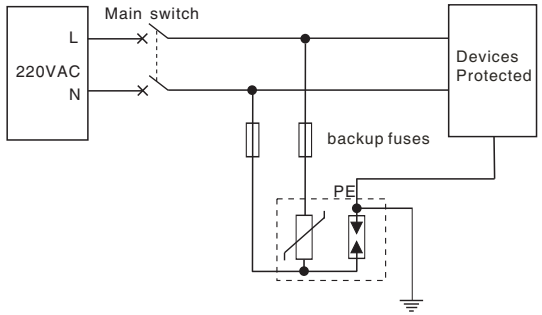


Typical applications

Single phase system

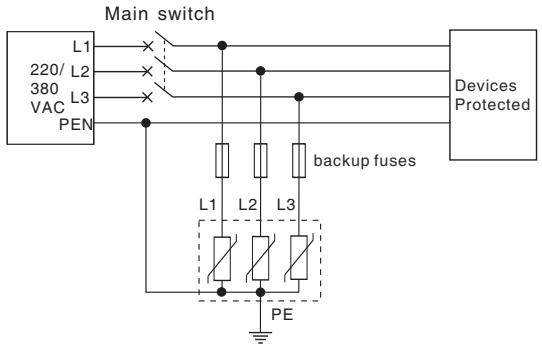


CZLB-160/440/2P



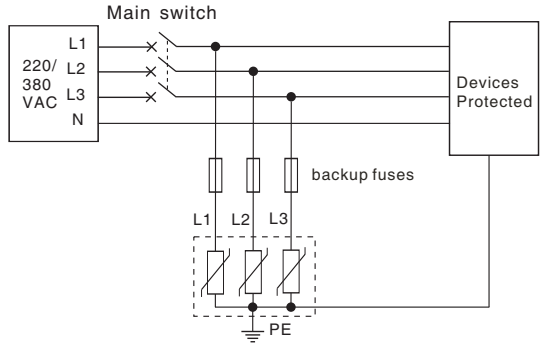
CZLB-160/440/1P+1

TN-C system



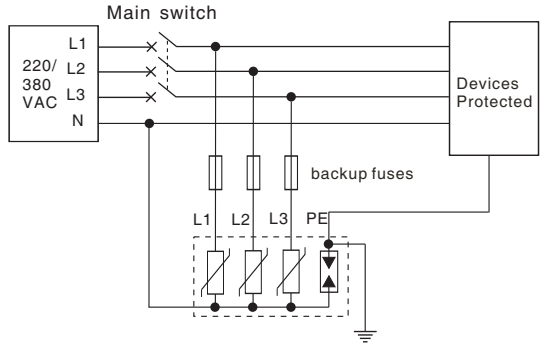
CZLB-160/440/3P

IT system



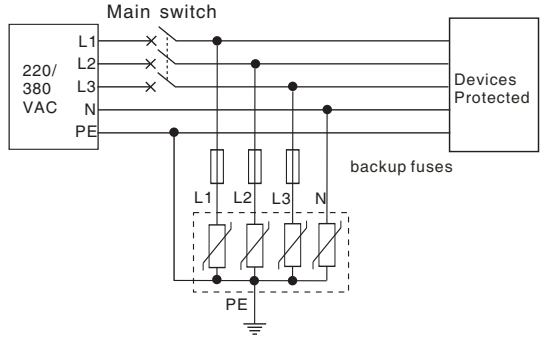
CZLB-160/440/3P

TT system



CZLB-80/440/3P+1

TN-S system



CZLB-160/440/4P