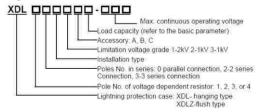
# Lightning protection case



#### Application:

XDL series power source lightning protection case is applied in a lightning protection equipment of low voltage electric net, which is installed in various indoor low voltage distribution boards. When the indoor electric net is lightning over voltage (conductive wave) or operating over voltage, the lightning protection case can immediately lead the energy into the earth to limit the over voltage impulse within the peak value. So that this can protect the electric apparatus from lightning or the operating over voltage impulse.

#### Model and meaning



#### For example:

XDL20C1A is applied in single phase, installed under C type conditions, parallel connection type, limitation voltage <2kV. No accessory, the surface cover is hanging type XDLZ40B1D is applied in three phase four line, installed under B type conditions, parallel connection type, limitation voltage <2kV. Accessory: alarm, fuse, the surface cover is flush type

XDLZ43B3D5 is applied in three phase four line, installed under B type conditions, series connection type, the pole No. is 3, limitation voltage <1kV. Accessory: alarm, lightning counter (2 digits), fuse, voltmeter, ampere meter. The load capacity is 50KVA, the surface cover is flush type

Basic parameters

(1) rated working voltage

(3) max. discharging current

(5) load capacity single phase, three phase

(2) nominal discharging current

(4) voltage protection level



- (1) classified as the structure of surface cover: hanging type, flush type
- (2) classified as the design of surface cover: standard type, deluxe type
- (3) classified as the type of electric net: single phase, three phase four line
- (4) classified as application location: B, C, D typeB- inlet power distribution boards, main automatic switch (or fuse) endC- The distribution boards with connection over 15M of inlet power distribution boards, main automatic switch (or fuse) endD- terminal box, main automatic switch (or fuse) end
- (5) classified as limitation voltage: 1-2kV 2-1kV 3-1kV(6) classified as connection type: parallel connection, series connection (series connection is 2P, 3P)
- (7) classified as accessory: A,B,C
- (8) Please refer to ° the figure of types and specification of lighting protection case± for the detailed classification
- (9) The electric principal of lightning protection case refer to the below figure

Item	Accessory	A	В	C	D	E	F	G	Н	1	J	K
1	Alarm		V		V	V	V	V	V	V		
2	Fuse			1	4		V	V	V	V		
3	Lightning counter ( 1 digit )					1	V					
4	Lightning counter ( 2 digit )							V	1			
	Lightning counter ( 4 digit )									V		
5	Ampere meter, voltage meter								1			

### Application condition

- 1) Application voltage:
- 2) Altitude: less than 2000m
- 3) Ambient temperature:
- 4) Relative humidity:
- 5) Environment condition: indoor, no flammable, explosive, erosive gas.



XDL(Z) Series

# Lightning protection case

### ELECAL



XDL(Z) Series

#### Function and choice:

- 1)The basic function of lightning protection case is to absorb lightning, surging over voltage which can limit the over voltage of electric net within a certain value. So customers should choose different specifications lighting protection case as per the installation location and limitation voltage grade.
- 2)The surge arrestor in the lightning protection case has the function of malfunction indication. The green is normal, the red is in malfunction.
- 3)The fuse in the lightning protection case is to ensure the surge arrestor separate from the electric net when the protector is in malfunction, esp. the rated working current for the main automatic switch of the precious distribution boards is over 100A. Fuse has fusing indication device which is used to indicate whether the protector is in normal condition.
- 4)The alarm is the practical part of the malfunction device, which can indicate the malfunction in voice and light. If the fault can not be cleared immediately, press the stop key to pause the buzzer, but the red indicator is still indicating the fault. If the fault still are not cleared after 24 hours, the buzzer will sound. Customers can choose it as per need. 5)Lightning counter can count the times of lightning discharging. The max. record is 99 times, and it can still keep the data after power off. Customers can choose it as per need

#### Note

- 1) The lightning protection case should have a good and separate earthing system. The earthing resistance should be less than  $10\Omega$ , and can not be replaced by tap water tube, coal gas tube, downcomer etc.
- 2) The earthing line should be over 4mm, the distance between the earthing line from equipotential object should be less than 0.5m.
- 3) When the rated current for the main circuit breaker ( or fuse) of the precious distribution boards should be over 100A, the lightning protection case with inserted fuse should be choosen.