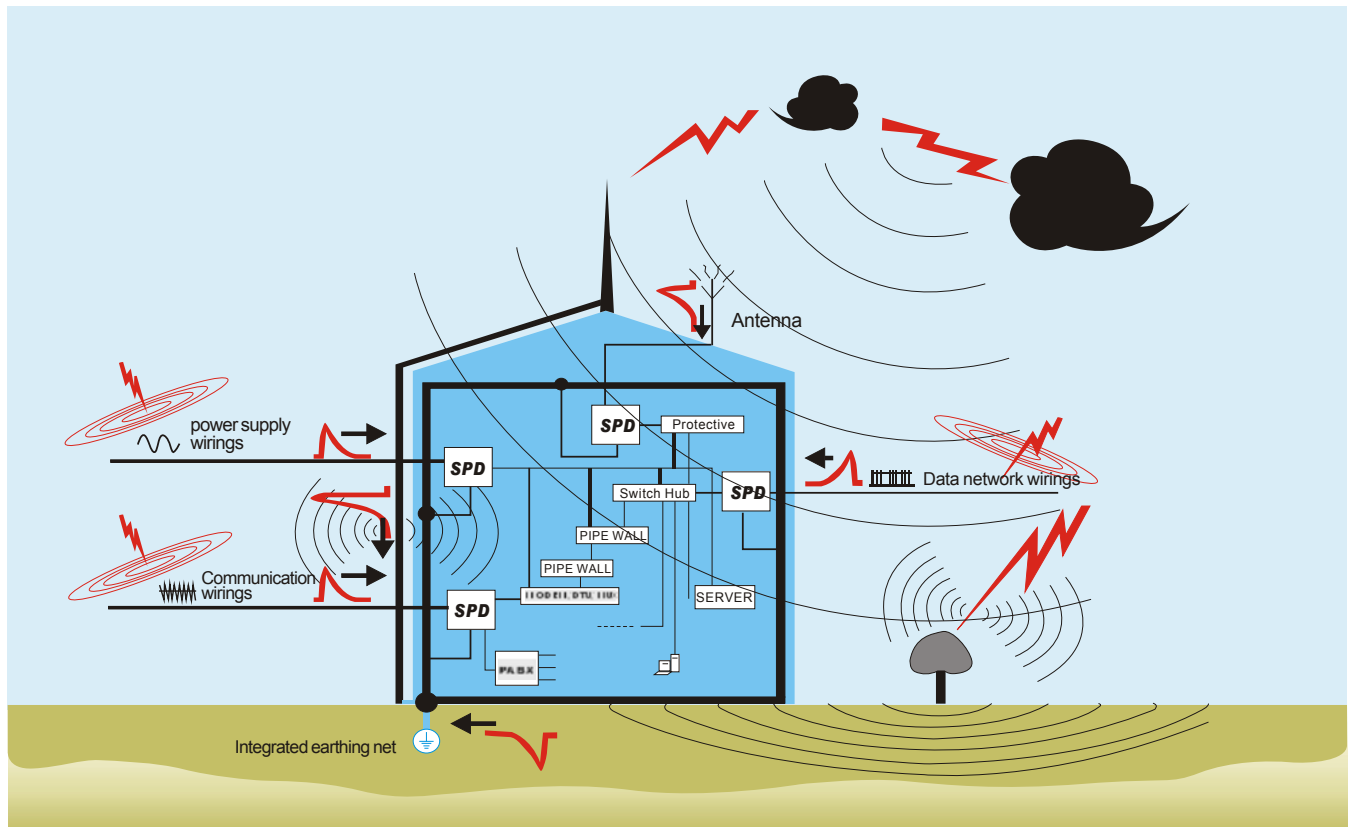


## Introduction

With many years technology promotion and development, more and more integrated device electronics are used, but the ir res istant voltage degree are getting more and more lower. Disaster and destroy caused by lightning strikes are increasing year by year. To against lightning strikes, it is necessary to connect the equipotential bonding as very soon as possible.

## Over voltage ingress ways

lightning is a natural phenomenon, which is formed in thunder-clouds. The discharges between clouds and clouds or clouds and ground cause a strong electromagnetic pulse. In t his surroundings, all metal parts will indu ce over vo ltage, es pecially for various wirings built in suspension. The inductive over voltage can ing res equipments through these cables and make equipments damaged.



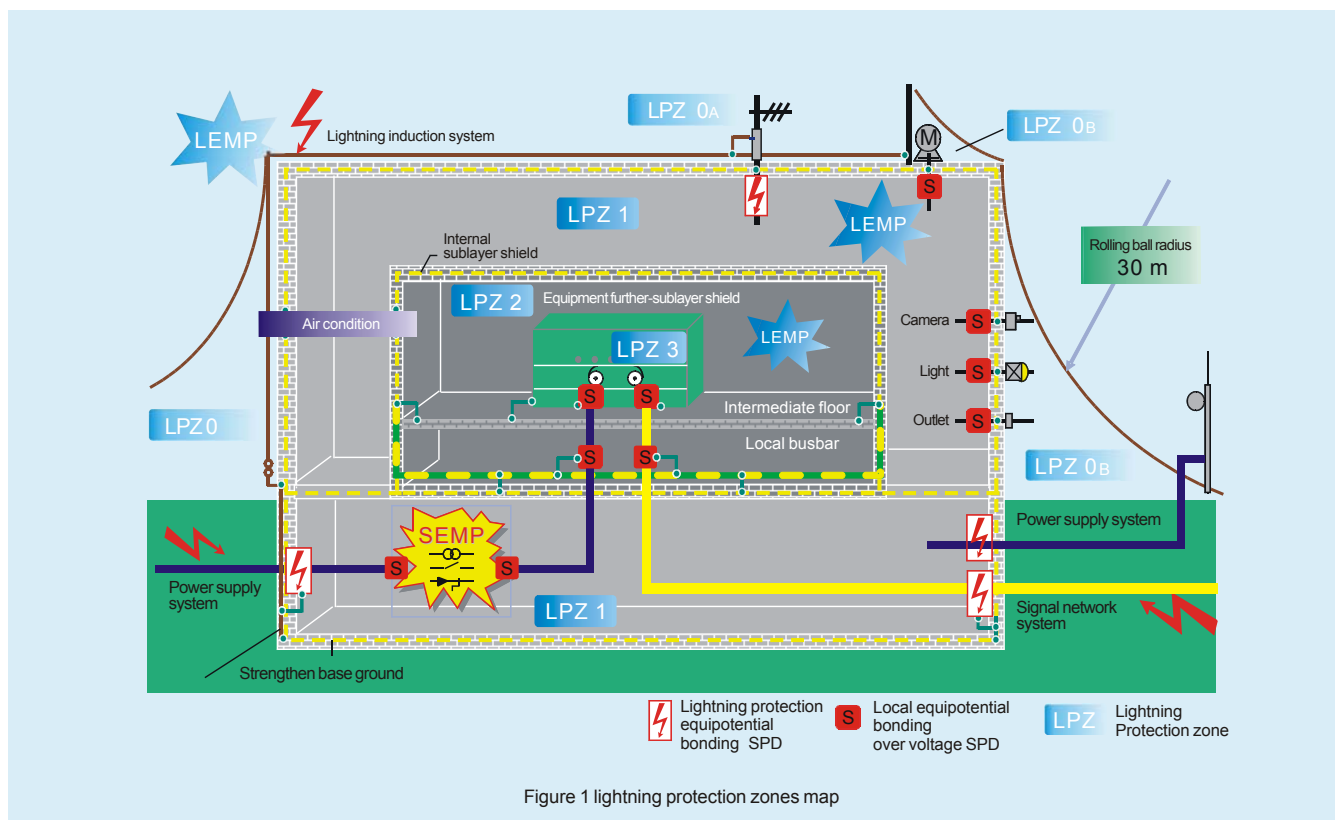
### Concept of lightning protection zones

lightning protection zones division described in international standard IEC 61312-1 is proved as scientific and reasonable. The theory is, before over voltage reach terminal equipments and damage, gradually reduce over voltage up to its harmlessness. For this purpose, whole building surge protection area are divided into several lightning protection zones(LPZs).The surge protective devices are installed at the point between different lightning protection zones, detailed protection class of surge protective devices according to different lightning protection zones requests.

### The lightning protection zones explanation

- LPZ 0 In this protection zone, unbated lightning electromagnetic field will be threat. Internal system might be threatened by all or parts of surge current. LPZ 0 can be separated into:
  - LPZ 0A In this protection zone, directness lightning and the whole lightning electromagnetic field will be threat. Internal system might be t threatened by all or parts of surge current.
  - LPZ 0B In this protection zone, unbated lightning electromagnetic field will be thr eat. Inte rnal system might be threatened by all surge current.
- LPZ 1 In this protection zone, surge current is limited by distribution of previous zone and SPD.
- LPZ 2 n l n this p rotection zone, surge current is furtherly limited by distribution of pr evious zone and SPD. The added space shields will furth erly bate electromagnetic field.

It is very necessary for correct installation equipotential bonding system to use lightning protection zones concept, then as a complement to install surge protective devices at between different zones. So, it is very important to esta blish equ ipotential bonding system for lightning protection.



1



BY18-20/2



BY18-20/2+1

### BY18-20 Series Surge Protective Device

#### Introduction

BY18-20 SPD, applicable to AC220V,50/60Hz power supply system. It is a protective electrical product used to protect electrical systems and equipment from a variety of over-voltage (like lightning or operating over-voltage) and the impact of current damage. The technical performance of the products meets the standard technical requirement of GB18802.1 and IEC61643-1.

- The product has been designed taking into account the need for installation and maintenance, structure adopts to 2+1 function based on the width of 18mm,in order to installation and construction.
- The product has the equipment to out of device failure, adapt to the technology to out from heat. When the failure of the surge protector deterioration of breakdown due to overheating, it will automatically isolate from the power line, reliable and effective to avoid the accident. Display information, when surge protection device is in normal operation, the transparent window is shown in green, it is failed the transparent window shown in red. It should be replace the module block when it is shown in red timely.
- Internal set telesignalling alarm contacts, it can be normally open or normally closed, install a remote alarm contacts, in order to facilitate remote monitoring.
- Charged pluggable, module failure can be replaced

#### Denominated indication

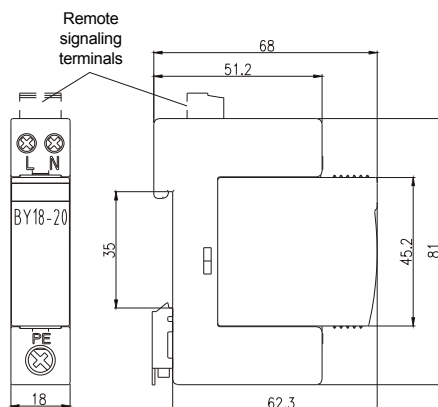
BY 18 - 20 / □ □  
1 2 3 4 5

1. Surge protection device
2. Design number
3. Maximum discharge current (Imax kA)
4. Gas-discharge tube: 2 meaning no gas-discharge tube; 2+1 meaning have gas-discharge tube
5. Accessories Remote signaling contact, X (Often open or closed) When no remote signaling contact not marked

#### Performance parameters

Type	BY18-20
Max continuous operating voltage $U_c(V)$	320V(AC)
Voltage protection level $U_p(KV)$	$\leq 1.5kV$
Nominal discharge current $I_n 8/20 \mu S (kA)$	10kA
Max discharge current $I_{max} 8/20 \mu S (kA)$	20kA
Response time	$\leq 25ns$
Product width	18mm
Case material	V0 flame resistant PA
Protection degree	IP20

#### Dimension



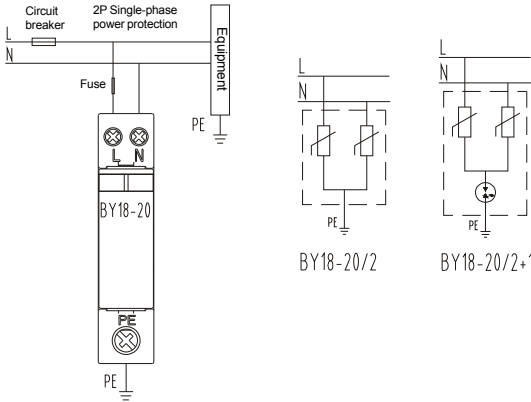
**Products list**

Product type	BY18-20/2	BY18-20/2
Main technical specifications		
Capacity of discharge(I <sub>max</sub> )		

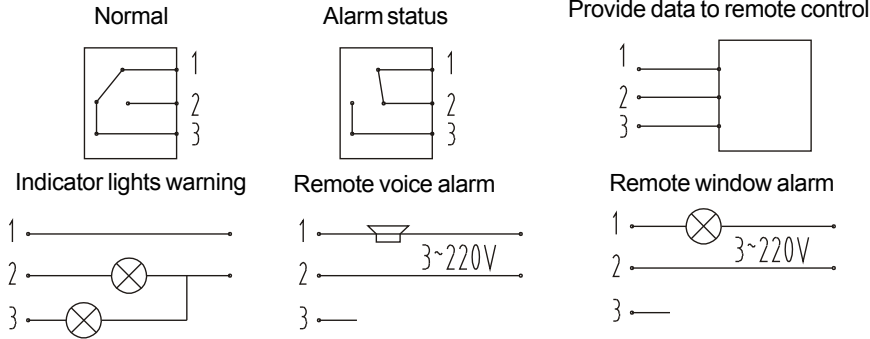


20kA	BY18-20/2-320	BY18-20/2-275
	Code: F0125500030	Code: F0140000030
	U <sub>c</sub> : 320V	U <sub>c</sub> : 275V
	I <sub>n</sub> (8/20 μS): 10kA	I <sub>n</sub> (8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: ≤1.5kV	up: ≤1.2kV

**Circuit diagram**



**Remote signaling device diagram**





BY7-40/2-385



BY7-40/4-385

## BY7 Series Surge Protective Device

### Introduction

BY7 series surge protective device is widely used in the field of energy, photovoltaic, construction, telecommunications, transportation, environmental engineering. It is the power grid cleaner, resistant lightning, release the surge, and it protects the security of a II types of electrical equipment. The series has a large flux, applicable to class C and class D of the low-voltage electrical distribution system. Using different combinations of wiring depend on the power supply system.

1. Using the interrupter structure to ensure the safe operation of the system.
2. High-energy varistor, nanosecond response speed.
3. Overheating overcurrent protection
4. Local indication and remote signal alarm contacts
  - Protector visual display to protect the working state
  - Provide contacts to remote monitoring protection status, need for external line.
  - Charged pluggable, module failure can be replaced

### Denominated indication

BY 7 - □ □ / □ - □ □ - □  
1 2 3 4 5 6 7

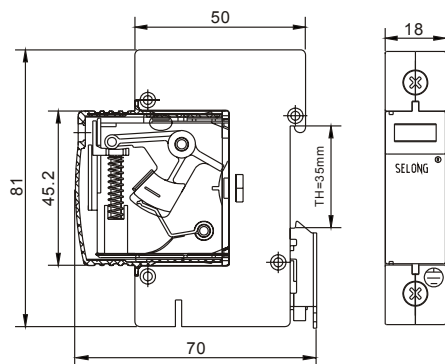
1. Surge protection device
2. Design number
3. Maximum discharge current(8/20 $\mu$ S)(KA)
4. MH interrupter structure
5. Combination mode
6. Maximum continuous operating voltage (V)
7. Accessories: B-sound and light alarm; X-remote signaling contact; T-Integration groupings

### Performance parameters

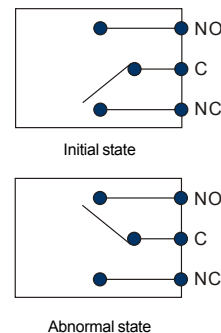
Type	BY7-40 Limiting type	BY7-20 Limiting type
Max.continuous operating voltage Uc (V~)	320	320
Nominal discharge current In 8/20 $\mu$ S(kA)	20	10
Max.discharge current Imax 8/20 $\mu$ S(kA)	40	20
Voltage protection level Up ( kV)	1.8	1.5
Fuse	20	20
Combination mode	1P+NPE, 2P, 3P, 3P+NPE, 4P	
Functional indication	Green window: normal red window: failure	
Remote signaling alarm contacts	one pair normally open, closed contacts	
Sound and light alarm	Optional	
Connection capability	4~35mm <sup>2</sup>	
Dimensions	See drawing	
Case material	Accord with UL94V-0	
Protection degree	IP20	
Installation method	35mm DIN rail	

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

### Interrupter structure diagram



### Remote signaling device diagram



### Products list

Product type	BY7-□□□□-420	BY7-□□□□-385	BY7-□□□□-320	BY7-□□□□-275
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system single phase power supply			
Capacity of discharge(I <sub>max</sub> )				

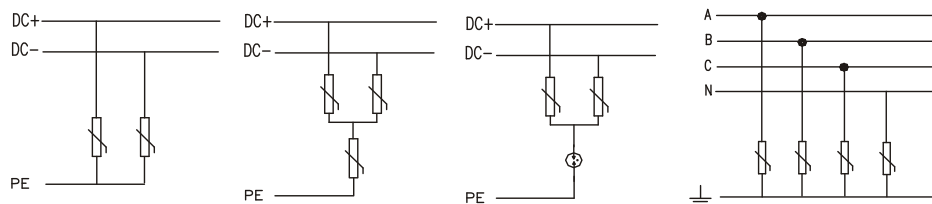


20kA	BY7-20/2-420	BY7-20/2-385	BY7-20/2-320	BY7-20/2-275
	Code: B0727520100	Code: B0732020100	Code: B0738520100	Code: B0744020100
	U <sub>c</sub> : 420V	U <sub>c</sub> : 385V	U <sub>c</sub> : 320V	U <sub>c</sub> : 275V
	I <sub>n</sub> (8/20 μS): 10kA	I <sub>n</sub> (8/20 μS): 10kA	I <sub>n</sub> (8/20 μS): 10kA	I <sub>n</sub> (8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: 2.0kV	up: 1.8kV	up: 1.5kV	up: 1.2kV



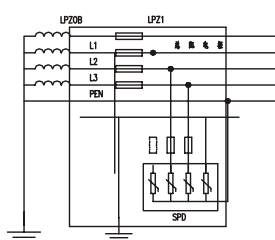
40kA	BY7-40/4-420	BY7-40/4-385	BY7-40/4-320	BY7-40/4-275
	Code: B0727520080	Code: B0732020080	Code: B0738520080	Code: B0744020080
	U <sub>c</sub> : 420V	U <sub>c</sub> : 385V	U <sub>c</sub> : 320V	U <sub>c</sub> : 275V
	I <sub>n</sub> (8/20 μS): 20kA	I <sub>n</sub> (8/20 μS): 20kA	I <sub>n</sub> (8/20 μS): 20kA	I <sub>n</sub> (8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 2.0kV	up: 1.8kV	up: 1.5kV	up: 1.2kV

### Circuit diagram

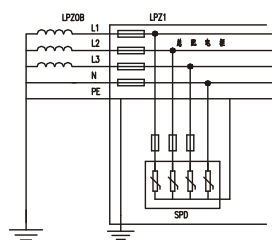


Solar network diagram

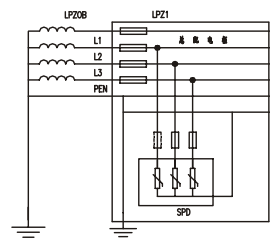
380V network diagram



TT system



TN-S system



TN-C-S system



BY7-100



BY7-100

## BY7 Series Surge Protective Device

### Introduction

BY7 series surge protective device is widely used in the field of energy, photovoltaic, construction, telecommunications, transportation, environmental engineering. It is the power grid cleaner, resistant lightning, release the surge, and it protects the security of all types of electrical equipment. The series has a large flux, the maximum discharge current of unipolar module is 60~100KA, applicable to class B of the low-voltage electrical distribution system. Using different combinations of wiring depend on the power supply system.

1. Using the interrupter structure to ensure the safe operation of the system.
2. High-energy varistor, nanosecond response speed.
3. Overheating overcurrent protection
4. Local indication and remote signal alarm contacts Protector visual display to protect the working state provide contacts to remote monitoring protection status, need for external line.
5. Standard 35mm rail mounting.

### Denominated indication

BY 7 - □ □ / □ - □ □ - □  
1 2 3 4 5 6 7

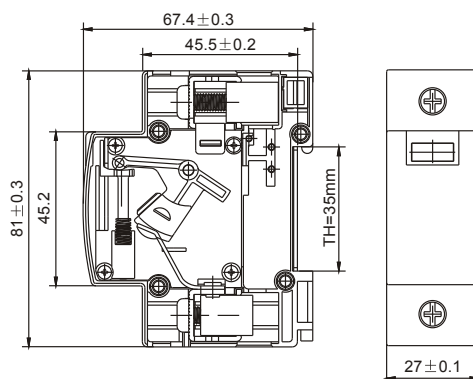
1. Surge protection device
2. Design number
3. Maximum discharge current(8/20μS)(KA)
4. MH interrupter structure
5. Combination mode
6. Maximum continuous operating voltage (V)
7. Accessories: B-sound and light alarm; X-remote signaling contact; T-Integration groupings

### Performance parameters

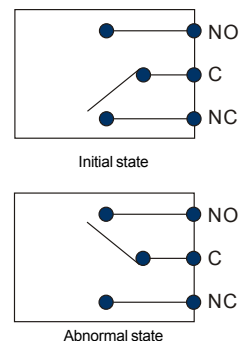
Type	BY7-60 Limiting type	BY7-80 Limiting type	BY7-100 Limiting type
Max.continuous operating voltage Uc (V~)	385	385	385
Nominal discharge current In 8/20 μS (kA)	30	40	60
Max.discharge current Imax 8/20 μS (kA)	60	80	100
Voltage protection level Up (kV)	2.0	2.5	3.0
Fuse	63	100	125
Combination mode	1P+NPE, 2P, 3P, 3P+NPE, 4P		
Functional indication	Green window: normal red window: failure		
Remote signaling alarm contacts	one pair normally open, closed contacts		
Sound and light alarm	Optional		
Connection capability	4~35mm <sup>2</sup>		
Dimensions	See drawing		
Case material	Accord with UL94V-0		
Protection degree	IP20		
Installation method	35mm DIN rail		

Attention: max continuous operating voltage is optional 275V, 320V ,385V, 420V, 485V, 550V, 690V.

### Interrupter structure diagram



### Remote signaling device diagram





### Products list

Product type	BY7-□□/□-□	BY7-□□/□-□	BY7-□□/□-□	BY7-□□/□-□
Main technical specifications	Suitable for: TT system three phase power supply			
Capacity of discharge(I <sub>max</sub> )				



60kA	BY7-60/2-440	BY7-60/2-420	BY7-60/2-385	BY7-60/2-320
	Code: B0727531010	Code: B0732031010	Code: B0738531010	Code: B0744031010
	U <sub>c</sub> : 440V	U <sub>c</sub> : 420V	U <sub>c</sub> : 385V	U <sub>c</sub> : 320V
	I <sub>n</sub> (8/20 μS): 30kA	I <sub>n</sub> (8/20 μS): 30kA	I <sub>n</sub> (8/20 μS): 30kA	I <sub>n</sub> (8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 2.5kV	up: 2.0kV	up: 2.0kV	up: 2.0kV

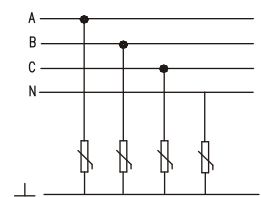
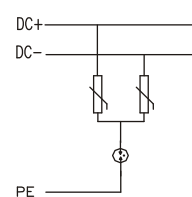
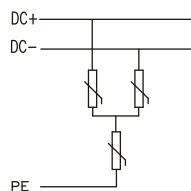
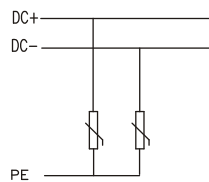


80kA	BY7-80/2-420	BY7-80/2-385	BY7-80/2-320	BY7-80/2-275
	Code: B072753102T	Code: B073203102T	Code: B073853102T	Code: B074403102T
	U <sub>c</sub> : 420V	U <sub>c</sub> : 385V	U <sub>c</sub> : 320V	U <sub>c</sub> : 275V
	I <sub>n</sub> (8/20 μS): 40kA	I <sub>n</sub> (8/20 μS): 40kA	I <sub>n</sub> (8/20 μS): 40kA	I <sub>n</sub> (8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.5kV	up: 2.5kV	up: 2.0kV	up: 2.0kV



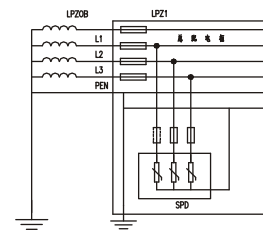
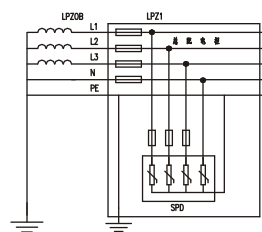
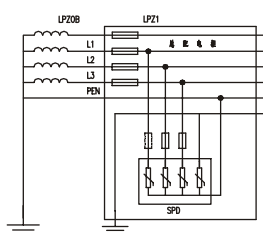
100kA	BY7-100/2-420	BY7-100/2-385	BY7-100/2-320	BY7-100/2-275
	Code: B0727531040	Code: B0732031040	Code: B0738531040	Code: B0744031040
	U <sub>c</sub> : 420V	U <sub>c</sub> : 385V	U <sub>c</sub> : 320V	U <sub>c</sub> : 275V
	I <sub>n</sub> (8/20 μS): 60kA	I <sub>n</sub> (8/20 μS): 60kA	I <sub>n</sub> (8/20 μS): 60kA	I <sub>n</sub> (8/20 μS): 60kA
	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA
	up: 3.0kV	up: 3.0kV	up: 2.5kV	up: 2.0kV

### Circuit diagram



Solar network diagram

380V network diagram



TT system

TN-S system

TN-C-S system

1



BY7-10/2-275



BY7-60/2-440T

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for 220V-240V single phase AC power protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>
  - 1)A visual display on the protector about its operation;
  - 2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
  - 3)Convenient to be pulled or inserted, possible to remove failed module.
- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □ □  
1 2 3 4 5 6 7

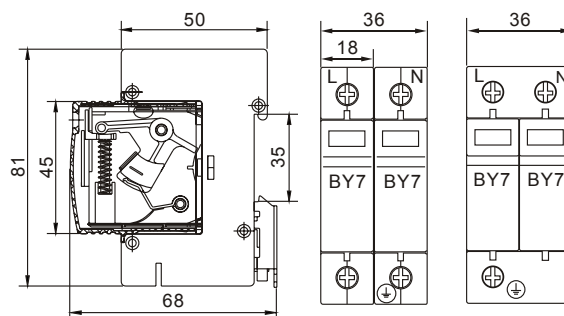
1. Surge protection device
2. Design number
3. Max. discharge current  $I_{max}(kA)$
4. Combination mode
5. Max. continuous operating voltage  $U_c(V)$
6. T: base unit integrated
7. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

Type	BY7-10/2	BY7-20/2	BY7-40/2	BY7-60/2
Max.continuous operating voltage $U_c(V\sim)$	275V	320V	385V	440V
Nominal discharge current $I_n 8/20 \mu S(kA)$	5kA	10kA	20kA	30kA
Max.discharge current $I_{max} 8/20 \mu S(kA)$	10kA	20kA	40kA	60kA
Voltage protection level $U_p(kV)$	$\leq 0.8kV$	$\leq 1.0kV$	$\leq 1.2kV$	$\leq 1.5kV$
Fuse	10A	20A	32A	63A
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	$< 25ns$			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

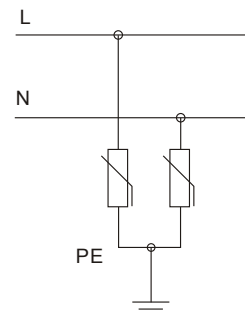
Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



Base unit integrated product

#### Remote signaling device diagram



### Products list

Product type	BY7-□□/2-275	BY7-□□/2-320	BY7-□□/2-385	BY7-□□/2-440
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system single phase power supply			
Capacity of discharge(I <sub>max</sub> )				



10kA	BY7-10/2-275	BY7-10/2-320	BY7-10/2-385	BY7-10/2-440
	Code: B0727520010	Code: B0732020010	Code: B0738520010	Code: B0744020010
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA
	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA
	up: 0.8kV	up: 1.0kV	up: 1.2kV	up: 1.5kV



20kA	BY7-20/2-275T	BY7-20/2-320T	BY7-20/2-385T	BY7-20/2-440T
	Code: B072752002T	Code: B073202002T	Code: B073852002T	Code: B074402002T
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: 1.0kV	up: 1.2kV	up: 1.5kV	up: 1.8kV



40kA	BY7-40/2-275	BY7-40/2-320	BY7-40/2-385	BY7-40/2-440
	Code: B0727520040	Code: B0732020040	Code: B0738520040	Code: B0744020040
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.2kV	up: 1.5kV	up: 1.8kV	up: 2.0kV



60kA	BY7-60/2-275T	BY7-60/2-320T	BY7-60/2-385T	BY7-60/2-440T
	Code: B072752006T	Code: B073202006T	Code: B073852006T	Code: B074402006T
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 1.5kV	up: 1.8kV	up: 2.0kV	up: 2.2kV



BY7-10/3-320



BY7-20/3-440

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for TN-C TN-C-S and IT three phase AC power protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>
  - 1)A visual display on the protector about its operation;
  - 2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
  - 3)Convenient to be pulled or inserted, possible to remove failed module.
- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

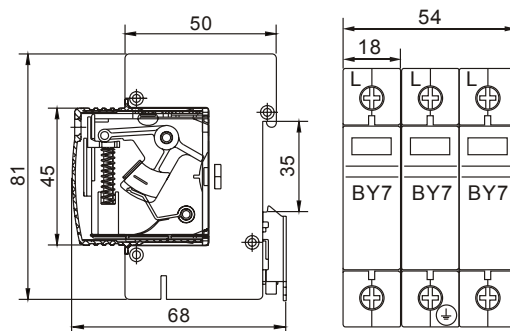
1. Surge protection device
2. Design No.
3. Max. discharge current I<sub>max</sub>(kA)
4. Combination mode
5. Max. continuous operating voltage U<sub>c</sub>(V)
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

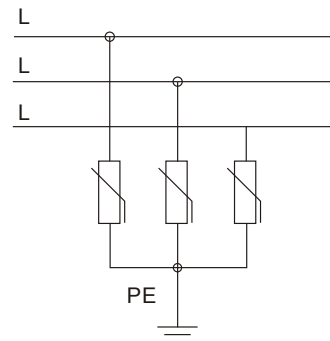
Type	BY7-10/3	BY7-20/3	BY7-40/3	BY7-60/3
Max.continuous operating voltage U <sub>c</sub> (V~)	275V	320V	385V	440V
Nominal discharge current I <sub>n</sub> 8/20 μS (kA)	5kA	10kA	20kA	30kA
Max.discharge current I <sub>max</sub> 8/20 μS (kA)	10kA	20kA	40kA	60kA
Voltage protection level U <sub>p</sub> ( kV)	≤0.8kV	≤1.0kV	≤1.2kV	≤1.5kV
Fuse	10A	20A	32A	63A
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



#### Remote signaling device diagram



### Products list

Product type	BY7-□□□/3-275	BY7-□□□/3-320	BY7-□□□/3-385	BY7-□□□/3-440
Main technical specifications	Suitable for: TN-S, TN-C-S, IT system three phase power supply			
Capacity of discharge(I <sub>max</sub> )				



10kA	BY7-10/3-275	BY7-10/3-320	BY7-10/3-385	BY7-10/3-440
	Code: B0727530010	Code: B0732030010	Code: B0738530010	Code: B0744030010
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA
	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA
	up: 0.8kV	up: 1.0kV	up: 1.2kV	up: 1.5kV



20kA	BY7-20/3-275	BY7-20/3-320	BY7-20/3-385	BY7-20/3-440
	Code: B0727530020	Code: B0732030020	Code: B0738530020	Code: B0744030020
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: 1.0kV	up: 1.2kV	up: 1.5kV	up: 1.8kV



40kA	BY7-40/3-275	BY7-40/3-320	BY7-40/3-385	BY7-40/3-440
	Code: B0727530040	Code: B0732030040	Code: B0738530040	Code: B0744030040
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.2kV	up: 1.5kV	up: 1.8kV	up: 2.0kV



60kA	BY7-60/3-275	BY7-60/3-320	BY7-60/3-385	BY7-60/3-440
	Code: B0727530060	Code: B0732030060	Code: B0738530060	Code: B0744030060
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 1.5kV	up: 1.8kV	up: 2.0kV	up: 2.2kV

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BY7-10/4-385



BY7-20/4-385T

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for TN-S TN-C-S TT and IT three phase AC power protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection

- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>

1)A visual display on the protector about its operation;

2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;

3)Convenient to be pulled or inserted, possible to remove failed module.

- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □ □  
1 2 3 4 5 6 7

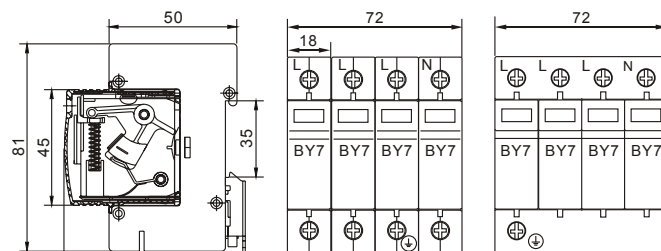
1. Surge protection device
2. Design No.
3. Max. discharge current I<sub>max</sub>(kA)
4. Combination mode
5. Max. continuous operating voltage U<sub>c</sub>(V)
6. T: base unit integrated
7. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

Type	BY7-10/4	BY7-20/4	BY7-40/4	BY7-60/4
Max.continuous operating voltage U <sub>c</sub> (V~)	275V	320V	385V	440V
Nominal discharge current I <sub>n</sub> 8/20 μS (kA)	5kA	10kA	20kA	30kA
Max.discharge current I <sub>max</sub> 8/20 μS (kA)	10kA	20kA	40kA	60kA
Voltage protection level U <sub>p</sub> ( kV)	≤0.8kV	≤1.0kV	≤1.2kV	≤1.5kV
Fuse	10A	20A	32A	63A
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

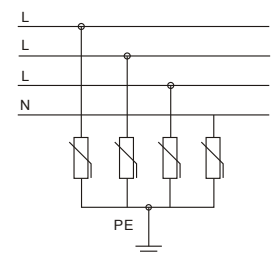
Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



Base unit integrated product

#### Circuit diagram



### Products list

Product type	BY7-□□□/4-275	BY7-□□□/4-320	BY7-□□□/4-385	BY7-□□□/4-440
Main technical specifications	Suitable for: TN-S, TN-C-S, IT system three phase power supply			
Capacity of discharge(I <sub>max</sub> )				



10kA	BY7-10/4-275	BY7-10/4-320	BY7-10/4-385	BY7-10/4-440
	Code: B0727540010	Code: B0732040010	Code: B0738540010	Code: B0744040010
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA
	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA
	up: 0.8kV	up: 1.0kV	up: 1.2kV	up: 1.5kV



20kA	BY7-20/4-275T	BY7-20/4-320T	BY7-20/4-385T	BY7-20/4-440T
	Code: B072754002T	Code: B073204002T	Code: B073854002T	Code: B074404002T
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: 1.0kV	up: 1.2kV	up: 1.5kV	up: 1.8kV



40kA	BY7-40/4-275	BY7-40/4-320	BY7-40/4-385	BY7-40/4-440
	Code: B0727540040	Code: B0732040040	Code: B0738540040	Code: B0744040040
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.2kV	up: 1.5kV	up: 1.8kV	up: 2.0kV



60kA	BY7-60/4-275T	BY7-60/4-320T	BY7-60/4-385T	BY7-60/4-440T
	Code: B072754006T	Code: B073204006T	Code: B073854006T	Code: B074404006T
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 1.5kV	up: 1.8kV	up: 2.0kV	up: 2.2kV



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BY7-10/2+1-440



BY7-60/2+1-385

## BY7 Series Surge Protective Device

### Introduction

The product have a good discharge capacity, it is suitable for 220V-240V single phase AC power protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>
  - 1) A visual display on the protector about its operation;
  - 2) A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
  - 3) Convenient to be pulled or inserted, possible to remove failed module.
- DIN rail 35mm installation

### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

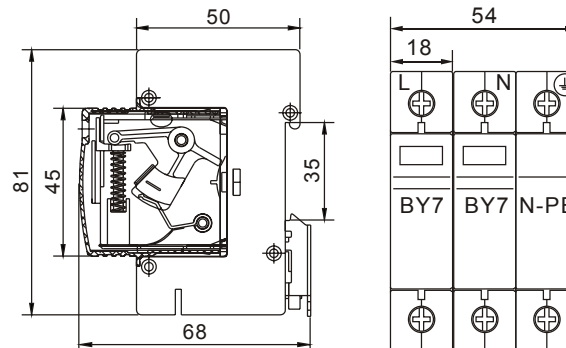
1. Surge protection device
2. Design No.
3. Max. discharge current  $I_{max}(kA)$
4. Combination mode
5. Max. continuous operating voltage  $U_c(V)$
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

### Performance parameters

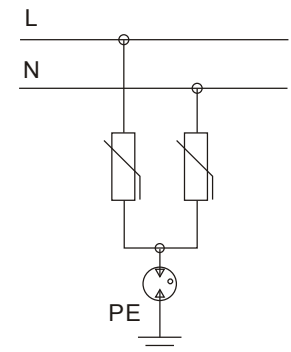
Type	BY7-10/2+1	BY7-20/2+1	BY7-40/2+1	BY7-60/2+1
Max.continuous operating voltage $U_c(V\sim)$	275V	320V	385V	440V
Nominal discharge current $I_n 8/20 \mu S(kA)$	5kA	10kA	20kA	30kA
Max.discharge current $I_{max} 8/20 \mu S(kA)$	10kA	20kA	40kA	60kA
Voltage protection level $U_p(kV)$	$\leq 0.8kV$	$\leq 1.0kV$	$\leq 1.2kV$	$\leq 1.5kV$
Fuse	10A	20A	32A	63A
Functional indication	Green window: functional; Red window: failed			
Response time(ns)	$< 25ns$			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

### Interrupter structure diagram



### Circuit diagram





### Products list

Product type	BY7-□□□/2+1-275	BY7-□□□/2+1-320	BY7-□□□/2+1-385	BY7-□□□/2+1-440
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system single phase power supply			
Capacity of discharge(I <sub>max</sub> )				



10kA	BY7-10/2+1-275	BY7-10/2+1-320	BY7-10/2+1-385	BY7-10/2+1-440
	Code: B0727521010	Code: B0732021010	Code: B0738521010	Code: B0744021010
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA
	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA
	up: 0.8kV	up: 1.0kV	up: 1.2kV	up: 1.5kV



20kA	BY7-20/2+1-275	BY7-20/2+1-320	BY7-20/2+1-385	BY7-20/2+1-440
	Code: B0727521020	Code: B0732021020	Code: B0738521020	Code: B0744021020
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: 1.0kV	up: 1.2kV	up: 1.5kV	up: 1.8kV



40kA	BY7-40/2+1-275	BY7-40/2+1-320	BY7-40/2+1-385	BY7-40/2+1-440
	Code: B0727521040	Code: B0732021040	Code: B0738521040	Code: B0744021040
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.2kV	up: 1.5kV	up: 1.8kV	up: 2.0kV



60kA	BY7-60/2+1-275	BY7-60/2+1-320	BY7-60/2+1-385	BY7-60/2+1-440
	Code: B0727521060	Code: B0732021060	Code: B0738521060	Code: B0744021060
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 1.5kV	up: 1.8kV	up: 2.0kV	up: 2.2kV

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BY7-10/3+1-320



BY7-20/3+1-320T

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for TT three phase AC power protection of low voltage distribution system.

■ Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.

■ Capacity of overheated and surge protection

■ Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>

1) A visual display on the protector about its operation;

2) A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;

3) Convenient to be pulled or inserted, possible to remove failed module.

■ DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □ □  
1 2 3 4 5 6 7

1. Surge protection device

2. Design No.

3. Max. discharge current I<sub>max</sub>(kA)

4. Combination mode

5. Max. continuous operating voltage U<sub>c</sub>(V)

6. T: base unit integrated

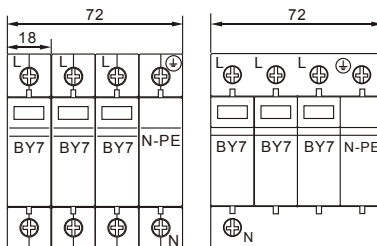
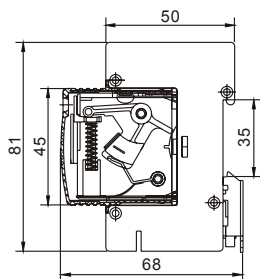
7. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

Type	BY7-10/3+1	BY7-20/3+1	BY7-40/3+1	BY7-60/3+1
Max.continuous operating voltage U <sub>c</sub> (V~)	275V	320V	385V	440V
Nominal discharge current I <sub>n</sub> 8/20 μs (kA)	5kA	10kA	20kA	30kA
Max.discharge current I <sub>max</sub> 8/20 μs (kA)	10kA	20kA	40kA	60kA
Voltage protection level U <sub>p</sub> (kV)	≤0.8kV	≤1.0kV	≤1.2kV	≤1.5kV
Fuse	10A	20A	32A	63A
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

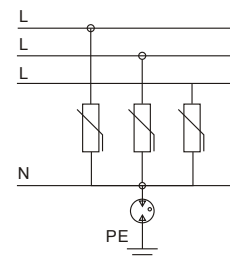
Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



Base unit integrated product

#### Circuit diagram



### Products list

Product type	BY7-□□□/3+1-275	BY7-□□□/3+1-320	BY7-□□□/3+1-385	BY7-□□□/3+1-440
Main technical specifications	Suitable for: TT system three phase power supply			
Capacity of discharge(I <sub>max</sub> )				



10kA	BY7-10/3+1-275	BY7-10/3+1-320	BY7-10/3+1-385	BY7-10/3+1-440
	Code: B0727531010	Code: B0732031010	Code: B0738531010	Code: B0744031010
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA
	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA	I <sub>max</sub> (8/20 μS): 10kA
	up: 0.8kV	up: 1.0kV	up: 1.2kV	up: 1.5kV



20kA	BY7-20/3+1-275T	BY7-20/3+1-320T	BY7-20/3+1-385T	BY7-20/3+1-440T
	Code: B072753102T	Code: B073203102T	Code: B073853102T	Code: B074403102T
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA	I <sub>max</sub> (8/20 μS): 20kA
	up: 1.0kV	up: 1.2kV	up: 1.5kV	up: 1.8kV



40kA	BY7-40/3+1-275	BY7-40/3+1-320	BY7-40/3+1-385	BY7-40/3+1-440
	Code: B0727531040	Code: B0732031040	Code: B0738531040	Code: B0744031040
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.2kV	up: 1.5kV	up: 1.8kV	up: 2.0kV



60kA	BY7-60/3+1-275T	BY7-60/3+1-320T	BY7-60/3+1-385T	BY7-60/3+1-440T
	Code: B072753106T	Code: B073203106T	Code: B073853106T	Code: B074403106T
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 1.5kV	up: 1.8kV	up: 2.0kV	up: 2.2kV

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BY7-80/2-320



BY7-100/2-385

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for single phase power supply B(I) class protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>

- 1)A visual display on the protector about its operation;
- 2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
- 3)Convenient to be pulled or inserted, possible to remove failed module.

- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

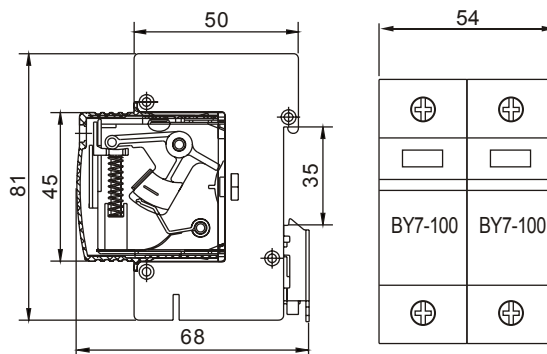
1. Surge protection device
2. Design No.
3. Max. discharge current I<sub>max</sub>(kA)
4. Combination mode
5. Max. continuous operating voltage U<sub>c</sub>(V)
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

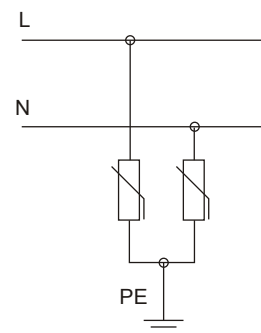
Type	BY7-80/2		BY7-100/2	
Max.continuous operating voltage Uc (V~)	275V	320V	385V	440V
Nominal discharge current In 8/20 μS (kA)	40kA		60kA	
Max.discharge current Imax 8/20 μS (kA)	80kA		100kA	
Voltage protection level Up ( kV)	≤2.0kV	≤2.5kV	≤3.0kV	≤3.5kV
Fuse	100A		125A	
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



#### Circuit diagram



**Products list**

Product type	BY7-□□□/2-275	BY7-□□□/2-320	BY7-□□□/2-385	BY7-□□□/2-440
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system single phase power supply			
Capacity of discharge(I <sub>max</sub> )				



80kA	BY7-80/2-275	BY7-80/2-320	BY7-80/2-385	BY7-80/2-440
	Code: B0727520080	Code: B0732020080	Code: B0738520080	Code: B0744020080
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μs): 40kA	In(8/20 μs): 40kA	In(8/20 μs): 40kA	In(8/20 μs): 40kA
	I <sub>max</sub> (8/20 μs): 80kA	I <sub>max</sub> (8/20 μs): 80kA	I <sub>max</sub> (8/20 μs): 80kA	I <sub>max</sub> (8/20 μs): 80kA
	up: 2.0kV	up: 2.2kV	up: 2.5kV	up: 3.0kV



100kA	BY7-100/2-275	BY7-100/2-320	BY7-100/2-385	BY7-100/2-440
	Code: B0727520100	Code: B0732020100	Code: B0738520100	Code: B0744020100
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μs): 60kA	In(8/20 μs): 60kA	In(8/20 μs): 60kA	In(8/20 μs): 60kA
	I <sub>max</sub> (8/20 μs): 100kA	I <sub>max</sub> (8/20 μs): 100kA	I <sub>max</sub> (8/20 μs): 100kA	I <sub>max</sub> (8/20 μs): 100kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.5kV

1



BY7-80/3-320



BY7-100/3-275

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for single phase power supply B(I) class protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection

- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>

1)A visual display on the protector about its operation;

2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;

3)Convenient to be pulled or inserted, possible to remove failed module.

- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

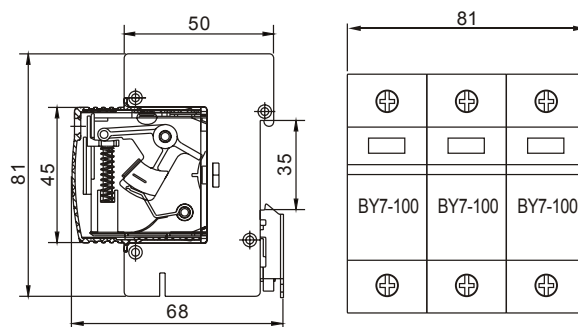
1. Surge protection device
2. Design No.
3. Max. discharge current  $I_{max}(kA)$
4. Combination mode
5. Max. continuous operating voltage  $U_c(V)$
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

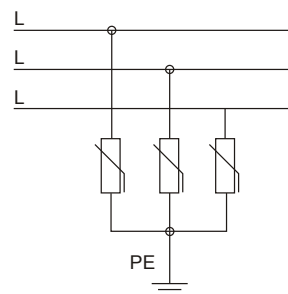
Type	BY7-80/3		BY7-100/3	
Max.continuous operating voltage Uc (V~)	275V	320V	385V	440V
Nominal discharge current In 8/20 μS (kA)	40kA		60kA	
Max.discharge current Imax 8/20 μS (kA)	80kA		100kA	
Voltage protection level Up ( kV)	≤2.0kV	≤2.5kV	≤3.0kV	≤3.5kV
Fuse	100A		125A	
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



#### Circuit diagram



**Products list**

Product type	BY7-□□□/3-275	BY7-□□□/3-320	BY7-□□□/3-385	BY7-□□□/3-440
Main technical specifications	Suitable for: TN-S, TN-C-S system three phase power supply			
Capacity of discharge(I <sub>max</sub> )				



80kA	BY7-80/3-275	BY7-80/3-320	BY7-80/3-385	BY7-80/3-440
	Code: B0727530080	Code: B0732030080	Code: B0738530080	Code: B0744030080
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.0kV	up: 2.2kV	up: 2.5kV	up: 3.0kV



100kA	BY7-100/3-275	BY7-100/3-320	BY7-100/3-385	BY7-100/3-440
	Code: B0727530100	Code: B0732030100	Code: B0738530100	Code: B0744030100
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA
	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.5kV

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BY7-80/4-320

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for single phase power supply B(I) class protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection

- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>

- 1)A visual display on the protector about its operation;
- 2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
- 3)Convenient to be pulled or inserted, possible to remove failed module.

- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □ □  
1 2 3 4 5 6

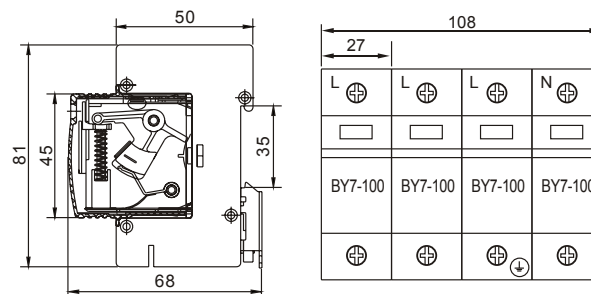
1. Surge protection device
2. Design No.
3. Max. discharge current  $I_{max}(kA)$
4. Combination mode
5. Max. continuous operating voltage  $U_c(V)$
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

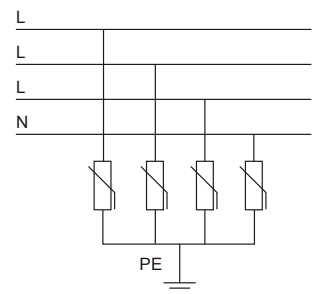
Type	BY7-80/4		BY7-100/4	
Max.continuous operating voltage $U_c$ (V~)	275V	320V	385V	440V
Nominal discharge current $I_n$ 8/20 $\mu$ S (kA)	40kA		60kA	
Max.discharge current $I_{max}$ 8/20 $\mu$ S (kA)	80kA		100kA	
Voltage protection level $U_p$ ( kV)	$\leq 2.0kV$	$\leq 2.5kV$	$\leq 3.0kV$	$\leq 3.5kV$
Fuse	100A		125A	
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



#### Circuit diagram





Products list

Product type	BY7-□□□/4-275	BY7-□□□/4-320	BY7-□□□/4-385	BY7-□□□/4-440
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system three phase power supply			
Capacity of discharge(I <sub>max</sub> )				



80kA	BY7-80/4-275	BY7-80/4-320	BY7-80/4-385	BY7-80/4-440
	Code: B0727540080	Code: B0732040080	Code: B0738540080	Code: B0744040080
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.0kV	up: 2.2kV	up: 2.5kV	up: 3.0kV



100kA	BY7-100/4-275	BY7-100/4-320	BY7-100/4-385	BY7-100/4-440
	Code: B0727540100	Code: B0732040100	Code: B0738540100	Code: B0744040100
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA
	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.5kV

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BY7-80/2+1-385



BY7-100/2+1-385

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for single phase power supply B(I) class protection of low voltage distribution system.

■ Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.

■ Capacity of overheated and surge protection

■ Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>

1) A visual display on the protector about its operation;

2) A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;

3) Convenient to be pulled or inserted, possible to remove failed module.

■ DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

1. Surge protection device

2. Design No.

3. Max. discharge current I<sub>max</sub>(kA)

4. Combination mode

5. Max. continuous operating voltage U<sub>c</sub>(V)

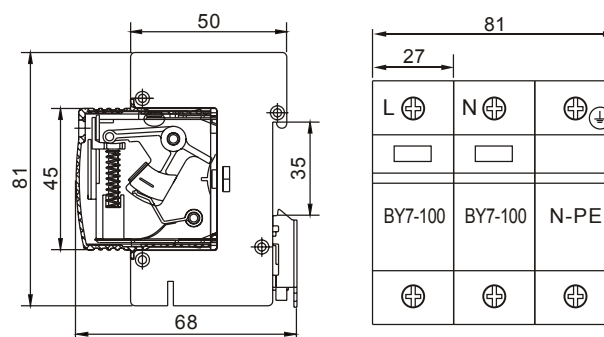
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

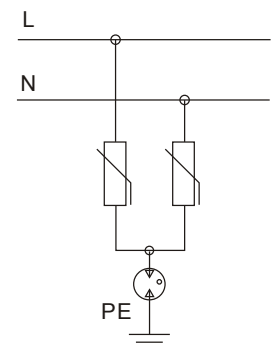
Type	BY7-80/2+1		BY7-100/2+1	
Max.continuous operating voltage Uc (V~)	275V	320V	385V	440V
Nominal discharge current In 8/20 μS (kA)	40kA		60kA	
Max.discharge current Imax 8/20 μS (kA)	80kA		100kA	
Voltage protection level Up ( kV)	≤2.0kV	≤2.5kV	≤3.0kV	≤3.5kV
Fuse	100A		125A	
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



#### Circuit diagram



**Products list**

Product type	BY7-□□□/2+1-275	BY7-□□□/2+1-320	BY7-□□□/2+1-385	BY7-□□□/2+1-440
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system single phase power supply			
Capacity of discharge(I <sub>max</sub> )				



80kA	BY7-80/2+1-275	BY7-80/2+1-320	BY7-80/2+1-385	BY7-80/2+1-440
	Code: B0727521080	Code: B0732021080	Code: B0738521080	Code: B0744021080
	U <sub>c</sub> : 275V	U <sub>c</sub> : 320V	U <sub>c</sub> : 385V	U <sub>c</sub> : 440V
	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.0kV	up: 2.2kV	up: 2.5kV	up: 3.0kV



100kA	BY7-100/2+1-275	BY7-100/2+1-320	BY7-100/2+1-385	BY7-100/2+1-440
	Code: B0727521100	Code: B0732021100	Code: B0738521100	Code: B0744021100
	U <sub>c</sub> : 275V	U <sub>c</sub> : 320V	U <sub>c</sub> : 385V	U <sub>c</sub> : 440V
	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA
	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.5kV

1



BY7-100/3+1-385

### BY7 Series Surge Protective Device

#### Introduction

The product have a good discharge capacity, it is suitable for single phase power supply B(I) class protection of low voltage distribution system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>
  - 1) A visual display on the protector about its operation;
  - 2) A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
  - 3) Convenient to be pulled or inserted, possible to remove failed module.
- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □ □  
1 2 3 4 5 6

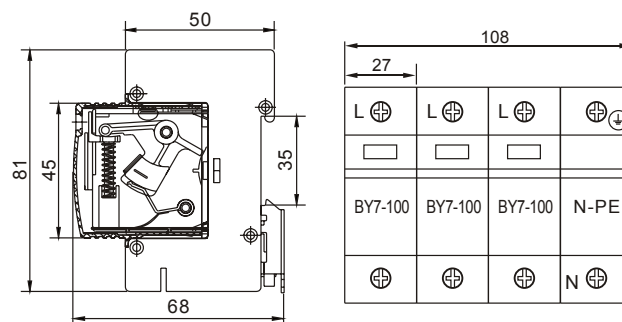
1. Surge protection device
2. Design No.
3. Max. discharge current  $I_{max}(kA)$
4. Combination mode
5. Max. continuous operating voltage  $U_c(V)$
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

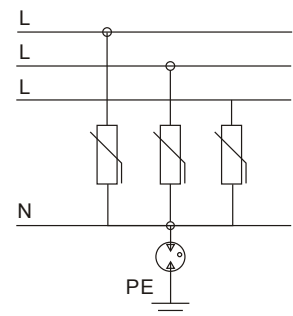
Type	BY7-80/3+1		BY7-100/3+1	
Max.continuous operating voltage Uc (V~)	275V	320V	385V	440V
Nominal discharge current In 8/20 μS (kA)	40kA		60kA	
Max.discharge current Imax 8/20 μS (kA)	80kA		100kA	
Voltage protection level Up ( kV)	≤2.0kV	≤2.5kV	≤3.0kV	≤3.5kV
Fuse	100A		125A	
Functional indication	Green window: functional; Red window:failed			
Response time(ns)	<25ns			
Protection class IP	IP20			
House material	PA6			
Fire resistance	Comply with UL94V-0			
Inspection standard	IEC61643-1:1998			
Installation method	35mm DIN rail			

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



#### Circuit diagram



**Products list**

Product type	BY7-□□□/3+1-275	BY7-□□□/3+1-320	BY7-□□□/3+1-385	BY7-□□□/3+1-440
Main technical specifications	Suitable for: TN-S, TN-C-S, TT, IT system single phase power supply			
Capacity of discharge(I <sub>max</sub> )				



80kA	BY7-80/3+1-275	BY7-80/3+1-320	BY7-80/3+1-385	BY7-80/3+1-440
	Code: B0727531080	Code: B0732031080	Code: B0738531080	Code: B0744031080
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.0kV	up: 2.2kV	up: 2.5kV	up: 3.0kV



100kA	BY7-100/3+1-275	BY7-100/3+1-320	BY7-100/3+1-385	BY7-100/3+1-440
	Code: B0727531100	Code: B0732031100	Code: B0738531100	Code: B0744031100
	Uc: 275V	Uc: 320V	Uc: 385V	Uc: 440V
	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA	In(8/20 μS): 60kA
	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 100kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.5kV



BY7-40/2-500



BY7-60/2-500

### BY7 Series Surge Protective Device

#### Introduction

BY7 DC series SPD have a good discharge capacity,  $U_c$  value 500-1000V series is suitable for lightning or surge B,C class protection of solar energy and wind energy etc. mini type DC generate electricity system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Conveniently assemble modes, according to different requests, can change 3P mode to 2+1 mode or assemble N-PE module with 2+N-PE mode.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>
  - 1) A visual display on the protector about its operation;
  - 2) A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
  - 3) Convenient to be pulled or inserted, possible to remove failed module.
- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

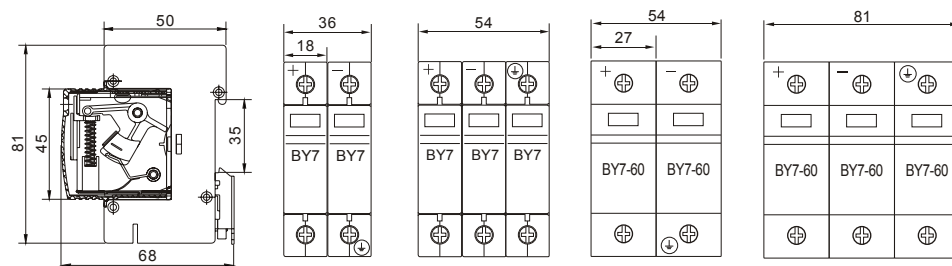
1. Surge protection device
2. Design No.
3. Max. discharge current  $I_{max}$ (kA)
4. Combination mode
5. Max. continuous operating voltage  $U_c$ (V)
6. Accessories: remote signal terminal: kx-normal open; bx-normal close

#### Performance parameters

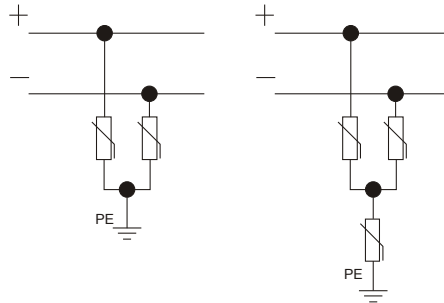
Type	BY7-40/2		BY7-60/2		BY7-80/2	
Max.continuous operating voltage $U_c$ (V)	500V		600V	800V	1000V	
Nominal discharge current $I_n$ 8/20 $\mu$ S (kA)	20kA		30kA		40kA	
Max.discharge current $I_{max}$ 8/20 $\mu$ S (kA)	40kA		60kA		80kA	
Voltage protection level $U_p$ (kV)	$\leq 1.8kV$	$\leq 2.0kV$	$\leq 2.5kV$	$\leq 3.0kV$	$\leq 3.2kV$	$\leq 3.5kV$
Functional indication	Green window: functional; Red window: failed					
Response time(ns)	$< 25ns$					
Protection class IP	IP20					
House material	PA6					
Fire resistance	Comply with UL94V-0					
Inspection standard	IEC61643-1:1998					
Installation method	35mm DIN rail					

Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram



**Circuit diagram**



**Products list**

Product type	BY7-□□/2-500	BY7-□□/2-600	BY7-□□/2-800	BY7-□□/2-1000
Main technical specifications	Be suitable for surge protection of solar energy and wind energy generate electricity system .			
Capacity of discharge(I <sub>max</sub> )				



40kA	BY7-80/2-500	BY7-80/2-600	BY7-80/2-800	BY7-80/2-1000
	Code: B075002004D	Code: B076002004D	Code: B078002004D	Code: B071022004D
	Uc: 500Vdc	Uc: 600Vdc	Uc: 800Vdc	Uc: 1000Vdc
	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA	In(8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.8kV	up: 2.0kV	up: 2.5kV	up: 3.0kV



60kA	BY7-100/2-500	BY7-100/2-600	BY7-100/2-800	BY7-100/2-1000
	Code: B075002006D	Code: B076002006D	Code: B078002006D	Code: B071022006D
	Uc: 500Vdc	Uc: 600Vdc	Uc: 800Vdc	Uc: 1000Vdc
	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA	In(8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.2kV



80kA	BY7-100/2-500	BY7-100/2-600	BY7-100/2-800	BY7-100/2-1000
	Code: B075002008D	Code: B076002008D	Code: B078002008D	Code: B071022008D
	Uc: 500Vdc	Uc: 600Vdc	Uc: 800Vdc	Uc: 1000Vdc
	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA	In(8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.5kV	up: 3.0kV	up: 3.2kV	up: 3.5kV

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BY7-40/2+1-500



BY7-60/2+1-800

### BY7 Series Surge Protective Device

#### Introduction

BY7 DC series SPD have a good discharge capacity,  $U_c$  value 500-1000V series is suitable for lightning or surge B,C class protection of solar energy and wind energy etc. mini type DC generate electricity system.

- Adopt energy-rich voltage dependent resistor, nanosecond level speed of response.
- Conveniently assemble modes, according to different requests, can change 3P mode to 2+1 mode or assemble N-PE module with 2+N-PE mode.
- Capacity of overheated and surge protection
- Visual display on the protector<sup>1)</sup> and remote signal terminal<sup>2)</sup>
  - 1) A visual display on the protector about its operation;
  - 2) A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
  - 3) Convenient to be pulled or inserted, possible to remove failed module.
- DIN rail 35mm installation

#### Denominated indication

□ □ □ - □ □ / □ - □ □ □ □ □  
1 2 3 4 5 6

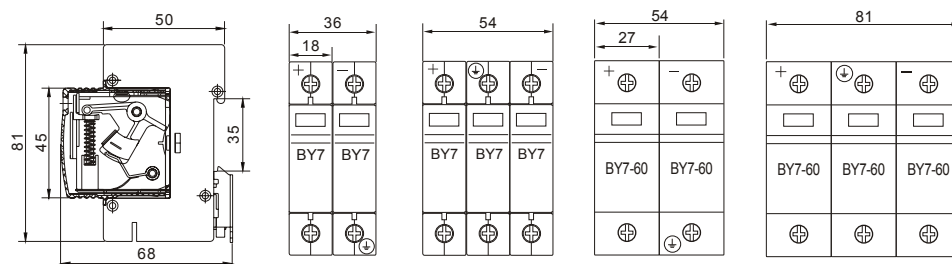
1. Surge protection device
2. Design No.
3. Max. discharge current  $I_{max}$ (kA)
4. Combination mode
5. Max. continuous operating voltage  $U_c$ (V)
6. Accessories: remote signal terminal: kx-normal open; bx -normal close

#### Performance parameters

Type	BY7-40/2		BY7-60/2		BY7-80/2	
Max.continuous operating voltage $U_c$ (V)	500V		600V	800V	1000V	
Nominal discharge current $I_n$ 8/20 $\mu$ S (kA)	20kA		30kA		40kA	
Max.discharge current $I_{max}$ 8/20 $\mu$ S (kA)	40kA		60kA		80kA	
Voltage protection level $U_p$ (kV)	$\leq 1.8kV$	$\leq 2.0kV$	$\leq 2.5kV$	$\leq 3.0kV$	$\leq 3.2kV$	$\leq 3.5kV$
Functional indication	Green window: functional; Red window:failed					
Response time(ns)	$< 25ns$					
Protection class IP	IP20					
House material	PA6					
Fire resistance	Comply with UL94V-0					
Inspection standard	IEC61643-1:1998					
Installation method	35mm DIN rail					

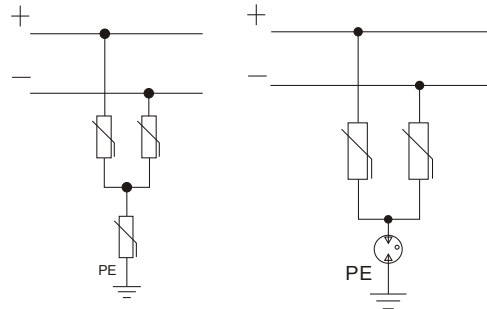
Attention: max continuous operating voltage is optional 275V,320V,385V,420V,485V,DC500V,DC600V.

#### Interrupter structure diagram





**Circuit diagram**



**Products list**

Product type	BY7-□□/2+1-500	BY7-□□/2+1-600	BY7-□□/2+1-800	BY7-□□/2+1-1000
Main technical specifications	Be suitable for surge protection of solar energy and wind energy generate electricity system .			
Capacity of discharge(I <sub>max</sub> )				



40kA	BY7-80/2+1-500	BY7-80/2+1-600	BY7-80/2+1-800	BY7-80/2+1-1000
	Code: B075002104D	Code: B076002104D	Code: B078002104D	Code: B071022104D
	U <sub>c</sub> : 500Vdc	U <sub>c</sub> : 600Vdc	U <sub>c</sub> : 800Vdc	U <sub>c</sub> : 1000Vdc
	I <sub>n</sub> (8/20 μS): 20kA	I <sub>n</sub> (8/20 μS): 20kA	I <sub>n</sub> (8/20 μS): 20kA	I <sub>n</sub> (8/20 μS): 20kA
	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 40kA
	up: 1.8kV	up: 2.0kV	up: 2.5kV	up: 3.0kV



60kA	BY7-100/2+1-500	BY7-100/2+1-600	BY7-100/2+1-800	BY7-100/2+1-1000
	Code: B075002106D	Code: B076002106D	Code: B078002106D	Code: B071022106D
	U <sub>c</sub> : 500Vdc	U <sub>c</sub> : 600Vdc	U <sub>c</sub> : 800Vdc	U <sub>c</sub> : 1000Vdc
	I <sub>n</sub> (8/20 μS): 30kA	I <sub>n</sub> (8/20 μS): 30kA	I <sub>n</sub> (8/20 μS): 30kA	I <sub>n</sub> (8/20 μS): 30kA
	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 60kA
	up: 2.0kV	up: 2.5kV	up: 3.0kV	up: 3.2kV



80kA	BY7-100/2+1-500	BY7-100/2+1-600	BY7-100/2+1-800	BY7-100/2+1-1000
	Code: B075002108D	Code: B076002108D	Code: B078002108D	Code: B071022108D
	U <sub>c</sub> : 500Vdc	U <sub>c</sub> : 600Vdc	U <sub>c</sub> : 800Vdc	U <sub>c</sub> : 1000Vdc
	I <sub>n</sub> (8/20 μS): 40kA	I <sub>n</sub> (8/20 μS): 40kA	I <sub>n</sub> (8/20 μS): 40kA	I <sub>n</sub> (8/20 μS): 40kA
	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 80kA
	up: 2.5kV	up: 3.0kV	up: 3.2kV	up: 3.5kV

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BY7-10/350-30

### BY7-10/350 Series Surge Protective Device

#### Introduction

The series products comply with IEC61643-1:1998 I classification testing condition, be suitable for surge B(I) class protection of low voltage distribution system.

- High capacity of let-through current
- Without leakage current
- Without residual current, reliable performance
- Conveniently installation and assem ble modes not only suitable for surge protection of single phase or three phase also as N-PE module match with limited voltage SPD, combination 2+1 or 3+1 protection mode.
- DIN rail 35mm installation

#### Denominated indication

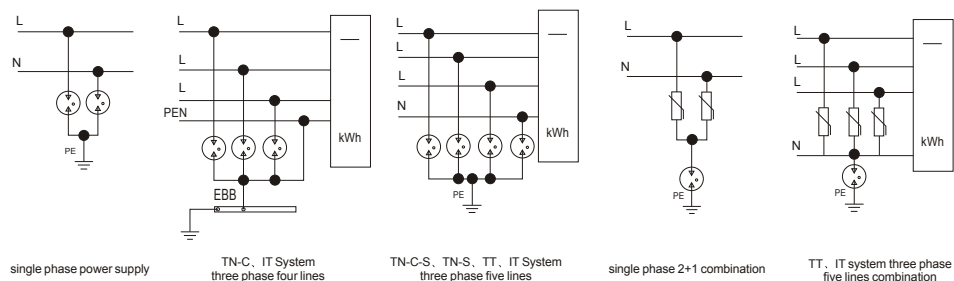
□□□ - □□  
1 2

1. Surge protection device
2. Impulse current limp(kA)

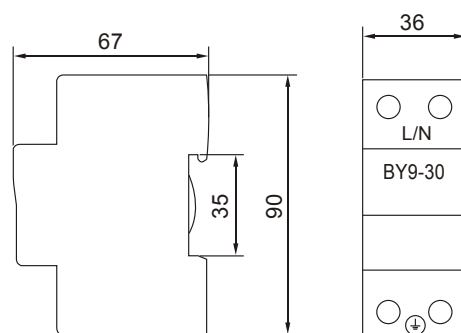
#### Performance parameters

Type	BY7-10/350-30	BY7-10/350-30
Electric charges Q	15As	30As
Max.continuous operating voltage Uc (V)	255V 400V	255V 400V
Impulse discharge current limp 10/350 μS (kA)	30kA	60kA
Voltage protection level Up ( kV)	≤1.5kV	≤1.5kV
Fuse	125A	250A
Protection class	IP20	
House material	Comply with UL94V-0	
Inspection standard	IEC61643-1:1998	
Installation method	35mm DIN rail	

#### Circuit diagram



#### Dimension



Products list

Product type	BY7-10/350	BY7-10/350
Main technical specifications		
Capacity of discharge(I <sub>max</sub> )		



30kA	BY7-10/350-30	BY7-10/350-30
	Code: F0125500030	Code: F0140000030
	U <sub>c</sub> : 255V	U <sub>c</sub> : 400V
	Electric charges Q: 15kA	Electric charges Q: 15kA
	Limp(10/350 μS): 30kA	Limp(10/350 μS): 30kA
	up: 1.5kV	up: 1.5kV



60kA	BY7-10/350-60	BY7-10/350-60
	Code: F0125500060	Code: F0140000060
	U <sub>c</sub> : 255V	U <sub>c</sub> : 400V
	Electric charges Q: 30kA	Electric charges Q: 30kA
	Limp(10/350 μS): 60kA	Limp(10/350 μS): 60kA
	up: 1.5kV	up: 1.5kV

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SLX

### SLX1 Box Surge Protective Device

#### Introduction

SLX1 series products are surge protective boxes for protection B class(I class)or C class(II class) of low voltage distribution system. It is suitable for communication base station etc. various electronic information network surge protection which based on AC power supply system.

- Adopt energy-rich voltage dependent resistor and lightning protection elements, with nanosecond level speed of response. No residual current and flash, more reliable working performance.
- Capacity of overheated and surge protection
- Visual display on the protector and remote signal terminal
  - 1)A visual display on the protector about its operation;
  - 2)A terminal effecting the long-distance monitor the operation of the protector, outside connecting lines needed;
- With many alarm functions: lack phases, lack earthing and with lightning protection failure alarm.
- With lightning counter function
- Module design ,replace conveniently
- Box with waterproof, fireproof and damp proof functions, more safe to use.
- DIN rail 35mm installation

#### Denominated indication

SLX □ □ □ / □ - B A

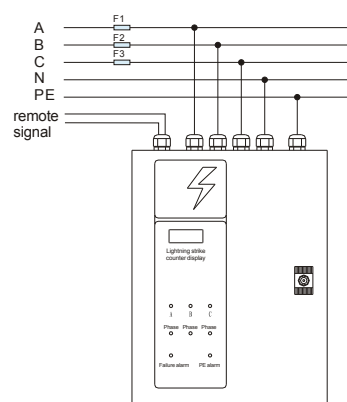
1 2 3 4 5 6

1. Box surge protective device
2. Design No.
3. Max. discharge current
4. 1: single phase ; 3: three phase
5. B-switch type
6. Lightning counter

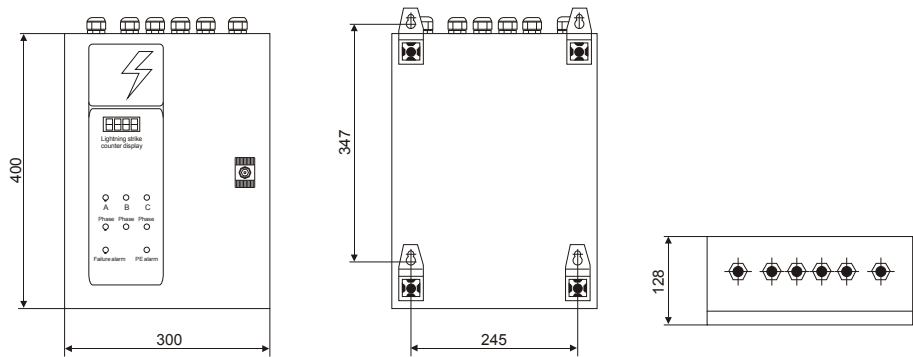
#### Performance parameters

Type	Iimp 10/350 μS	Imax 8/20 μS	Protection mode	Voltage protection level	Lightning counter	Commun-ication alarm	Shell protection class
SLX1-40/3-A		40	L-PE/N-PE	2.0kV	Yes	Yes	IP50
SLX1-60/3-A		60	L-PE/N-PE	2.0kV	Yes	Yes	IP50
SLX1-80/3-A		80	L-PE/N-PE	2.5kV	Yes	Yes	IP50
SLX1-100/3-A		100	L-PE/N-PE	2.5kV	Yes	Yes	IP50
SLX1-100/3-BA	30	100	L-PE/N-PE	2.5kV	Yes		IP50
SLX1-80/3-A		80	L-N-PE	1.5kV	Yes	Yes	IP50
SLX1-100/3-BA		100	L-N-PE	2.5kV	Yes		IP50
SLX1-100/3-A		100	L-N-PE	1.5kV	Yes	Yes	IP50
SLX1-120/3-A		120	L-N-PE	1.5kV	Yes	Yes	IP50
SLX1-150/3-A		150	L-N-PE	1.5kV	Yes	Yes	IP50

#### Circuit diagram



**Dimension**



**Products list**

Product type	SLX1-40/3-A	SLX1-60/3-A	SLX1-80/3-A	SLX1-100/3-A	SLX1-100/3-BA
	Be suitable for TN-C-S, IT three phase power supply system C class protection				



Code: S0130400040	Code: S0130400060	Code: S0130400080	Code: S0130400100	Code: S0130411100
Uc: 385V	Uc: 385V	Uc: 385V	Uc: 385V	Uc: 385V
I <sub>max</sub> (8/20 μS): 40kA	I <sub>max</sub> (8/20 μS): 60kA	I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 30kA
up: 2.0kV	up: 2.0kV	up: 2.5kV	up: 2.5kV	up: 2.5kV
L-PE/N-PE	L-PE/N-PE	L-PE/N-PE	L-PE/N-PE	L-PE/N-PE

Product type	SLX1-80/3-A	SLX1-100/3-A	SLX1-100/3-A	SLX1-120/3-A	SLX1-150/3-A
	Be suitable for TT three phase power supply system B class protection 3+NPE mode				



Code: S0130301080	Code: S0130301100	Code: S0131301100	Code: S0130301120	Code: S0130301150
Uc: 385V	Uc: 385V	Uc: 385V	Uc: 385V	Uc: 385V
I <sub>max</sub> (8/20 μS): 80kA	I <sub>max</sub> (8/20 μS): 100kA	I <sub>max</sub> (8/20 μS): 30kA	I <sub>max</sub> (8/20 μS): 120kA	I <sub>max</sub> (8/20 μS): 150kA
up: 2.5kV	up: 2.5kV	up: 2.5kV	up: 2.5kV	up: 2.5kV
L-N-PE	L-N-PE	L-N-PE	L-N-PE	L-N-PE

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SLX2

## SLX2 Box Surge Protective Device

### Introduction

SLX2 series are integrated surge protective box for protection C class(II class) of low voltage distribution system. It is suitable for communication base station etc. various electronic information network surge protection which based on AC power supply system.

- Adopt energy-rich voltage dependent resistor elements, with nanosecond level speed of response.
- Capacity of overheated and surge protection
- A visual display on the protector about its operation;
- Perfect construction perfect and installation conveniently

### Denominated indication

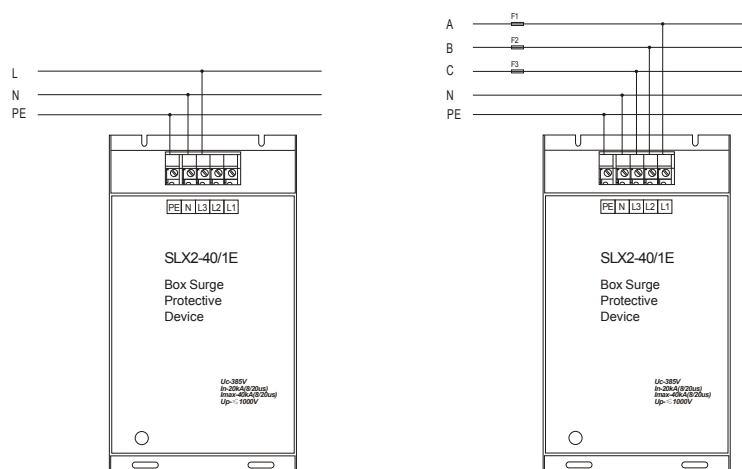
SLX 2 □□ / □ □  
1 2 3 4 5

1. Box surge protective device
2. Design No.
3. Max. discharge current
4. 1: single phase ; 3: three phase
5. F: 3+1mode

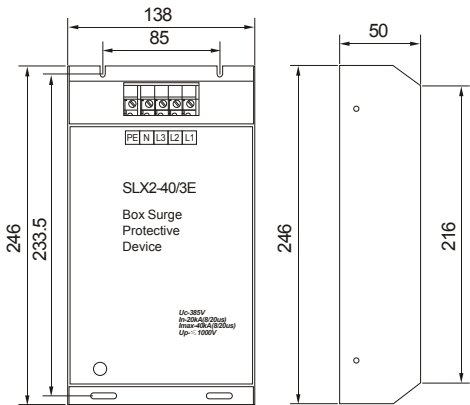
### Performance parameters

Type	Max.continuous operating voltage $U_c$ (V)	Max.discharge current $I_{max}$ 8/20 $\mu$ S (kA)	Protection mode	Voltage protection level $U_p$ ( kV)
SLX2-40/1	385	40	L-PE/N-PE	2.0kV
SLX2-60/1	385	60	L-PE/N-PE	2.0kV
SLX2-40/3	385	40	L-PE/N-PE	2.5kV
SLX2-40/3F	385	40	L-N-PE	2.0kV
SLX2-60/3	385	60	L-PE/N-PE	2.5kV
SLX2-60/3F	385	60	L-N-PE	2.0kV

### Circuit diagram



Dimension



Products list

Product type	SLX2-40/3E	SLX2-60/3E	SLX2-40/3F	SLX2-60/3F
	Be suitable for TN-C, TN-C-S, IT three phase power supply system C class protection			



Code: S0230400040	Code: S0230400060	Code: S0230401040	Code: S0230401060
Uc: 385V	Uc: 385V	Uc: 385V	Uc: 385V
In(8/20 µS): 20kA	In(8/20 µS): 30kA	In(8/20 µS): 20kA	In(8/20 µS): 30kA
Imax(8/20 µS): 40kA	Imax(8/20 µS): 60kA	Imax(8/20 µS): 40kA	Imax(8/20 µS): 60kA
up: 2.0kV	up: 2.5kV	up: 2.0kV	up: 2.5kV
L-PE/N-PE	L-PE/N-PE	L-PE/N-PE	L-PE/N-PE

Product type	SLX2-40/1	SLX2-60/1		
	Be suitable for single phase power supply			



Code: S0220200040	Code: S0220200060		
Uc: 385V	Uc: 385V		
In(8/20 µS): 20kA	In(8/20 µS): 30kA		
Imax(8/20 µS): 40kA	Imax(8/20 µS): 60kA		
up: 2.0kV	up: 2.0kV		
L-PE/N-PE	L-PE/N-PE		

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BYX-RJ11/CC12



BYX-RJ11/ED24

## BYX-RJ11 Series Surge Protective Device

### Introduction

BYX-RJ11/ series surge protective device main be used for telephone exchanger, various telephone lines fax machine Modem, ISDN, ADSL etc. telephone terminal equipments. To protect equipments from surge and over voltage damage when circuit is induced lightning or high voltage.

Product features:

- Small return circuit section and good protection performance
- Low residual voltage and quickly response time
- With over voltage and surge protection

### Denominated indication

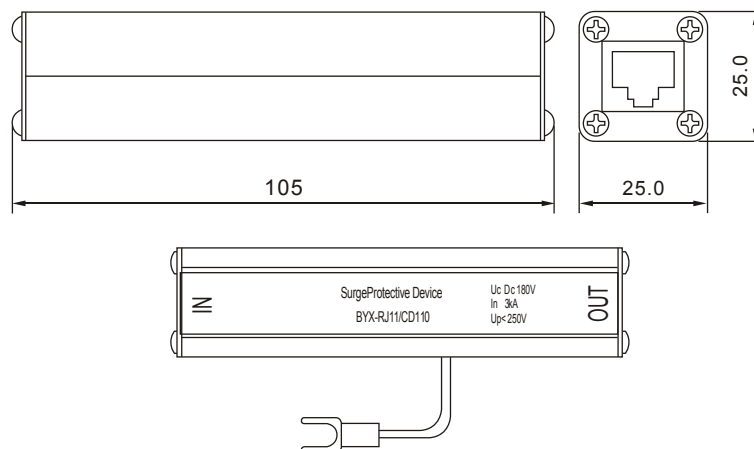
□ □ □ - □ / □ □ □  
1 2 3 4 5 6

1. Box surge protective device
2. Signal transmission mode X-twisted-pair
3. Connector type: RJ11
4. Protection pins: A-3,4; B-2,5; C-2,3,4,5; D-1,2,3,6; E-3,4,5,6
5. Frequency range: C-2MHz; D-10MHz; F-100MHz
6. Operating voltage: 5-DC5V; 12-DC12V; 24-DC24V; 48-DC48V; 110-DC110V

### Performance parameters

Type	BYX-RJ11/								
	AC110	BC110	DC110	DC48	BC48	DC48	AC24	BC24	DC24
Operating voltage Un	DC110V			DC48V			DC24V		
Max. continuous operating voltage Uc	DC150V			DC60V			DC30V		
Nominal discharge current Imax(8/20 μS)	3kA								
Limited voltage Up	≤500V			≤200V			≤120V		
Frequency range	2MHz, 10MHz, 100MHz								
Insert loss	<0.5dB								
Connector type	RJ11								
Protection pins	3,4; 2,5; 2,3,4,5; 1, 2, 3, 6; 3, 4, 5, 6								
Protection mode	Full mode protection								
Response time	1ns								
Shell material	Shield duralumin								

### Dimension





**Products list**

Operating voltage Un	5V	12V	24V	48V	110V
Main technical specifications	Be suitable for telephone exchanger, various telephone lines fax machine Modem, ISDN, ADSL etc. telephone terminal equipments				



BYX-RJ11/	BYX-RJ11/DC5	BYX-RJ11/CC12	BYX-RJ11/EC24	BYX-RJ11/BC48	BYX-RJ11/AC110
	Code: R1100504002	Code: R1101203002	Code: R1102405002	Code: R1104802002	Code: R1111001002
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA
	up: 120V	up: 120V	up: 120V	up: 200V	up: 500V
	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB



BYX-RJ11/	BYX-RJ11/DD5	BYX-RJ11/CD12	BYX-RJ11/ED24	BYX-RJ11/BD48	BYX-RJ11/AD110
	Code: R1100504010	Code: R1101203010	Code: R1102405010	Code: R1104802010	Code: R1111001010
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA
	up: 120V	up: 120V	up: 120V	up: 200V	up: 500V
	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB



BYX-RJ11/	BYX-RJ11/DF5	BYX-RJ11/CF12	BYX-RJ11/EF24	BYX-RJ11/BF48	BYX-RJ11/AF110
	Code: R1100504100	Code: R1101203100	Code: R1102405100	Code: R1104802100	Code: R1111001100
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA
	up: 120V	up: 120V	up: 120V	up: 200V	up: 500V
	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB

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BYX-RJ45/EC24



BYX-RJ45/FD48

### BYX-RJ45 Series Surge Protective Device

#### Introduction

BYX-RJ45/ series signal surge protective device is suitable for protection network system relative equipments which transmission by RJ45 connector and super cat.5 from over voltage surge current. The product rough protection and precise protection can meet various different lightning protection zones request. Conveniently usage and installation, product design comply with IEC61643-2 standard.

Main be suitable for server, station(inner LAN),HUB net exchanger and computer etc. To protect equipments from damage when wires circuit is induced by over voltage.

Product features:

- Small return circuit section and good protection performance
- Low residual voltage and quickly response time
- With over voltage and surge protection

#### Denominated indication

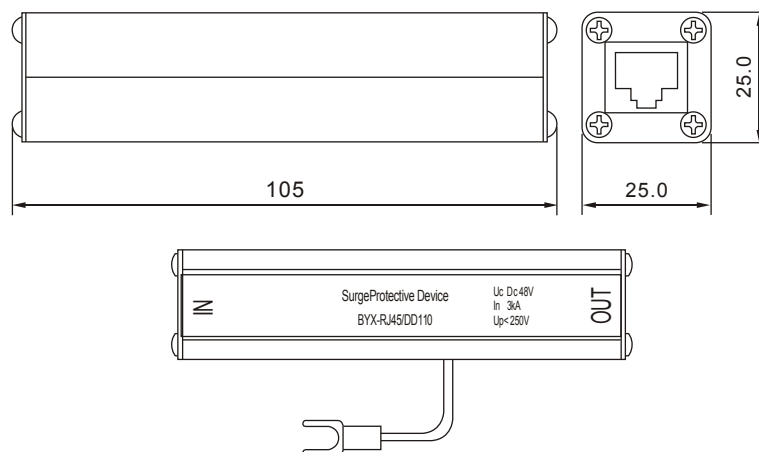
□ □ □ - □ / □ □ □  
1 2 3 4 5 6

1. Box surge protective device
2. Signal transmission mode: X-twisted-pair
3. Connector type: RJ45
4. Protection pins: C-2,3,4,5; D-1,2,3,6; E-3,4,5,6; F-1-8
5. Frequency range: C-2MHz; D-10MHz; F-100MHz
6. Operating voltage: 5-DC5V; 12-DC12V; 24-DC24V; 48-DC48V; 110-DC110V

#### Performance parameters

Type	BYX-RJ45/								
	AC110	BC110	DC110	DC48	BC48	DC48	AC24	BC24	DC24
Operating voltage $U_n$	DC110V			DC48V			DC24V		
Max. continuous operating voltage $U_c$	DC150V			DC60V			DC30V		
Nominal discharge current $I_{max}(8/20 \mu S)$	3kA								
Limited voltage $U_p$	$\leq 500V$			$\leq 200V$			$\leq 120V$		
Frequency range	2MHz, 10MHz, 100MHz								
Insert loss	$<0.5dB$								
Connector type	RJ11								
Protection pins	1-8; 2,3,4,5; 1, 2, 3, 6; 3, 4, 5, 6								
Protection mode	Full mode protection								
Response time	1ns								
Shell material	Shield duralumin								

#### Dimension



**Products list**

Operating voltage Un	5V	12V	24V	48V	110V
Main technical specifications	Be suitable for network equipment				



BYX-RJ45/	BYX-RJ45/DC5	BYX-RJ45/CC12	BYX-RJ45/EC24	BYX-RJ45/FC48	BYX-RJ45/CC110
	Code: R4500504002	Code: R4501203002	Code: R4502405002	Code: R4504806002	Code: R451103002
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA
	up: 40V	up: 60V	up: 120V	up: 200V	up: 500V
	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB



BYX-RJ45/	BYX-RJ45/DD5	BYX-RJ45/CD12	BYX-RJ45/ED24	BYX-RJ45/FD48	BYX-RJ45/CD110
	Code: R4500504010	Code: R4501203010	Code: R4502405010	Code: R4504806010	Code: R451103010
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA
	up: 40V	up: 60V	up: 120V	up: 200V	up: 500V
	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB



BYX-RJ45/	BYX-RJ45/DF5	BYX-RJ45/CF12	BYX-RJ45/EF24	BYX-RJ45/FF48	BYX-RJ45/DF110
	Code: R4500504100	Code: R4501203100	Code: R4502405100	Code: R4504806100	Code: R451103100
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA	In(8/20 μS): 3kA
	up: 40V	up: 60V	up: 120V	up: 200V	up: 500V
	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB

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BYX-JZ/GD24



BYX-JZ/GD48

### BYX-JZ Series Surge Protective Device

#### Introduction

BYX-JZ/ series signal surge protective device adopt t erminial connection mode and is suitable for connecting terminal connection, computer, auto- control fire alarm system. This product is used for protecting equipment from lightning surge or network over voltage.

Product features:

- High capacity of let-through current
- Low residual voltage and quickly response time
- Multi-circuit integrated installation

#### Denominated indication

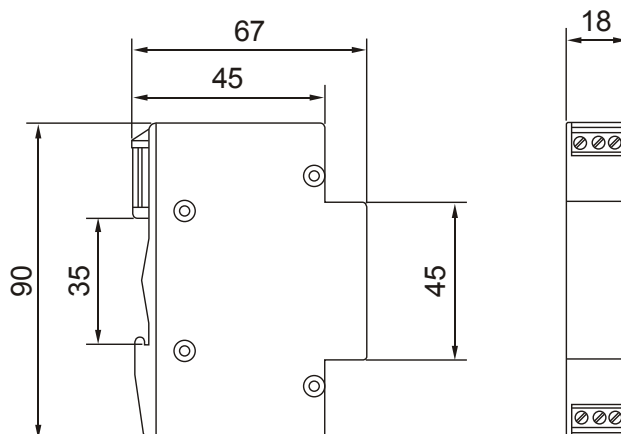
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1 2 3 4 5 6

1. Box surge protective device
2. Signal transmission mode: X-twisted-pair
3. Connector type: JZ-terminal
4. Protection pins: G-1, 2
5. Frequency range: C-2MHz; D-10MHz; F-100MHz
6. Operating voltage: 5-DC5V; 12-DC12V; 24-DC24V; 48-DC48V; 110-DC110V

#### Performance parameters

Type	BYX-JZ/								
	GC110	GC110	GC110	GC48	GC48	GC48	GC24	GC24	GC24
Operating voltage $U_n$	DC110V			DC48V			DC24V		
Max. continuous operating voltage $U_c$	DC150V			DC60V			DC30V		
Nominal discharge current $I_{max}(8/20 \mu S)$	10kA								
Limited voltage $U_p$	$\leq 500V$			$\leq 200V$			$\leq 120V$		
Frequency range	2MHz, 10MHz, 100MHz								
Insert loss	<0.5dB								
Connector type	JZ								
Protection pins	1, 2								
Protection mode	Full mode protection								
Response time	10ns								

#### Dimension



**Products list**

Operating voltage Un	5V	12V	24V	48V	110V
Main technical specifications	Be suitable for terminal connection mode twistedpair signal transmission				



BYX-JZ/	BYX-JZ/GC5	BYX-JZ/GC12	BYX-JZ/GC24	BYX-JZ/GC48	BYX-JZ/GC110
	Code: J0000501002	Code: J0001201002	Code: J0002401002	Code: J0004801002	Code: J0011001002
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: 120V	up: 120V	up: 120V	up: 200V	up: 500V
	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz	Frequency range: 2MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB



BYX-JZ/	BYX-JZ/GD5	BYX-JZ/GD12	BYX-JZ/GD24	BYX-JZ/GD48	BYX-JZ/GD110
	Code: J0000501010	Code: J0001201010	Code: J0002401010	Code: J0004801010	Code: J0011001010
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: 120V	up: 120V	up: 120V	up: 200V	up: 500V
	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz	Frequency range: 10MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB



BYX-JZ/	BYX-JZ/GF5	BYX-JZ/GF12	BYX-JZ/GF24	BYX-JZ/GF48	BYX-JZ/GF110
	Code: J0000501100	Code: J0001201100	Code: J0002401100	Code: J0004801100	Code: J0011001100
	Un: DC5V	Un: DC12V	Un: DC24V	Un: DC48V	Un: DC110V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: 120V	up: 120V	up: 120V	up: 200V	up: 500V
	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz	Frequency range: 100MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB

1



BYX-DB9-6



BYX-DB25-12

### BYX-DB Series Surge Protective Device

#### Introduction

BYX-DB series serial interface signal surge protective device is made by refined craft and according to IEC etc. relative standards new style serial interface signal surge protective device. Product adopt high quality electronic elements for 8/20us lightning protection, this type have 9pins,25pins etc. series interfaces: RS232,RS485/422 with communication, lines remote sensor and remote monitoring control functions.

For lightning or surge protection lines-lines,lines-grounding of using DB interface devices. The product have nanosecond response, low insert loss; installation conveniently without maintenance; perfect protection performance and technical qualification. Completely comply with GB, IEC and VDE etc. international and domestic standards.

Product features:

- Serial interface communication surge or over voltage protection
- Bidirectional surge protection
- Male or female interface,bolt or screw for choice
- Insert loss <0.5db
- High speed response

#### Denominated indication

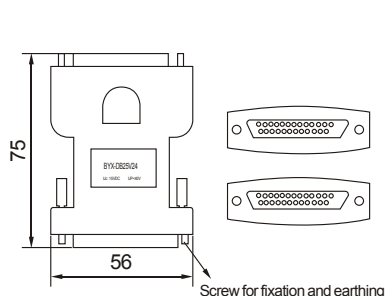
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1 2 3 4 5

1. Box surge protective device
2. Signal
3. Connector type: DB type
4. Protection pins: 9-1~9pins , 25-1~25pins
5. Operating voltage Un

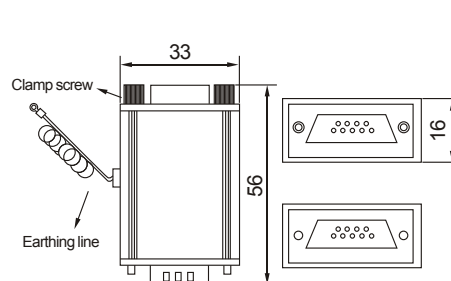
#### Performance parameters

Type	BYX-DB9-6	BYX-DB9-12	BYX-DB25-6	BYX-DB25-12
Typical operating system	RS485/422	RS232	RS485/422	RS232
Rated operating voltage Un	6V	12V	6V	12V
Max. operating voltage Uc	7V	15V	7V	15V
Voltage protection level (12/50 μS 0.5kV)	20V	40V	20V	40V
Capacity of let-through current (8/20 μS)	500A	500A	500A	500A
Rated load current	500mA	500mA	500mA	500mA
Protection route DB interface	1~9	1~9	1~25	1~25
Frequency range	10MHz	10MHz	2MHz	2MHz
Insert loss	<0.5dB	<0.5dB	<0.5dB	<0.5dB
Response time	1ns	1ns	1ns	1ns
Failure indication	Grounding route short circuit or switch			

#### Dimension



BYX-DB25-6



BYX-DB9-6

Products list

Product type	BYX-DB□-6	BYX-DB□-12
Main technical specifications	Suitable for RS485/422, RS232 operating system	



9 Pins	BYX-DB9-6	BYX-DB9-12
	Code: D0100609010	Code: D0100209010
	Un: DC6V	Un: DC12V
	In(8/20 μS): 500A	In(8/20 μS): 500A
	Up(12/50 μS): 20V	Up(12/50 μS): 40V
	Frequency range: 10MHz	Frequency range: 10MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB



25 Pins	BYX-DB25-6	BYX-DB25-12
	Code: D0100625002	Code: D0101225002
	Un: DC6V	Un: DC12V
	In(8/20 μS): 500A	In(8/20 μS): 500A
	Up(12/50 μS): 20V	Up(12/50 μS): 40V
	Frequency range: 2MHz	Frequency range: 2MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB

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BYT-N/50D12



BYT-BNC/75D24

## BYT Series Surge Protective Device

### Introduction

BYT series coaxial signal surge protective devices are suitable for close circuit TV monitoring system, protection system, satellite communication system and coaxial signal transmission computer network system. According to different signal range, transmission frequency, anti-interference and network surge impulse features, product connectors have BNC,N,TNC,L9, CC4 and FL10 etc.

Product features:

- High surge current capability
- Multi-class protection
- Little insert loss and low residual voltage
- Quickly response time and conveniently installation

### Denominated indication

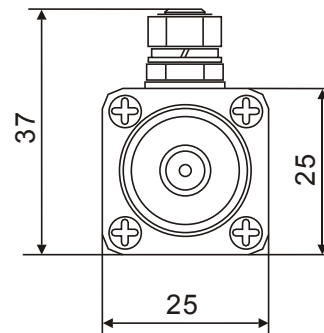
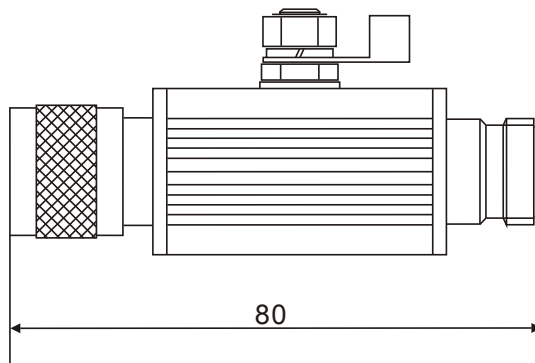
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1 2 3 4 5 6

1. Surge protective device
2. Signal transmission mode: T-Coaxial
3. Connector type: BNC, N, TNC, L9, CC4, F
4. Resistance: 50Ω, 75Ω
5. Frequency range: A-20kHz; B-1MHz; C-2MHz; D-10MHz; E-40MHz; F-100MHz
6. Operating voltage: 5-DC5V; 12-DC12V; 24-DC24V

### Performance parameters

Type	BYT-BNC/75D5	BYT-BNC/75D12	BYT-BNC/75D24
Operating voltage Un	DC5V	DC12V	DC24V
Max. continuous operating voltage Uc	DC6V	DC15V	DC30V
Nominal discharge current Imax(8/20 μS)	10kA		
Limited voltage Up	≤120V		
Frequency range	20kHz, 1MHz, 2MHz, 10MHz, 40MHz/100MHz		
Insert loss	<0.5dB		
Connector type	BNC, N, TNC, L9, CC4, F		
Resistance	50Ω, 75Ω		
Response time	10ns		
Remark	Shell grounding		

### Dimension





### Products list

Operating voltage Un	BYT-□/□B5	BYT-□/□C5	BYT-□/□D5	BYT-□/□E5	BYT-□/□F5
Main technical specifications	Be suitable for coaxial circuit or network signal transmission, and other terminal equipments.				



5V	BYT-BNC/75B5	BYT-BNC/75C5	BYT-BNC/75D5	BYT-BNC/75E5	BYT-BNC/75F5
	Code: T0100575001	Code: T0100575002	Code: T0100575010	Code: T0100575040	Code: T0100575100
	Un: DC5V	Un: DC5V	Un: DC5V	Un: DC5V	Un: DC5V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: 120V	up: 120V	up: 120V	up: 120V	up: 120V
	Frequency range: 1MHz	Frequency range: 2MHz	Frequency range: 10MHz	Frequency range: 40MHz	Frequency range: 100MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB
	Response time: 10ns	Response time: 10ns	Response time: 10ns	Response time: 10ns	Response time: 10ns



12V	BYT-N/50B12	BYT-N/50C12	BYT-N/50D12	BYT-N/50E12	BYT-N/50F12
	Code: T0201250001	Code: T0201250002	Code: T0201250010	Code: T0201250040	Code: T0201250100
	Un: DC12V	Un: DC5V	Un: DC5V	Un: DC5V	Un: DC5V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: 120V	up: 120V	up: 120V	up: 120V	up: 120V
	Frequency range: 1MHz	Frequency range: 2MHz	Frequency range: 10MHz	Frequency range: 40MHz	Frequency range: 100MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB
	Response time: 10ns	Response time: 10ns	Response time: 10ns	Response time: 10ns	Response time: 10ns



24V	BYT-F/75B24	BYT-F/75C24	BYT-F/75D24	BYT-F/75E24	BYT-F/75F24
	Code: T0602475001	Code: T0602475002	Code: T0602475010	Code: T0602475040	Code: T0602475100
	Un: DC24V	Un: DC24V	Un: DC24V	Un: DC24V	Un: DC24V
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: 120V	up: 120V	up: 120V	up: 120V	up: 120V
	Frequency range: 1MHz	Frequency range: 2MHz	Frequency range: 10MHz	Frequency range: 40MHz	Frequency range: 100MHz
	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB	Insert loss: 0.5dB
	Response time: 10ns	Response time: 10ns	Response time: 10ns	Response time: 10ns	Response time: 10ns

### Connector type



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BYW-BNC/50B



BYW-BNC/75B



BYW-F/75C



BYW-N/50C



BYW-SL16/50A

## BYW Series Surge Protective Device

### Introduction

BYW series surge protective device is suitable for satellite TV high frequency, satellite signal receiver, microwave station and mobile communication station system. To protect equipments from damage when meet inductive lightning impulse voltage.

Product features:

- Large let-through current capability
- Small VSWR and little insert loss
- Little insert loss and low residual voltage
- Standard connectors and conveniently installation

### Denominated indication

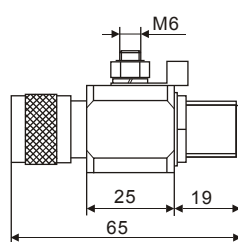
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1 2 3 4 5

1. Surge protective device
2. Signal transmission mode: microwave
3. Connector type: BNC, N, F, SL16
4. Resistance: 50Ω, 75Ω
5. Frequency range: A-0~650MHz; B-0~1000MHz; C-0~2000MHz

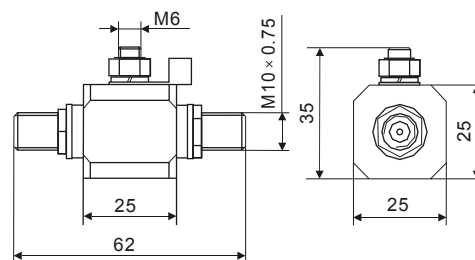
### Performance parameters

Type	BYW-BNC/75	BYW-N/75	BYW-F/75	BYW-SL16/75
Max. continuous operating voltage $U_c$	DC68V AC130V AC280V			
Nominal discharge current $I_{max}(8/20 \mu s)$	10kA			
Limited voltage $U_p$	$\leq 600V$			
Power(W)	$\leq 300W$			
Frequency range	0~650MHz, 0~1000MHz, 0~2000MHz			
Insert loss	$< 0.1dB$			
Connector type	BNC, N, F, SL16			
VSWR	$\leq 1.2$			
Resistance	50Ω, 75Ω			
Remark	1. shell grounding 2. customized connectors according to request K-J, J-J, K-K			

### Dimension



BYW-N



BYW-F

**Products list**

Operating voltage Un	BYW-BNC/75	BYW-N/75	BYW-F/75	BYW-SL16/75
Main technical specifications	Be suitable for microwave transmission system			



0-650MHz	BYW-BNC/75A	BYW-N/75A	BYW-F/75A	BYW-SL16/75A
	Code: W0100075650	Code: W0200075650	Code: W0300075650	Code: W0400075650
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: ≤600V	up: ≤600V	up: ≤600V	up: ≤600V
	Frequency range: 650MHz	Frequency range: 650MHz	Frequency range: 650MHz	Frequency range: 650MHz
	Insert loss: 0.1dB	Insert loss: 0.1dB	Insert loss: 0.1dB	Insert loss: 0.1dB
	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2

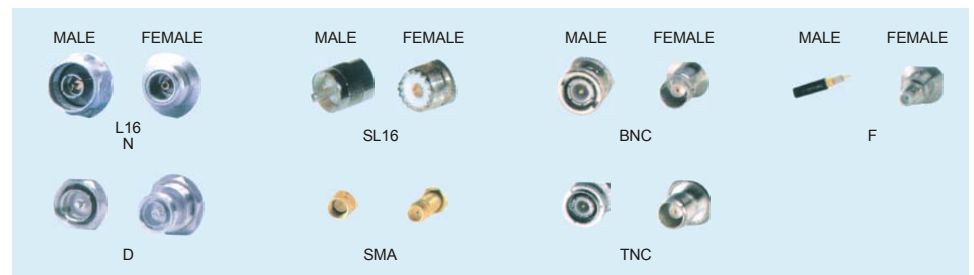


0-1000MHz	BYW-BNC/75B	BYW-N/75B	BYW-F/75B	BYW-SL16/75B
	Code: W0100075102	Code: W0200075102	Code: W0300075102	Code: W0400075102
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: ≤600V	up: ≤600V	up: ≤600V	up: ≤600V
	Frequency range: 1000MHz	Frequency range: 1000MHz	Frequency range: 1000MHz	Frequency range: 1000MHz
	Insert loss: 0.1dB	Insert loss: 0.1dB	Insert loss: 0.1dB	Insert loss: 0.1dB
	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2



0-2000MHz	BYW-BNC/75C	BYW-N/75C	BYW-F/75C	BYW-SL16/75C
	Code: W0100075202	Code: W0200075202	Code: W0300075202	Code: W0400075202
	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA	In(8/20 μS): 10kA
	up: ≤600V	up: ≤600V	up: ≤600V	up: ≤600V
	Frequency range: 2000MHz	Frequency range: 2000MHz	Frequency range: 2000MHz	Frequency range: 2000MHz
	Insert loss: 0.1dB	Insert loss: 0.1dB	Insert loss: 0.1dB	Insert loss: 0.1dB
	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2

**Connector type**





BYX-BNC

**BYX-BNC Coaxial Signal Lightning Protector****Description**

BYX-BNC coaxial signal lightning protector perfect shape dimension, IP standard mode and 35mm DIN rail 35mm installation. Ports direction can be choose by one sides or different sides, easily to install. Product height is IU standard dimension, easily assemble several modules into 19 inches standard cabinet brace and also can adjust lightning connector and voltages to meet different requests, come to freely conveniently combination and installation.

- Discharge current come to 10KA
- Low voltage protection level
- DIN rail 35mm installation
- Two ports and two class surge protection
- Multi-connectors standard module design
- High response speed
- Bidirection connectors (F/M,F/F)
- Super transmission performance, low insert loss
- Information system surge over voltage protector
- Can integrate 1-24 ports combination mode

**Scope of application**

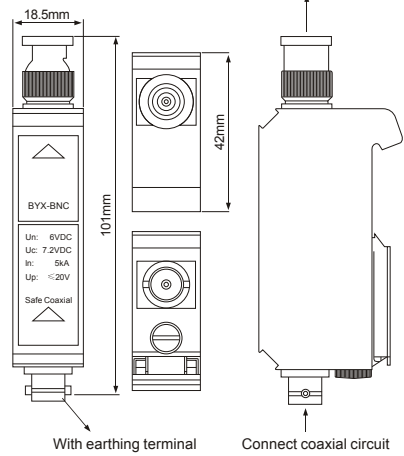
- Protection of public CATV terminal equipment
- Protection of monitoring system video equipment
- Protection of coaxial network signal equipment
- Protection of other signal equipment

**Performance parameters**

Type	BYX-BNC
Rated operating voltage	6VDC
Max. continuous operating voltage $U_c$	7.2VDC
Insulation resistance	$>0.1M\Omega$
Voltage protection level $(1.2/50\mu s, 0.5kV) U_p$ BNC core wire- BNC shield	$\leq 20V$
Nominal discharge current $I_n(8/20\mu s)$	5kA, 10 times
Max. discharge current $I_{max}(8/20\mu s)$	10kA, 2 times
Rated operating current	0.5A
AC withstand capability of resistance	2A, 1s, 5 times
Withstand capability of impulse	1.5kV. 10/700 $\mu s$ ; 37.5A. 10/300 $\mu s$ 10 times
Over load failure mode	Mode 2
Insert loss(10MHz)	$\leq 0.5dB$
Resistance	$75\Omega$
VSWR	$\leq 1.2$
Serial resistance	$1.5\Omega$
Connector type	BNC Connector
Response time	$\leq 1ns$
Dimension	See figure
Shell material/ shell protection class	UL94V-0/IP20
Installation mode	35mm DIN rail
Usage condition	Atmospheric pressure: 80kPa~160kPa; Temperature: $-40^{\circ}C \sim +70^{\circ}C$ ; Relative humid: 5%~96%

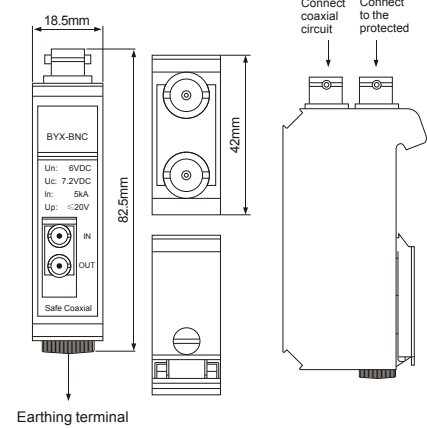
**Dimension**

**Different input ports**



Connect to equipment

**Same sides**



Earthing terminal

1



BYX-F

**BYX-F Coaxial Signal Lightning Protector****Description**

BYX - F coaxial signal lightning protector perfect shape dimension, IP standard mode and 35mm DIN rail 35mm installation. Ports direction can be choose by one sides or different sides, easily to install. Product height is IU standard dimension, easily assemble several modules into 19 inches standard cabinet brace and also can adjust lightning connector and voltages to meet different requests, come to freely conveniently combination and installation.

- Discharge current come to 10KA
- Low voltage protection level
- DIN rail 35mm installation
- Two ports and two class surge protection
- High response speed
- Super transmission performance, low insert loss
- Information system surge over voltage protector
- Can integrate 1-24 ports combination mode

**Scope of application**

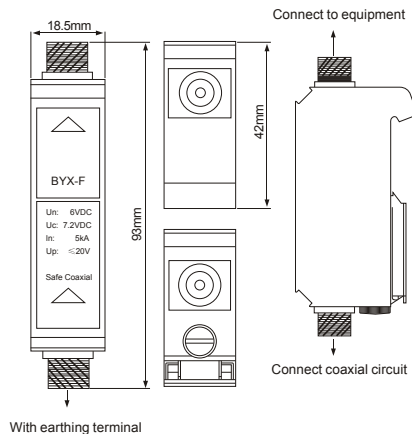
- Protection of public CATV terminal equipment
- Protection of monitoring system video equipment
- Protection of coaxial network signal equipment
- Protection of other signal equipment

**Performance parameters**

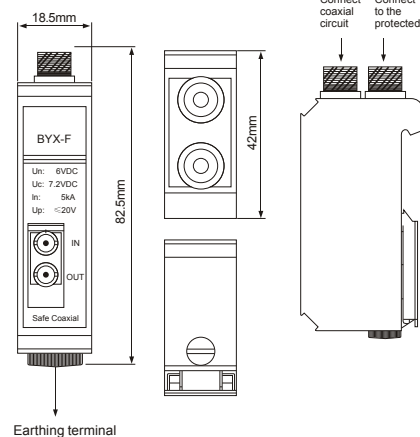
Type	BYX-F
Rated operating voltage	6VDC
Max. continuous operating voltage $U_c$	7.2VDC
Insulation resistance	$>0.1M\Omega$
Voltage protection level $(1.2/50\mu s, 0.5kV) U_p$ core wire- shield	$\leq 20V$
Nominal discharge current $I_n(8/20\mu s)$	5kA, 10 times
Max. discharge current $I_{max}(8/20\mu s)$	10kA, 2 times
Rated operating current	0.5A
AC withstand capability of resistance	2A, 1s, 5 times
Withstand capability of impulse	1.5kV. 10/700 $\mu s$ ; 37.5A. 10/300 $\mu s$ 10 times
Over load failure mode	Mode 2
Insert loss(10MHz)	$\leq 0.5dB$
Resistance	$75\Omega$
VSWR	$\leq 1.2$
Serial resistance	$1.5\Omega$
Connector type	F Connector
Response time	$\leq 1ns$
Dimension	See figure
Shell material/ shell protection class	UL94V-0/IP20
Installation mode	35mm DIN rail
Usage condition	Atmospheric pressure: 80kPa~160kPa; Temperature: $-40^{\circ}C \sim +70^{\circ}C$ ; Relative humid: 5%~96%

# Dimension

## Different input ports



## Same sides



1



BYX-RJ45

## BYX-RJ45 Network Signal Lightning Protector

## Description

BYX-RJ45 network signal lightning protector perfect shape dimension, IP standard mode and 35mm DIN rail 35mm installation. Ports direction can be choose by one sides or different sides, easily to install. Product height is IU standard dimension, easily assemble several modules into 19 inches standard cabinet brace and also can adjust lightning connector and voltages to meet different requests, come to freely conveniently combination and installation.

- Discharge current come to 5KA
- Low voltage protection level
- DIN rail 35mm installation
- Two ports and two class surge protection
- Multi-connectors standard module design
- High response speed
- RJ45 crystal connectors
- Super transmission performance, low insert loss
- Information system surge over voltage protector
- Can integrate 1-24 ports combination mode

## Scope of application

- Surge protection of terminal PC network card
- Surge protection of other network equipment

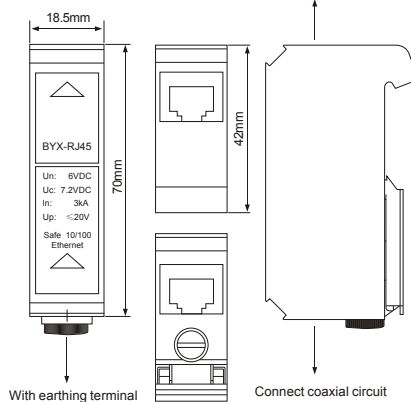
## Performance parameters

Type	BYX-RJ45	
Rated operating voltage	6VDC	
Max. continuous operating voltage $U_c$	7.2VDC	
Insulation resistance	>0.1M $\Omega$	
Voltage protection level (1.2/50 $\mu$ s, 0.5kV) $U_p$	line - line	$\leq 20V$
	line - earthing	$\leq 90V$
Nominal discharge current $I_n(8/20 \mu s)$	3kA, 10 times	
Max. discharge current $I_{max}(8/20 \mu s)$	5kA, 2 times	
Rated operating current	0.5A	
AC withstand capability of resistance	2A, 1s, 5 times	
Withstand capability of impulse	1.5kV. 10/700 $\mu$ s; 37.5A. 10/300 $\mu$ s	10 times
Over load failure mode	Mode 2	
Insert loss(10MHz)	$\leq 0.5dB$	
Transmission rate	100Mbps	
Serial resistance	1.5 $\Omega$	
Connector type	RJ45(1,2,3,6)	
Response time	$\leq 1ns$	
Dimension	See figure	
Shell material/ shell protection class	UL94V-0/IP20	
Installation mode	35mm DIN rail	
Usage condition	Atmospheric pressure: 80kPa~160kPa; Temperature: -40℃~+70℃; Relative humid: 5%~96%	

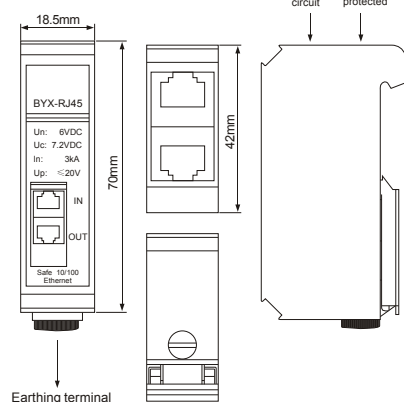


**Dimension**

**Different input ports**



**Same sides**



1



BYX-JZ

**BYX-JZ Terminal Signal Lightning Protector****Description**

BYX-JZ terminal signal lightning protector perfect shape dimension, IP standard mode and 35mm DIN rail 35mm installation. Ports direction can be choose by one sides or different sides, easily to install. Product height is IU standard dimension, easily assemble several modules into 19 inches standard cabinet brace and also can adjust lightning connector and voltages to meet different requests, come to freely conveniently combination and installation.

- Discharge current come to 10KA
- Low voltage protection level
- DIN rail 35mm installation
- Two ports and two class surge protection
- High response speed
- Super transmission performance, low insert loss
- Information system surge over voltage protector
- Can integrate 1-24 ports combination mode

**Scope of application**

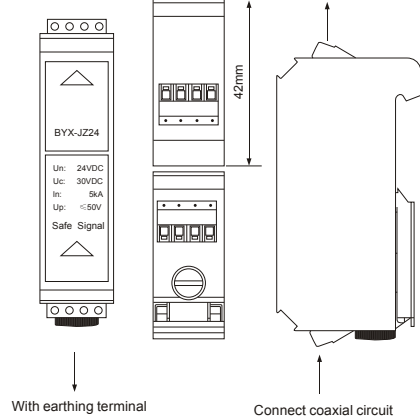
Be suitable for protection of various terminal connection and transmission by twisted-pair and fire alarm system.

**Performance parameters**

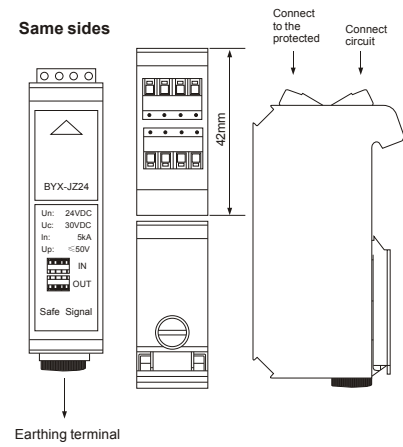
Type	BYX-JZ	
Rated operating voltage	6VDC	
Max. continuous operating voltage $U_c$	7.2VDC	
Insulation resistance	$>0.1M\Omega$	
Voltage protection level (1.2/50 $\mu s$ , 0.5kV) $U_p$	line - line	$\leq 20V$
	line - earthing	$\leq 90V$
Nominal discharge current $I_n(8/20\mu s)$	3kA, 10 times	
Max. discharge current $I_{max}(8/20\mu s)$	5kA, 2 times	
Rated operating current	0.5A	
AC withstand capability of resistance	2A, 1s, 5 times	
Withstand capability of impulse	1.5kV. 10/700 $\mu s$ ; 37.5A. 10/300 $\mu s$	10 times
Over load failure mode	Mode 2	
Insert loss(10MHz)	$\leq 0.5dB$	
Transmission rate	100Mbps	
Serial resistance	1.5 $\Omega$	
Connector type	JZ(1,2,3,4)	
Response time	$\leq 1ns$	
Dimension	See figure	
Shell material/ shell protection class	UL94V-0/IP20	
Installation mode	35mm DIN rail	
Usage condition	Atmospheric pressure: 80kPa~160kPa; Temperature: $-40^{\circ}C \sim +70^{\circ}C$ ; Relative humid: 5%~96%	

**Dimension**

**Different input ports**



**Same sides**





BYX-ZH

### BYX-ZH combination mode series surge protective device

#### Description

BYX-ZH combination mode series surge protective device have four type connectors. Be used for lightning surge protection of TV signal, video monitoring, network communication and twisted-pair communication routes or low voltage control signal transmission equipments.

This series products adopt 1U standard height dimension, assemble several modules as one 19 inches standard product brace, especially is suitable for usage of integration terminal machine room. Such as : various management centres, intelligent buildings and settlements, and other intelligent management buildings, hotels and factories etc.

#### Denominated indication

BY X - ZH □□  
1 2 3 4

1. Surge protective device
2. Signal type
3. Combination type
4. Main connector types: RJ, JZ, BNC, F

Code: Z1100640100, Z1200640100, Z1300640100, Z1400640100

#### Product features

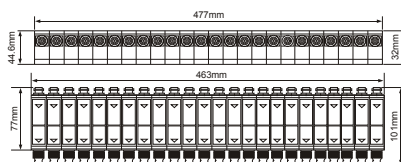
- Standard dimension can be assembled into 19 inch standard cabinet.
- Conveniently combination mode ,24 ports cabinet brace can according to different request to design.
- Reliable protection performance, discharge current come to 10KA
- Two ports and two classes surge protection, low voltage protection level.
- Nanosecond response speed
- DIN rail 35mm installation
- Superiority transmission performance, low insert loss
- Surge over voltage and over current protection of information system.

#### Scope of application

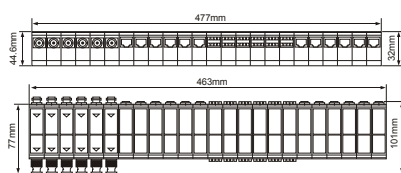
- Protection of public CATV terminal equipment
- Protection of monitoring system video equipment
- Coaxial network system
- Protection of twisted-pair communication and control signal equipment
- Protection of twisted-pair network signal equipment

## Cabinet combination installation and dimension

BYX-BNC/24(24□BNC Connector lightning protection module+FS19Installation brace)

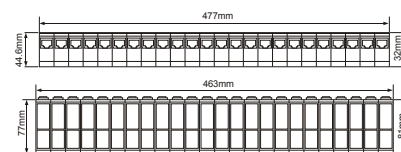


BYX-BNCx x+BYX-RJ45x x+BYX-Fx x+BYX-JZx +FS19  
(x lightning protection module quantities of different connectors, F19 installation brace)

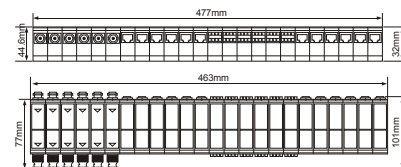


1. Above mode is different sides installation mode, except for aspect dimension and installation dimension, like the same sides installation mode.
2. Connection ways, please refer to label mark.

BYX-RJ45/24(24□Network Connector lightning protection module+FS19Installation brace)

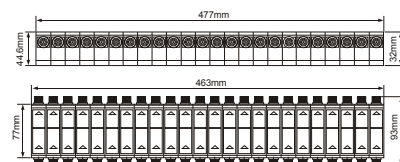


BYX-RJ45x x+BYX-BNCx x+BYX-Fx x+BYX-JZx +FS19  
(x lightning protection module quantities of different connectors, F19 installation brace)

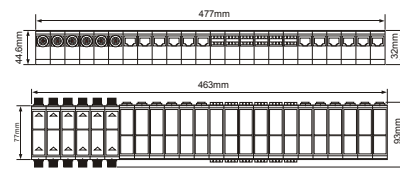


1. Above mode is different sides installation mode, except for aspect dimension and installation dimension, like the same sides installation mode.
2. Connection ways, please refer to label mark.

BYX-F/24(24□BNC Connector lightning protection module+FS19Installation brace)

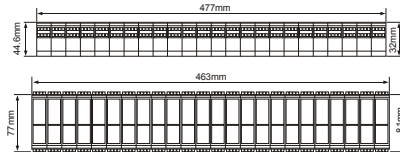


BYX-Fx x+BYX-RJ45x x+BYX-BNCx x+BYX-JZx +FS19  
(x lightning protection module quantities of different connectors, F19 installation brace)

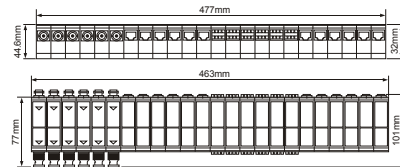


1. Above mode is different sides installation mode, except for aspect dimension and installation dimension, like the same sides installation mode.
2. Connection ways, please refer to label mark.

BYX-JZ/24(24□Network Connector lightning protection module+FS19Installation brace)



BYX-JZx x+BYX-BNCx x+BYX-Fx x+BYX-RJ45x +FS19  
(x lightning protection module quantities of different connectors, F19 installation brace)



1. Above mode is different sides installation mode, except for aspect dimension and installation dimension, like the same sides installation mode.
2. Connection ways, please refer to label mark.



### SLZH1-3(2) series video monitoring camera surge protective device

#### Introduction

- SLZH1-3(2) series video monitoring camera surge protective device is designed according to IEC lightning protection and CCTV monitoring detailed function request. The product is suitable for AC/DC power supply, integrated design and high response speed(10s). Low loss and with power failure LED indication, reduce protection cost, installation difficulty and installation space. Take best use of potential protective theory and improve effects.
- SLZH1-3(2) series video monitoring camera surge protective device Max.capacity of let-through current is 10KA meanwhile adopt two classes serial protection mode, the CCTV monitoring equipments can be protected completely.
- SLZH1-3/220: triad lightning protector: Be suitable for protection 220V AC power supply, monitoring video/sound frequency signal/ cloud terrace control route
- SLZH1-2/220: diad lightning protector: Be suitable for protection 220V AC power supply, monitoring video/sound frequency signal
- SLZH1-3/024: triad lightning protector: Be suitable for protection 6-24V AC/DC power supply, monitoring video/sound frequency signal/ cloud terrace control route
- SLZH1-2/024: diad lightning protector: Be suitable for protection 6-24V AC power supply, monitoring video/sound frequency signal
- Multi-functions surge over voltage protection
- Diad or triad design
- Lightning protection failure LED indication
- Low loss
- High response speed
- Max. discharge current

#### Denominated indication

□□ □ - □ / □ □  
1 2 3 4 5

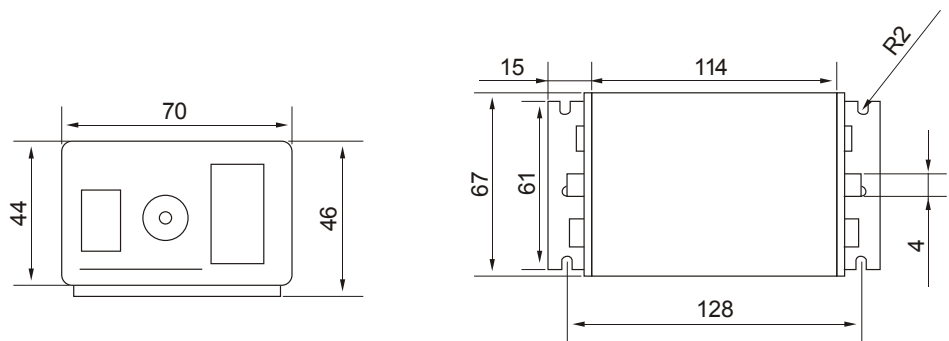
1. Surge protective device
2. Signal combination product
3. Connector type: DB type
4. Combination mode: 2-diad; 3-triad
5. Operating voltage Un

#### Product features

Type	SLZH1-3/220	SLZH1-2/220	SLZH1-3/024	SLZH1-2/024
Function	Power/video/control	Power/video	Power/video/control	Power/video
Failure indication	Panel function indication light is blacked out means lightning protection failure			
Port	Two port			
Shell material / shell protection class	Shielded metal aluminium /IP20			
Dimension	See figure			
Usage condition	Atmospheric pressure :80kPa~160kPa; Temperature: -40℃~+85℃; Relativity humid: 5%~96%			
Power protection parameters				
Nominal operating voltage Un	220VAC		24VAC	
Max. continuous operating voltage Uc	320VAC		30VAC/42VDC	
Nominal discharge current In(8/20 μs )	5kA		5kA	
Max. discharge current Imax(8/20 μs )	10kA		10kA	
Voltage protection level Up(8/20 μs ,5kA)	700V		120V	
Video/sound frequency protection parameters				
Nominal operating voltage Un	6VDC			
Max. continuous operating voltage Uc	7.2VDC			
Insulation resistance	≥ 0.1MΩ			
Nominal discharge current In(8/20 μs )	5kA			

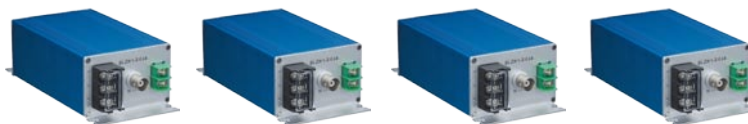
Max. discharge current $I_{max}(8/20 \mu s)$	10kA
Voltage protection level $U_p(1.2/20 \mu s)$	20V(BNC core wire- BNC shield)
Rated load current $I_L$	DC500mA
Over load protection mode	Mode 2
Insertion loss (10MHz)	$\leq 0.5dB$
Resistance	$75 \Omega$
VSWR	$\leq 1.2$
Serial resistance	$1.5 \Omega$
AC withstand capacity	2A, 1s, 5 times
Impulse withstand capacity	1.5kV, 10/700 $\mu s$ ; 37.5A, 5/300 $\mu s$
<b>Cloud terrace control protection parameters (SLZH1-3/xxx)</b>	
Nominal operating voltage $U_n$	24VDC
Max. continuous operating voltage $U_c$	30VDC
Insulation resistance	$\geq 2M \Omega$
Nominal discharge current $I_n(8/20 \mu s)$	5kA
Max. discharge current $I_{max}(8/20 \mu s)$	10kA
Voltage protection level $U_p(1.2/20 \mu s)$	85V(wire- BNC shield)
Rated load current $I_L$	DC500mA
Over load protection mode	Mode 2
Insertion loss (10MHz)	$\leq 0.5dB$
Resistance	-
VSWR	$\leq 1.2$
Serial resistance	$1.5 \Omega$
AC withstand capacity	2A, 1s, 5 times
Impulse withstand capacity	1.5kV, 10/700 $\mu s$ ; 37.5A, 5/300 $\mu s$

### Dimension



## Products list

Product type	SLZH1-3/220	SLZH1-3/024	SLZH1-2/220	SLZH1-2/024
Main technical specifications	Be suitable for with protect cloud terrace camera and other similar signal equipments.			



Protect operating power supply	Code: Z0122030010	Code: Z0102430010	Code: Z0122020010	Code: Z0102420010
	Un: 220VAC	Un: 24VAC	Un: 220VAC	Un: 24VAC
	Uc: 320VAC	Uc: 30VAC/42VDC	Uc: 320VAC	Uc: 30VAC/42VDC
	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA	In(8/20 μS): 5kA
	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA
	up: ≤700V	up: ≤120V	up: ≤700V	up: ≤120V

Video/sound frequency protection				
	Un: 6VDC	Un: 6VDC	Un: 6VDC	Un: 6VDC
	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA
	up: 20V(BNC core wire- BNC shield)	up: 20V(BNC core wire- BNC shield)	up: 20V(BNC core wire- BNC shield)	up: 20V(BNC core wire- BNC shield)
	Insertion loss: ≤0.5dB	Insertion loss: ≤0.5dB	Insertion loss: ≤0.5dB	Insertion loss: ≤0.5dB
	Resistance: 75Ω	Resistance: 75Ω	Resistance: 75Ω	Resistance: 75Ω
	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2	VSWR: ≤1.2
	Rated load current IL: DC500mA	Rated load current IL: DC500mA	Rated load current IL: DC500mA	Rated load current IL: DC500mA

Cloud terrace control signal protection (SLZH1-3/□□□)				
	Un: 24VDC	Un: 24VDC		
	Imax(8/20 μS): 10kA	Imax(8/20 μS): 10kA		
	up: 85V(wire- BNC shield)	up: 85V(wire- BNC shield)		
	Insertion loss: ≤0.5dB	Insertion loss: ≤0.5dB		
	Resistance: ≥2kΩ	Resistance: ≥2kΩ		
	VSWR: ≤1.2	VSWR: ≤1.2		
	Rated load current IL: DC500mA	Rated load current IL: DC500mA		



### SLZ Series Pre-discharge Lightning Rod

#### Introduction

Ionization pre-discharge lightning rod based on traditional discharge theory, added "promote ionization" pre-discharge performance. Then achieve earlier discharge than common lightning rods, meanwhile enlarge protection radius and increase protection performance.

Operating theory: lightning discharge physical phenomena is over length gap discharge . A whole discharge process including: precursor, main body discharge and residual light. When analyse lightning discharge theory, to find instant of lightning discharge to the grounding, local spaces electric filed whi ch near to grounding come to more than ten thousand V/m. The various top objects(various buildings, peaks and big trees ) which among this electric field all will be induced and generate large electric charge(polarity is contrary to the bottom of lightning cloud ).Because metal have good conductivity, specially the lightning rod tip will attract electric charge more easi ly from low to high electric charge filed. If meet electrostatic induction , the tip of lightning rod always with attract large electric charge. This theory is lightning rod usage feature. First of all, the lightning rod have two large potential difference that bring from atmospheric electric field. A great deal of ionization upwards spread and emerge anticipation discharge channel, when this channel connect the lightning cloud downwards channel, the lightning will be quick and safe connected to the grounding. So, come to protect various buildings.



SLZ1



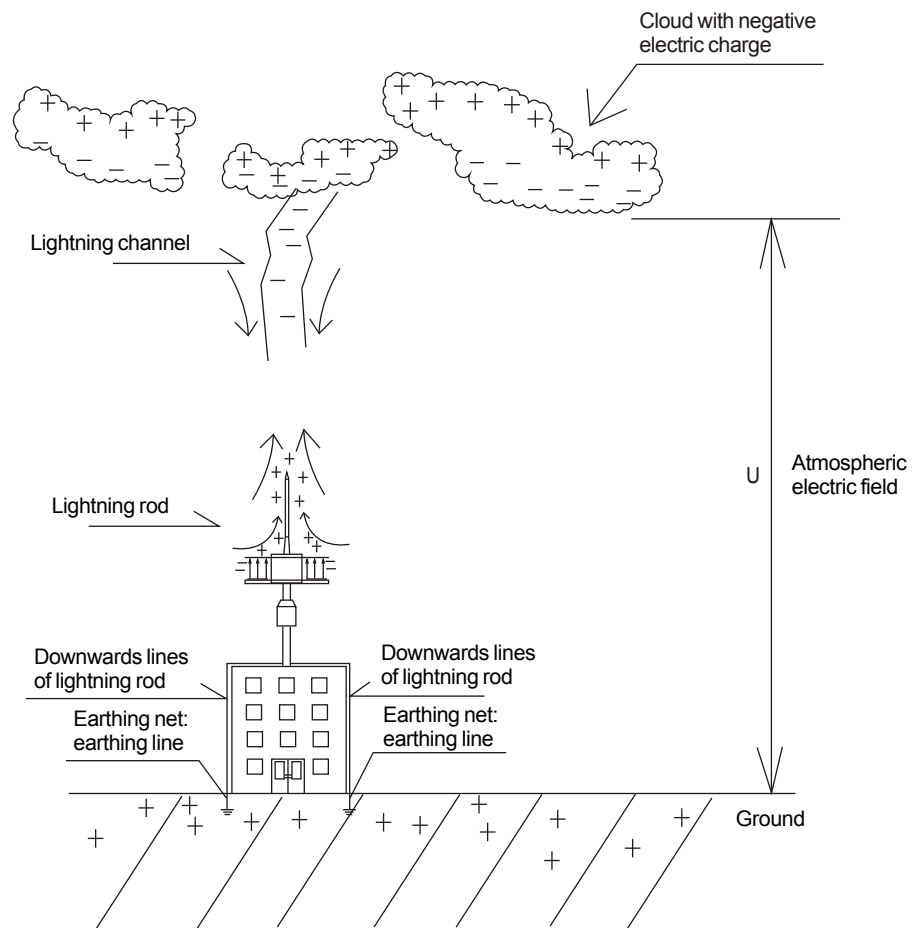
SLZ2



SLZ3



SLZ4



**Product features**

- Attract directly lightning, high protection class
- Repeatedly to make the electronic ion and pre-discharge, the electrical operating continuous and function normally after lightning.
- Non-electronic and long life; protective quality no change after lightning strike.
- With earlier pre-discharge function, auto attract lightning strike.
- Perfect design and reliably quality

**Denominated indication**

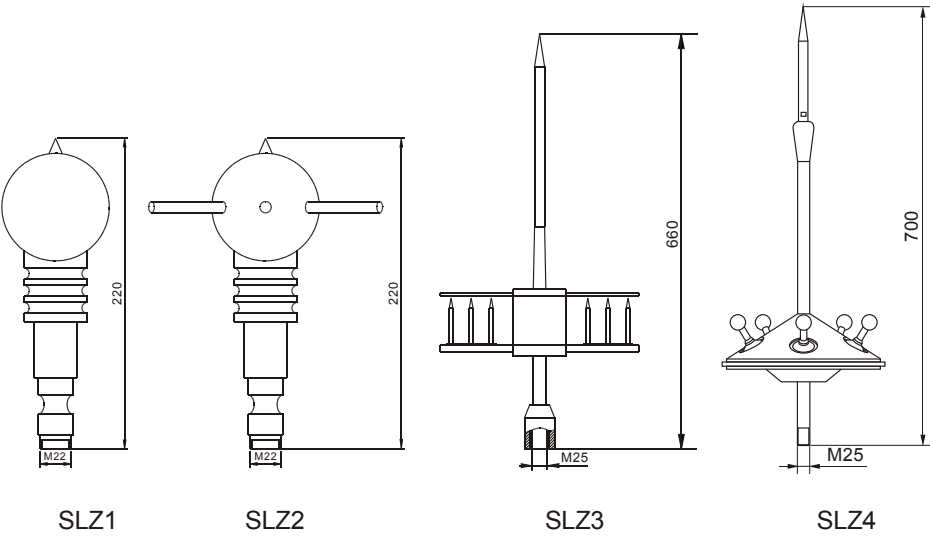
□□□ - □  
1        2

1. Greegoo ionization pre-discharge lightning rod  
2. Design No.

**Performance parameters**

Type	Code	Scope of application
SLZ1	L010000000	Be suitable for various buildings, communication base stations, microwave stations and radar stations
SLZ2	L020000000	
SLZ3	L030000000	
SLZ4	L040000000	

**Dimension**





CDL402D



CDL403B



CDL403D

### CDL403B series cabinet lightning protection power strip

#### Description

■ CDL403B series lightning protection power strip according to IEC standard to design , the product is suitable for III class protection of precise AC power sensor equipments from lightning or electromagnetic interference damage. This series lightning protection power strip use two class serial connection protective mode, max. capacity of let-through current 20KA, voltage protection level reduce to 800V, connectors of input and output compatible many countries standards and comply with many power rate. The lightning protection power strip with over load protection resume device men while with mobile features.

■ CDL403B series cabinet lightning protection power strip with many output jacks and compatible many countries standards. This product performance is reliable and conveniently, lightning protection module can be instead maintenance and reused.

■ CDL403B series cabinet lightning protection power strip is suitable for offices, stations exchangers and places of amusement with wonderfully protection performance.

■ 5000 times action without failure

■ Jack module meet many standards

■ Two ways reliable and conveniently earthing modes

■ Protection of surge or over load

■ Adopt lightning protection module design

■ Routes with over hearted auto-protection

■ Lightning protection with intelligent indication

■ Wrong connection lines and earthing with intelligent indication

■ Power supply indication

■ Multi-installation modes

■ Code: C402232001; C4032320020; C4033320020; C4034320020; C4035320020; C4036320020; C4037320020

#### Denominated indication

CDL403B - ☐ ☐ - ☐ ☐

1 2 3 4

1. Greegoo lightning protection power strip

2. Output combination type

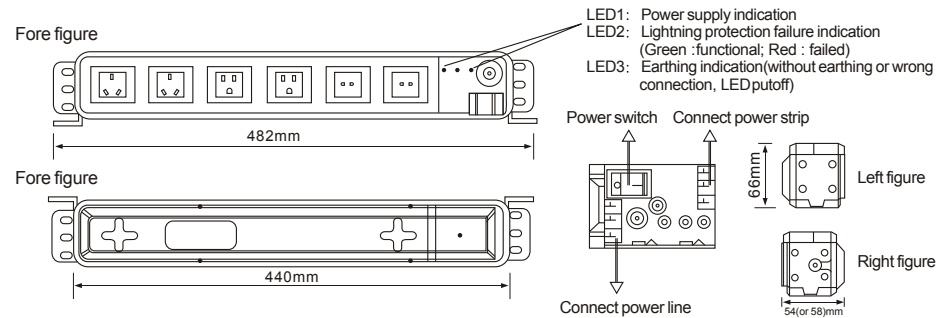
3. Input plug specification

4. Replacing module

#### Performance parameters

Type	CDL403B
SPD port type	Two ports
SPD type	Combination
Rated voltage $U_n$	250V
Max. continuous operating voltage $U_c$	320V
Rated load current $I_L$	10-16A
Nominal discharge current $I_n$	5-10kA
Max. discharge current $I_{max}$	10-20kA
Voltage protection level $U_p$	<800V
Short circuit device	
Over hearted protection	Fuse
Protection of surge /over load	Over load breaker
Mechanical performance	
Plug	Many plugs for choice
Failure indication	Green : normal / putoff: failure
Jack	Many jacks for choice
Installation	Several installation modes to choose
Operating environmental temperature	-40℃ ~+70℃
Shell material	UL94V-0
Shell protection class	IP20

### Dimension



### Combination indication

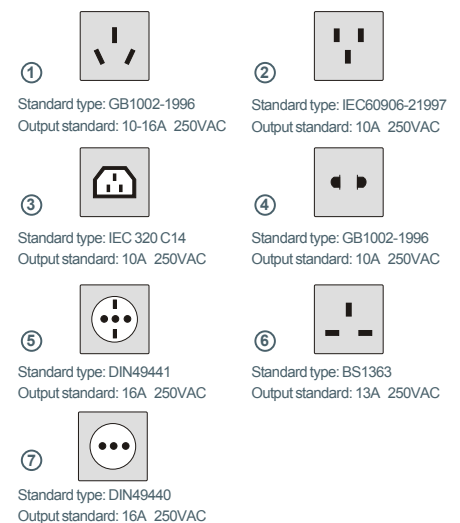
1. LSJG series cabinet lightning protection power strip, the module which can be replaced have six kinds

- 10A. Rated current: 10A, In10kA
- 10B. Rated current: 10A, In5kA
- 13A. Rated current: 13A, In10kA
- 13B. Rated current: 13A, In5kA
- 16A. Rated current: 16A, In10kA
- 16B. Rated current: 16A, In5kA

2. According to different requests, many types for choice, example figure 1



3. According to different requests, many types for choice, example figure 2



**Code**

Type	Output combination mode							Input plug specification						Replaced module					
	1	2	3	4	5	6	7	A	B	C	D	E	F	10A	10B	13A	13B	16A	16B
CDL403B-01A-10A	✓							✓						✓					
CDL403B-01A-10B	✓							✓							✓				
CDL403B-02B-10A		✓							✓					✓					
CDL403B-02B-10B		✓							✓						✓				
CDL403B-03C-10A			✓							✓				✓					
CDL403B-03C-10B			✓							✓					✓				
CDL403B-04A-10A				✓				✓						✓					
CDL403B-04A-10B				✓				✓							✓				
CDL403B-05D-16A					✓						✓							✓	
CDL403B-05D-16B					✓						✓								✓
CDL403B-06E-13A						✓						✓				✓			
CDL403B-06E-13B						✓						✓					✓		
CDL403B-07D-16A							✓				✓							✓	
CDL403B-07D-16B							✓				✓								✓
CDL403B-08A-10A	X2	X2		X2				✓						✓					
CDL403B-08A-10B	X2	X2		X2				✓							✓				
CDL403B-09A-10A	X4			X2				✓						✓					
CDL403B-09A-10B	X4			X2				✓							✓				
CDL403B-10A-10A	X2	X1	X1	X2				✓						✓					
CDL403B-10A-10B	X2	X1	X1	X2				✓							✓				

x: except above combination modes, new type is working on

## International and Domestic Standards

### International Electrotechnical Commission

- <Design code for protection of Structures against lightning>(IEC1024-1)
- <Lightning Electromagnetic Impulse Protection>(IEC1312-1)
- <Surge protection devices(SPD) in low-voltage power distribution systems>(IEC61643-1)
- <Surge protection devices(SPD) in telecom systems>(IEC61644-2-1)
- <Shell protection class>(IEC529:1989)
- <Wire less interference equipments system>(IEC384-14:1981)

### Standards of European and American

- France NFC61740<low voltage lightning protection>
- American UL1449<low voltage surge protection device>
- Germany VDE0675-6<low voltage lightning protector>
- English BS6651<low voltage lightning protector>

### China lightning protection relative standards

- <Surge protection devices(SPD) in low-voltage power distribution systems>(GB18802.1-2002)
- <Design code for protection of Structures against lightning>(GB50057-94)2000)
- <Lightning protection for computer information systems>(GA173-2002)
- <Specifications on Lightning Discharges and Earthing Design for Microwave Stations>(YD2011-93)
- <Temporary specifications on earthing design for telecommunication bureau(stations)>  
(Telecom integrated building part) (YDJ26-89)
- <Specifications on Lightning Protection and Earthing Design for Mobile Communication Base Stations>  
(YD5068-98)
- <Specifications on Lightning Protection for Power Supply System in Engineering of Telecommunications>  
(YD5078-98)

### SPD terms explanation

- Surge Protective Device(SPD)

The appliance used to limit transient over voltage and discharge the surging current, it includes one of nonlinear element at least.

- Voltage Switching Type (SPD)

SPD that it shows high impedance when there has no surging, and becomes low impedance while surging voltage occurs. Voltage switching type SPD generally composed of discharging gap, gas discharging tube, thyatron (silicone controllable rectifier) and threeending bidirectional silicone switching element. Sometimes it also call short circuit type SPD

- Voltage limiting type (SPD)

SPD that it shows high impedance when there has no surging, but the impedance will decrease gradually while surging current and voltage rise up. Common non-linear element: piezoresistance, and clamping diode. Sometimes it also call Clamping SPD

- Combination (SPD)

SPD constructed of voltage switching and voltage limiting elements. The characteristics curve can take on the characteristics of voltage switching or limiting type, or both.

### SPD terms explanation

- Nominal discharging current (In)

The 8/20 wave current peak that passing by SPD, used for grading SPD under class I test, or prospective treatment of SPD class I test

- Impulse current (Iimp)

SPD terms explanation SPD terms explanation It determined by current peak value and electric charge Q, it shall be performed according to the program for test of acting load. It is used for SPD classification of Class I test

- Maximum discharge current for class test( $I_{max}$ )  
Passing through SPD, the peak value of current with 8/20 wave, determined by the program for Class II acting load.  $I_{max}$  larger than  $I_n$ .
- Maximum continuous operating voltage ( $U_c$ )  
Maximum AC virtual voltage or DC voltage allowed to be applied on SPD continuously, the value equal to rated voltage.
- Voltage protection level ( $U_p$ )  
It indicates the performance of SPD limiting the voltage between terminals being connected. The value can be selected from the sheet of prior values. This value shall be larger than highest limited voltage.