ELECTRIC Suntree XinChi Electric

Plug in/out style surge protective device

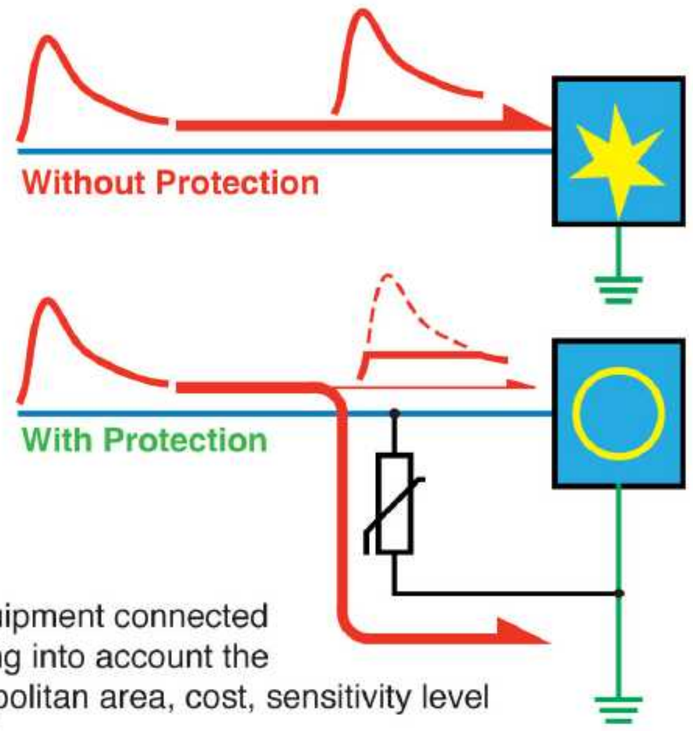
Remote signaling interface, could be remote control

Suitable for the wind power generation and PV system

Comply with IEC61643-1, IEC61643-21 and UL1449 ed.2 Standards

Lightning induced surges and electrostatic discharges can create very strong electromagnetic radiation over long distances, which can destroy all equipments connected to any nerby power lines. Whether routed inside or outside the buildings, all lines are at risk from such discharges and therefore the use of Surge Protection Device (SPD) is highly recommended for protecting the equipments that are connected to the power lines.

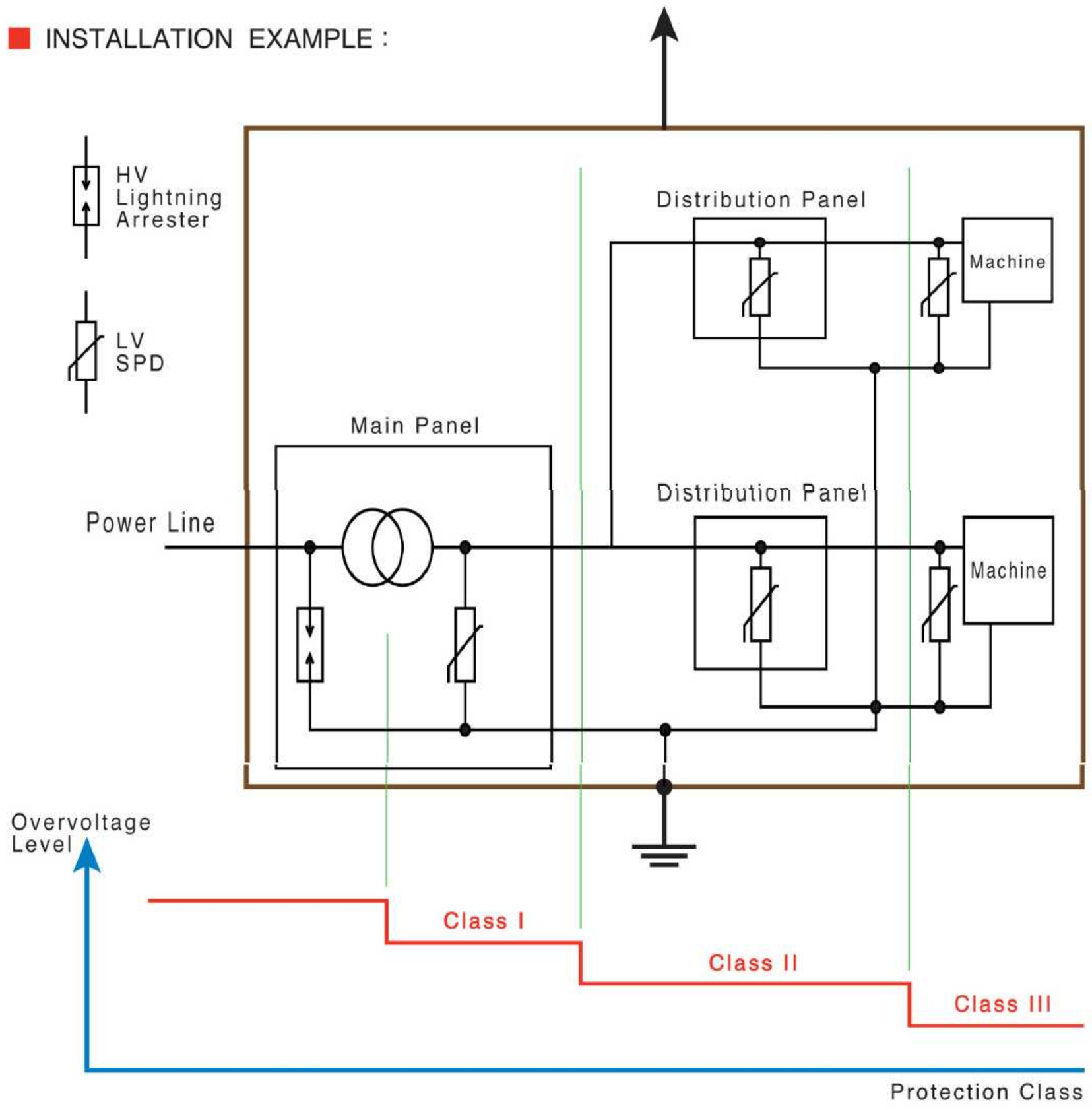
Also, surge can be induced by impulse current generated from internal supplying system and the ON and OFF (start and stop) of the power equipments such as arc furnace, motor, electrical and mechanical switching, capacitive and inductive load...etc. These surge currents would destroy any precise electronic device, cause error message or failure of power equipments, shorten their life expectancy and eventually break down the entire power plant. This is why Surge Protection Device is developed.



The induced surge currents are diverted to the earth before they can reach the equipments connected to the downstream power network while the overvoltages are kept to a harmless level and the equipments are kept running safely and normally.

These Surge Protection Devices are recommended for protecting any equipment connected to main power supplies. The selection of the product type is done by taking into account the exposition degree to lightning of the area, installation in isolated or metropolitan area, cost, sensitivity level of the equipment, the neutral earthing system and the installation method.

INSTALLATION EXAMPLE :



Keyword:1P, 2P, 3P, 4P, (+NPE), Similer OBO, Imax: 100kA, IEC6164-1

SUP1-D、C、B Surge protective device

Application

SUP1(D, C, B) 5 series surge protection device (in short: SPD, alias: surge suppressor, surge arrester) is suitable for TN-S, TN-C-S, TT, IT etc. power supply system of AC 50/60Hz, <380V, installed on the joint of LPZ1 or LPZ2 and LPZ3, it's designed according to IEC61643-1, GB18802.1, it adopts 35mm standard rail, there is a failure release mounted on the module of surge protection device. When the SPD fails in breakdown for over-heat and over-current, the failure release will help electric equipments separate from the power supply system and give the indication signal, green means normal, red means abnormal, it also could be replaced for the module when has operating voltage.

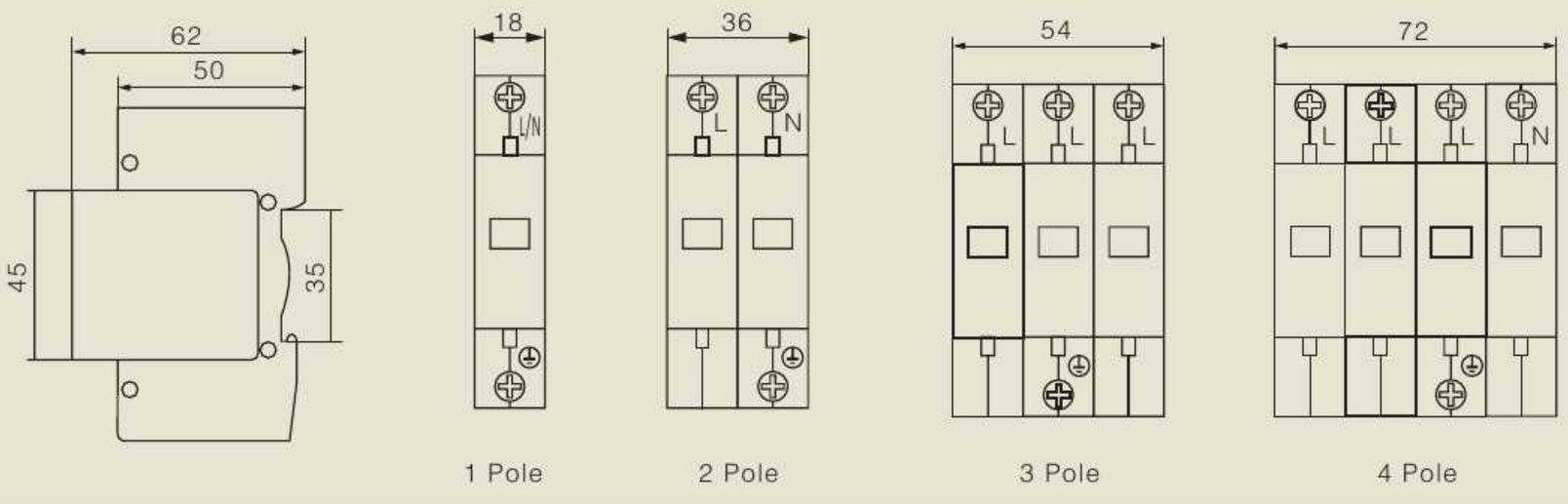
Product features

- Could be replaced for the module not need power off.;
- Maximum current of endure the lightning stroke 40kA (8/20 μ s).
- Time of response <25ns.;
- The color of visible window shows operating status, green means normal, red means abnormal.

Specifications

Technical Parameters	SUP1 D.C.B					
Protection Level B,C,D Grade	D.C.B					
Rated Operating Voltage Un(V~)	380V /220V					
Maximum Continuous Operating Voltage Uc(V~)	275V	320V	385V	385V	385V	420V
Voltage Protection Level Up(V~)kV	≤ 1.0	≤ 1.2	≤ 1.8	≤ 2.0	≤ 2.2	≤ 2.8
Nominal Discharge Current In(8/20s)kA	5	10	20	30	40	60
Maximum Discharge Current Imax(8/20s)kA	10	20	40	60	80	100
Response Time (ns)	<25					
Test Standard	IEC61643.1,GB18802.1					
Operating Environment (centigrade)	-40℃ ~+85℃					
Max Connection Line	35mm2 hard wire/ 35mm2 strand wire copper line					
Recommended Connection Line	16mm2 hard wire/ 25mm2 strand wire copper line					
Installation	Standard Rail 35mm					
Material of Outer Covering	Burning-proof Nylon					

Dimensions



Keyword: with Fuse, Imax: 120kA, 1P, 2P, 3P, 3P+NPE, 4P, Similar DEHN guard

SUP2 Surge protective device

Application

SUP2 series surge protective device (hereinafter called SPD) is suitably used in the TT、TN-S、TN-C、IT、TN-C-S and etc power supply system of AC 50/60Hz, rated voltage 380V and below, to protect from direct and indirect lightning impulse and other transient over voltage.SPD meets with GB18802.1/IEC61643-1 standard

Remote signaling interface

Installation

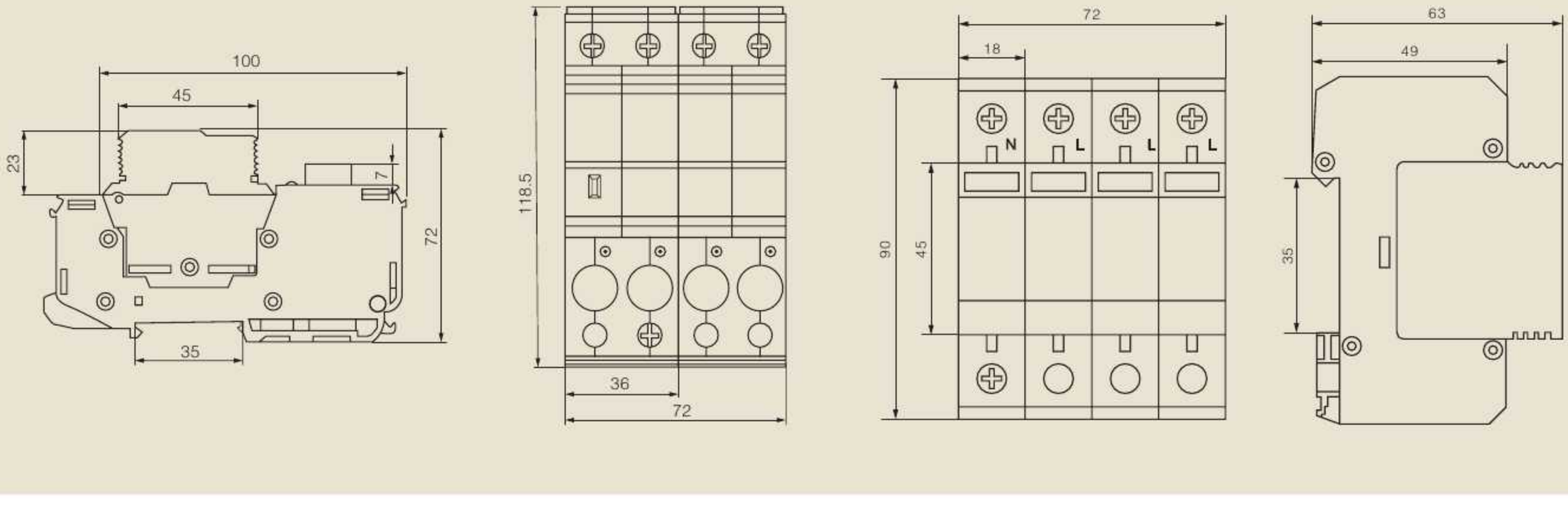
SUP2 is mounted between LPZ1 or LPZ2 zone and LPZ3 zone. The cross sectional area of multi-strand soft copper conductor to be connected: 2.5～ 35 mm^2. It is used in distribution boxes of living house, computer center, communication equipment, electronic equipment and control equipment or nearestsocket box.

NS6-40 is mounted between LPZ0B or LPZ1 zone and LPZ2 zone. The cross sectional area of multi-strand soft copper conductor to be connected: 2.5～ 35 mm^2.

Specifications

Type& Specs	SUP2-15		SUP2-40		SUP2-65		SUP2-80		SUP2-100		SUP2-120	
Max Continuous operating voltage Uc(VAC)	420	275	420	275	420	275	420	275	420	275	420	275
Protection voltage level UP (kV) ≤	1.2	1.0	1.8	1.5	2.5	1.5	2.5	1.8	2.8	2.0	3.0	2.0
Max.discharging current (8/20 μ s) Imax kA	15		45		65		80		100		120	
Max.discharging current (8/20 μ s)Imax kA	5		15		30		40		50		60	
Response time (ns)	<25											
Invalidation indicating	Aging invalidation: white: Normal ; red: invalidated											
Protection degree	IP20											
Application	Protection for incoming line											
Remote signal function	Can be ordered											
Remarks	Other max continuous voltage (Uc) should be customized											

Dimensions



Keyword: Imax: 120kA, 1P, 2P, 3P, 4P. Arch design, Similar CITEL, Standard rail 35mm, Fiber glass reinforced plastic

SUP3 Surge protective device

Application

SUP3 series surge protective device (hereinafter called SPD) is suitably used in the IT, TT, TN-C, TN-S, TN-C-S and etc power supplysystem of AC 50/60Hz, rated voltage up to 380V, to protect from directand indirect lightning impulse and other transient over voltage. As per the conditions of IEC61643-1:1998-02 standard, Class I surge protective device, it is category B surge protective device.

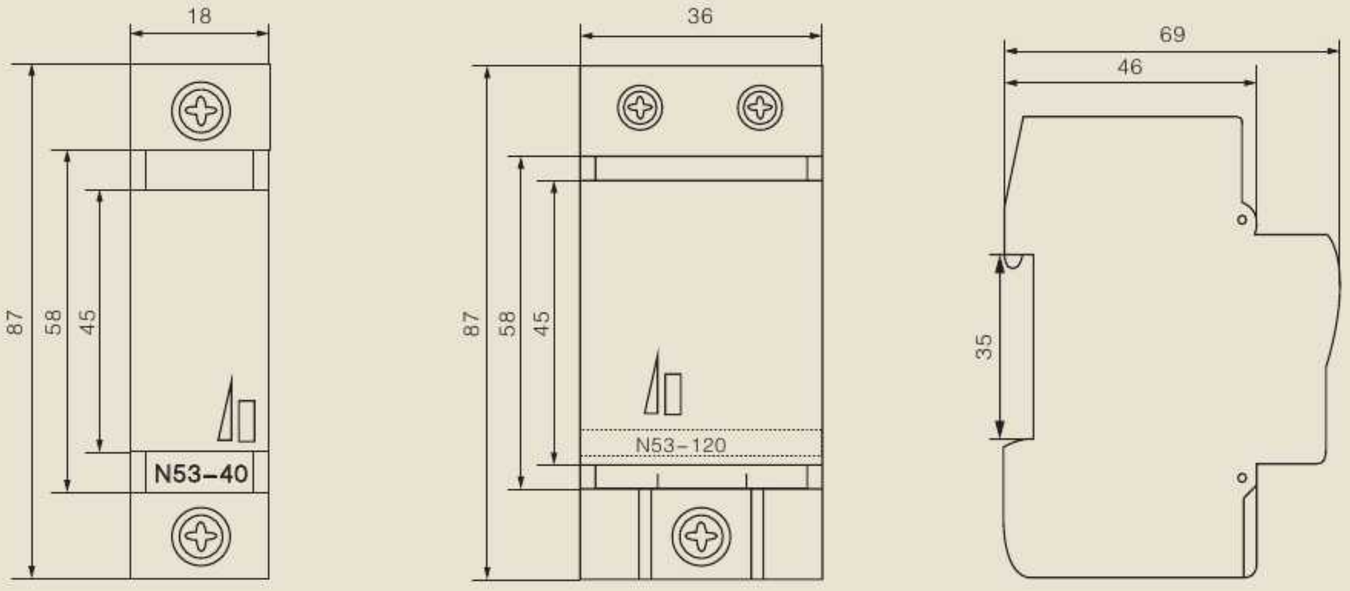
Operation Elements

- Single pole structure, single pole or three poles combined SPD available.
- SPD has built-in disconnecter, when SPD is invalid due to overheating or breakdown, the disconnecter can automatically separate SPD from the network, meanwhile send an indication signal.
- The visible window show white color in normal service, if to be separated from network, it will show red color. It can adopt Kelvin wiring mode.
- Large current carrying capacity, fast response time, low residual voltage.

Specifications

Type& Specs	SUP3-15		SUP3-40		SUP3-60		SUP3-80		SUP3-100		SUP3-120	
Max Continuous operating voltage Uc(VAC)	420	275	420	275	420	275	420	275	420	275	420	275
Protection voltage level UP (kV) ≤	1.0	1.0	1.8	1.5	2.5	1.5	2.5	1.8	2.8	2.0	3.0	2.0
Max.discharging current (8/20 μ s) Imax kA	15		45		60		80		100		120	
Nominal discharging current (8/20 μ s) In kA	5		15		30		40		50		60	
Response time (ns)	<25											
Invalidation indicating	Aging invalidation: white: Normal ; red: invalidated											
Protection degree	IP20											
Application	Protection for incoming line											

Dimensions



Keyword: 1P, 2P, 3P, 4P, (+NPE), Similer Schneider, Imax: 80A

SUP4 Surge protective device

Application

SUP4 series Switch type high-energy surge protective.Apply for power supply system below 380VAC.

- Could be replaced for the module not need rower cut.
- Maximum current of endure the lightning stroke 65kA(8/20 μ s).
- Time of response<25ns.
- The color of visible window shows operating status,green means normal,red means abnormal.

Specifications

Rate Operating Voltage Uc(V~)	220V/380V					
Maximum Continuous Operating Voltage Uc(V~)	275V	440V	275/320/385V	440V	375/385V	440V
Voltage Protection Level Up(V~)kA	≤ 0.8	≤ 1.0	≤ 1.0 ≤ 1.4 ≤ 1.6	≤ 1.8	≤ 1.8 ≤ 2.2	2.4
Nominal Discharge Current In(8/ μ 20 μ s)kA	5	10	15	20	30	40
Maximum Discharge Current Imax(8/ μ 20 μ s)kA	10	20	30	40	60	80
Response Time (ns)	<25					
Test Standard	GB18802、IEC61643-1					
The Cross Section of L/N Line	6		10		16	
The Cross Section of PE Line	10		16		25	
Fuse or Switch(A)	10		16 、32		40	
Operating Environment℃	-40℃ ~+85℃					
Relative Humidity(25℃)	≤ 95%					
Installation	Standard Rail 35mm					
Material Of Outer Covering	Fiber glass reinforced plastic					

Dimensions