

# SD-DIN-4P-80KA-B / SD-DIN-4P-100KA-C

Surge Protective Device

**MerCs**  
SAFE · PRODUCTIVE · RELIABLE



## Features

- Replaceable Modules
- Standard IEC61643-1
- Main Material High Grade Plastic
- Easy to use DIN mount

## Application

SD-DIN series surge protectors are used to protect electrical systems from lightning and over-voltage surges in AC50/60Hz 230 /400V systems. The product has internal non-serviceable separation device that can be replaced by replacing the replaceable modules. The When the module is exposed to a large enough over voltage or lightning strike the internal separation device will automatically separate the protector from the electrical network and simultaneously change the green display to red to indicate the module is no longer protecting the electrical network and needs to be replaced.

## Model Description

SD - DIN - <input type="text"/> P - <input type="text"/> KA - <input type="text"/>				
Surge Protective Device	DIN Mounting	Number of Poles (2 & 4)	Maximum Discharge Current	IEEE Category (A, B, C)

## Wiring Diagram

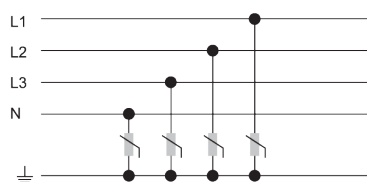


Diagram1:  
Three phase 380V network diagram

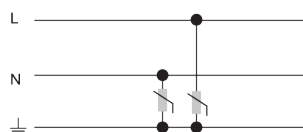
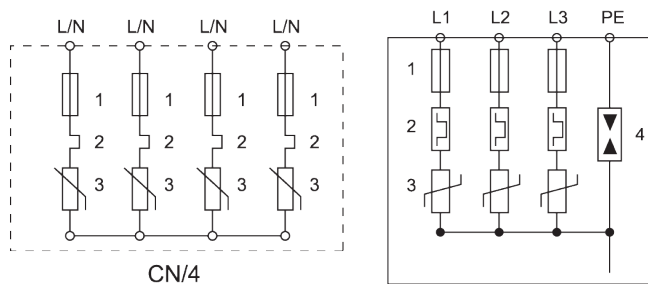


Diagram2:  
Single phase 220V network diagram

## Operational Principle

In a three phase four wire system, the SPD is connected between the three phase wires and the earth wire and between the neutral wire and the earth wire (See diagram1). In common situations, SPD is under high resistance. When the power network receives a surge over voltage caused by lightning or other reasons, the SPD will be immediately powered with in milliseconds. It will release the surge over voltage into the earth and protect the electrical equipment connected on the power network. When the surge voltage gets through the SPD and dissipates, the SPD will return to high resistance status. It will not affect the normal operation of the power network.

Diagram1. Three phase 380V network diagram. See Diagram 2 for the single phase 220V network. See Diagram 3 for the electrical principle of the surge protective devices.



### Note:

1. Puncture non-serviceable separator
2. Thermal non-serviceable separator
3. Non-linear pressure-sensitive resistor
4. Discharge electrode of new material

## Main Technical Parameters

Type	SD-DIN-4P-100KA-C / SD-DID-4P-80KA-B	
Technical Parameters		
Rated Working Voltage (V)	380V	380V
Maximum Continuous Operating Voltage U <sub>c</sub> (V~)	385V	385V
Voltage Protection Level Up (V~) K <sub>a</sub>	≤2.5	≤2.4
Nominal Discharge Current I <sub>n</sub> (8/20μ s)	60	40
Maximum Discharge Current I <sub>max</sub> (8/20μ s)	100	80
Response Times ns	<25 ns	
The Cross Section of L/N Line (mm <sup>2</sup> )	16, 25	10, 16
The Cross Section of Pe Line(mm <sup>2</sup> )	25, 35	25
Fuse or Switch (A)	63A, 100A	63A
Operating Environment (°C)	-40°C ~+85°C	
Relative Humidity (25 )	≤95%	
Installation	Standard Rail 35mm	
Material of Outer Covering	Fiberglass	

## Demension

