Surge protection device connector

K241 -K 242

K243 - K244

Application

The surge protection device connector (SPD IPC) is designed to protect low voltage overhead lines and electric equipment against over-voltages.
It enables the current from the lightning to be led to the ground.
The surge protection device connector includes the following elements:
- An insulation piercing connector,
- A terminal outlet inserted in the end cap of the connector,
- A surge protection device (metal oxide overmoulded with silicone) screwed into the terminal outlet,
- An earth system tail welded to the surge protection device.

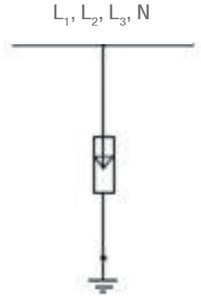
The surge protection device reacts:
- After a certain number of over-voltages, when the current passing through the surge protection device increases by more than 1mA,
- In the case of atmospheric discharge (lightning strike), the current exceeding 65mA.

After the surge protection device has performed, the earth system tail physically separates from the connector. The surge protection device then should be replaced with an available spare part (comprising the surge protection device and the earth system tail).

Description

- The connector is used outside only.
- The maximum use altitude is 2000m.
- The connector can be used at a temperature going from -40°C to +70°C.
- The use frequency is 48-62Hz.
- The connector, the terminal outlet, the surge protection device and the tail are made of UV and flame resistant materials.
- The connector is equipped with a 0.5m long, 6mm² insulated black multi-stranded tail.
- The connector protection degree is IP67.
- The connector has a response time <25ns.

The surge protection devise is Class II as defined in the **IEC 61643-1** standard.



Drawing of the connector

Installation

- The location of the surge protection device connection is decided according to the technical specifications and guidelines of the electrical regulatory authorities. These connectors must be installed on all overhead service and network line conductors, the phase(s) and neutral being linked by earth system tails.
- To protect long sections of overhead lines, it is recommended to use at least one surge protection device connector every 500 metres.
- Check that the terminal outlet is inserted into the connector fully and correctly.
- Position the connector on the conductor so that the surge protection device and its tail are directed towards the ground.
- Tighten the shear head until it breaks using a 13mm spanner. The 17mm head is only provided for an eventual dismantling. Do not use it to re-tighten.
- When the surge protection device connector has been used, protecting the power line against high voltages, the earth system tail is automatically disconnected from the base of the silicone cylinder. A new surge protection device, available as a spare part, must replace the old one. To do this, unscrew the old part of the silicone surge protection device from the terminal end and screw in a spare surge protection device, join all of the earth system tails together and link them to the earth.

Characteristics:

Code	Designation	I_{max} Maximal discharge current (kA)	U_c Continuous operating voltage V(AC)	I_n Nominal discharge current (kA)	U_p Protection level at In
K241	SPD IPC 15kA/275VAC 0.5m	40	275	15	< 1.86
K243	SPD SPARE PART 15kA/275VAC 0.5m	40	275	15	< 1.86
K242	SPD IPC 15kA/440VAC 0.5m	40	440	15	< 2.24
K244	SPD SPARE PART 15kA/440VAC 0.5m	40	440	15	< 2.24

Code	Designation	Main line insulated Al-Cu (mm^2)	Weight (kg)	Sales unit
K241	SPD IPC 15KA/275VAC 0.5m	16-95	0.300	10
K243	SPD SPARE PART 15KA/275VAC 0.5m		0.170	30
K242	SPD IPC 15KA/440VAC 0.5m	16-95	0.300	10
K244	SPD SPARE PART 15KA/440VAC 0.5m		0.170	30

Upon request, the earth system tails can be delivered in different colours and lengths, and can be assembled with a terminal lug at their end. Please contact us.

SEE SHEET
INSTALLATION / LV insulated toolings