

# ELMARK<sup>®</sup>

The Brand of Electricity

## DC SURGE PROTECTION DEVICES FOR PHOTOVOLTAIC (PV) SYSTEMS, TYPE 2



---

### Functions:

---

Type 2 PV SPD is a DC surge protector specially designed for photovoltaic power supply systems. Max continuous operating voltage reach DC1500V. These units must be installed in parallel on the DC networks to be protected and provide common and different modes protection. Its installed location is recommended at both ends of the DC power supply line (solar panel side and inverter/converter side), especially if the line routing is external and long. Type 2 SPDs protect against indirect lightning strikes, which are characterized by 8/20  $\mu$ s waveforms. An 8/20  $\mu$ s waveform means that the strike has an 8  $\mu$ s rise time and a duration to one-half peak of 20  $\mu$ s.

---

### Technical data:

---

- SPD classification according to IEC/EN61643-31: T2
- Max. continuous operating a.c.voltage Ucpv:
  - ¾ 2P: 600 and 1000V
  - ¾ 3P: 1500V
- Nominal discharge current (8/20µs) In: 20kA
- Maximum discharge current (8/20µs) I<sub>max</sub>: 40kA
- Voltage protection level DC+ /DV-to PE:
  - ¾ 2P 600V: ≤2.6kVType DC for DC current
- Overall and installation dimensions
- Circuit diagram
- Type DC for DC current
  - ¾ 2P 1000V: ≤4kV
  - ¾ 3P 1500V: ≤5.2kV
- Operating temperature range (Tu): -40° ~80°
- Operating State/Fault Indication: Green/Red
- Cross-section area (Min.): 4 mm<sup>2</sup>
- Cross-section area (Max.): 35 mm<sup>2</sup>
- Enclosure material: Thermal Plastic UL94-V0
- Ingress Protection: IP20

---

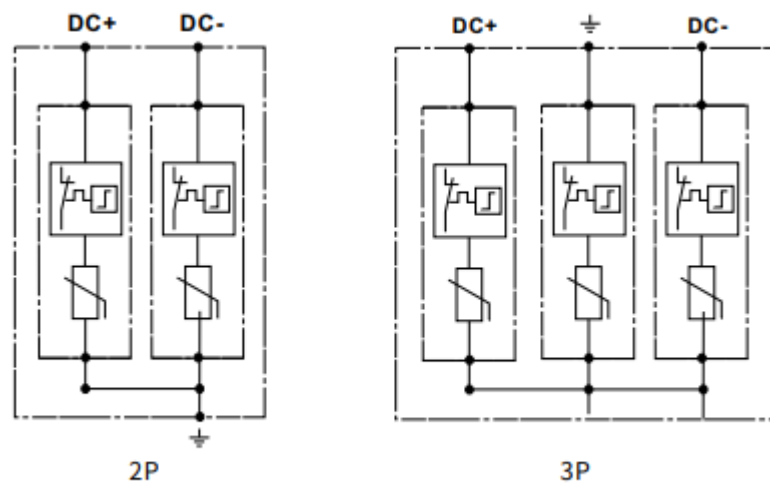
### Mounting:

---

- On DIN-rail
- Mounting position: vertical

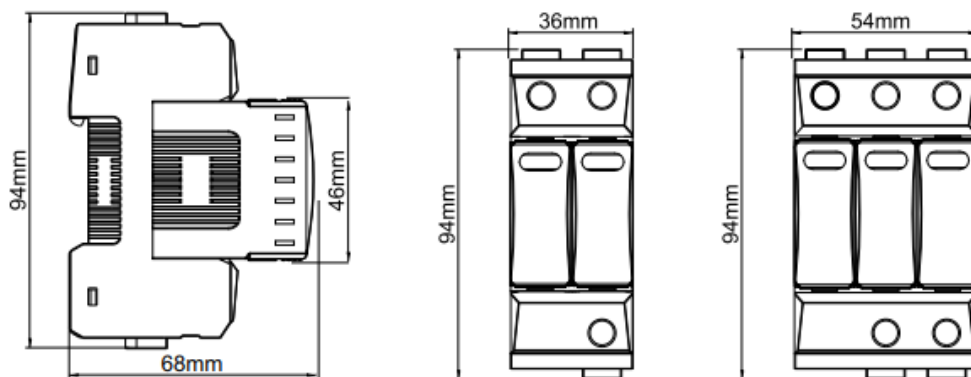
### Variants:

Catalogue number	Number of poles	$I_n$ (kA)	$I_{max}$ (kA)	$U_{cpv}$	Packing/Box (pcs)
64209	2P	20	40	600	1/60
64210	2P	20	40	1000	1/60
64309	3P	20	40	1500	1/40



Circuit diagram

### Dimensions:



Overall and installation dimensions

