

# TYPE 1/2

## PV MULTIPOLAR SURGE PROTECTOR SUP2-DC/600V/800V/1000V/1200V/1500V

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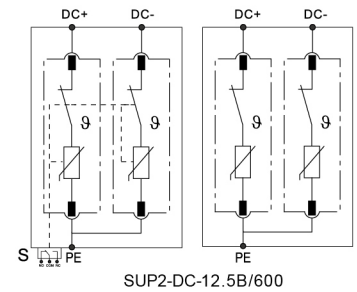
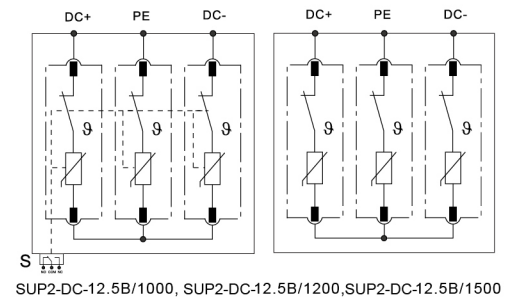
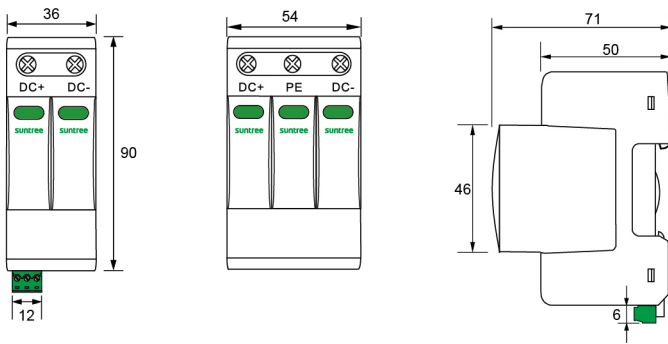
## MODEL AND SIGNIFICANCE

|                 |                        |               |   |                      |   |  |                 |  |                |
|-----------------|------------------------|---------------|---|----------------------|---|--|-----------------|--|----------------|
| <b>S</b>        | <b>UP</b>              | <b>2</b>      | - | <b>DC</b>            | / |  | <b>3</b>        | <b>1000</b>                                  | <b>X</b>       |
| Enterprise code | Surge protector device | Design Number |   | PV code DC dedicated |   | Maximum Discharge Current 40kA(T2 )7kA(T1) | Number of Poles | Rated Voltage 600VDC 1000VDC 1200VDC 1500VDC | Remote sensing |

## CLASS I•CLASS II•TYPE1•TYPE 2

- LOCATION OF USE: STRING BOX, INVERTER
- MODE OF PROTECTION: (DC+) - PE, (DC-) - PE, (DC+) - (DC-)
- SURGE RATINGS: ITOTAL = 12.5 KA (10/350 MS) ITOTAL = 40 KA (8/20 MS)
- IEC/EN/UL CATEGORY: CLASS I+II / TYPE 1+2
- PROTECTIVE ELEMENTS: HIGH ENERGY MOV
- HOUSING: PLUGGABLE DESIGN
- COMPLIANCE: IEC 61643-31/EN 61643-31/UL 1449 4TH EDITION

## DIMENSIONS - INTERNAL CONFIGURATION



- LEGEND**
- PE PROTECTIVE EARTH
  - S SIGNALING CONTACTS (OPTION)



# PV MULTIPOLAR SURGE PROTECTOR

• SUP2-DC/1500VDC

## TECHNICAL DATA

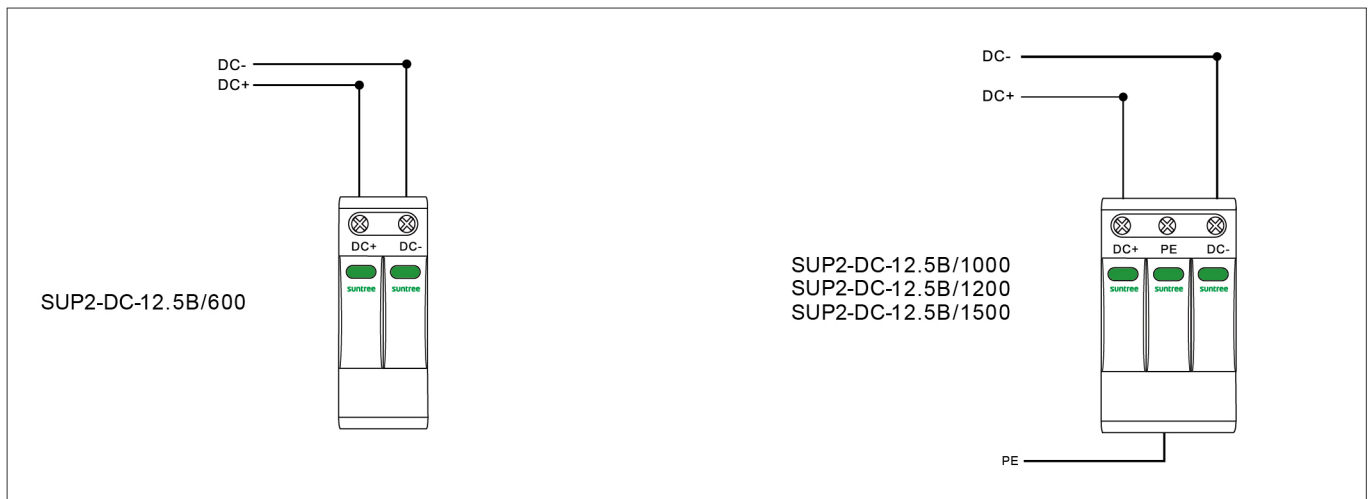
### IEC Electrical

|  |                                      |             |              |              |              |              |
|--|--------------------------------------|-------------|--------------|--------------|--------------|--------------|
| Maximum Continuous Operating DC Voltage    | (DC+) - PE, (DC-) - PE,(DC+) - (DC-) | $U_{CPV}$   | 600V         | 1000V        | 1200V        | 1500V        |
| Nominal Discharge Current (8/20 $\mu$ s)   |                                      | $I_n$       | 40kA         |              |              |              |
| Impulse Discharge Current (10/350 $\mu$ s) |                                      | $I_{imp}$   | 6.25kA       |              |              |              |
| Total Discharge Current (10/350 $\mu$ s)   |                                      | $I_{Total}$ | 12.5kA       |              |              |              |
| Total Discharge Current (8/20 $\mu$ s)     |                                      | $I_{Total}$ | 20kA         |              |              |              |
| Maximum Discharge Current (8/20 $\mu$ s)   |                                      | $I_{max}$   | 40kA         |              |              |              |
| Voltage Protection Level                   | (DC+) - PE, (DC-) - PE,(DC+) - (DC-) | $U_p$       | $\leq 2200V$ | $\leq 4000V$ | $\leq 4400V$ | $\leq 5200V$ |
| Response Time                              |                                      | $t_A$       | < 25 ns      |              |              |              |
| Short-Circuit Current Rating               |                                      | $I_{scPV}$  | 2000A        |              |              |              |
| Number of Ports                            |                                      |             | 1            |              |              |              |

### Mechanical & Environmental

|                                    |           |   |
|------------------------------------|-----------|---|
| Operating Temperature Range        | $T_a$     | -40 °F to +158 °F [-40 °C to +70 °C]  |
| Permissible Operating Humidity RH  | RH        | 5%...95%  |
| Atmospheric pressure and altitude  |           | 80k Pa ... 106k Pa / -500 m ... 2000 m  |
| Terminal Screw Torque Mmax         | $M_{max}$ | 39.9 lbf-in [4.5 Nm]  |
| Conductor Cross Section (max)      |           | 2 AWG (Solid, Stranded)/4 AWG (Flexible) 35mm <sup>2</sup> (Solid, Stranded)/25mm <sup>2</sup> (Flexible) |
| Mounting                           |           | 35 mm DIN Rail, EN 60715  |
| Degree of Protection               |           | IP20 (built-in)   |
| Housing Material                   |           | Thermoplastic: Extinguishing Degree UL 94 V-0   |
| Thermal Protection                 |           | Yes   |
| Operating State / Fault Indication |           | Green ok / Red defect   |
| Remote Contacts (RC)               |           | Option  |
| RC Switching Capacity              |           | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A   |
| RC Conductor Cross Section (max)   |           | 16 AWG (Solid)/1.5mm <sup>2</sup> (Solid)   |

## CONNECTION DIAGRAM



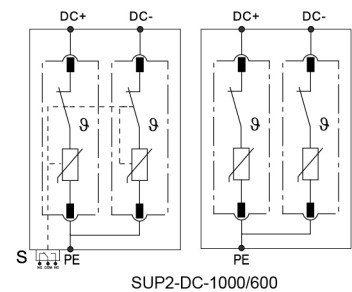
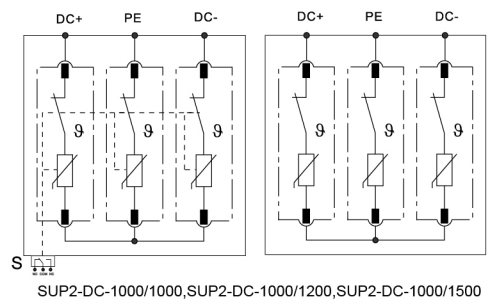
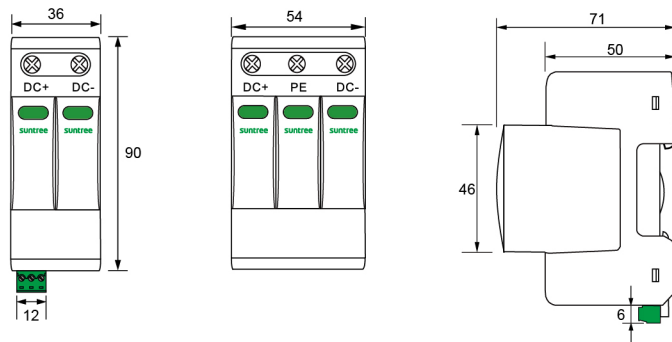
## MODEL AND SIGNIFICANCE

|                 |                        |               |   |                      |   |  |                 |   |                |
|-----------------|------------------------|---------------|---|----------------------|---|--|-----------------|---|----------------|
| <b>S</b>        | <b>UP</b>              | <b>2</b>      | - | <b>DC</b>            | / |  | <b>3</b>        | <b>1000</b>                                 | <b>X</b>       |
| Enterprise code | Surge protector device | Design Number |   | PV code DC dedicated |   | Maximum Discharge Current 40kA(T2) 7kA(T1) | Number of Poles | Rated Voltage 500VDC 800VDC 1000VDC 1500VDC | Remote sensing |

## CLASS II...TYPE 2

- LOCATION OF USE: STRING BOX, INVERTER
- MODE OF PROTECTION: (DC+) - PE, (DC-) - PE, (DC+) - (DC-)
- SURGE RATINGS: ITOTAL = 20 KA (10/350 MS) ITOTAL = 40 KA (8/20 MS)
- IEC/EN/UL CATEGORY: CLASS I+II / TYPE 2
- PROTECTIVE ELEMENTS: HIGH ENERGY MOV
- HOUSING: PLUGGABLE DESIGN
- COMPLIANCE: IEC 61643-31/EN 61643-31/UL 1449 4TH EDITION

## DIMENSIONS - INTERNAL CONFIGURATION



### LEGEND

- PE PROTECTIVE EARTH
- S SIGNALING CONTACTS (OPTION)



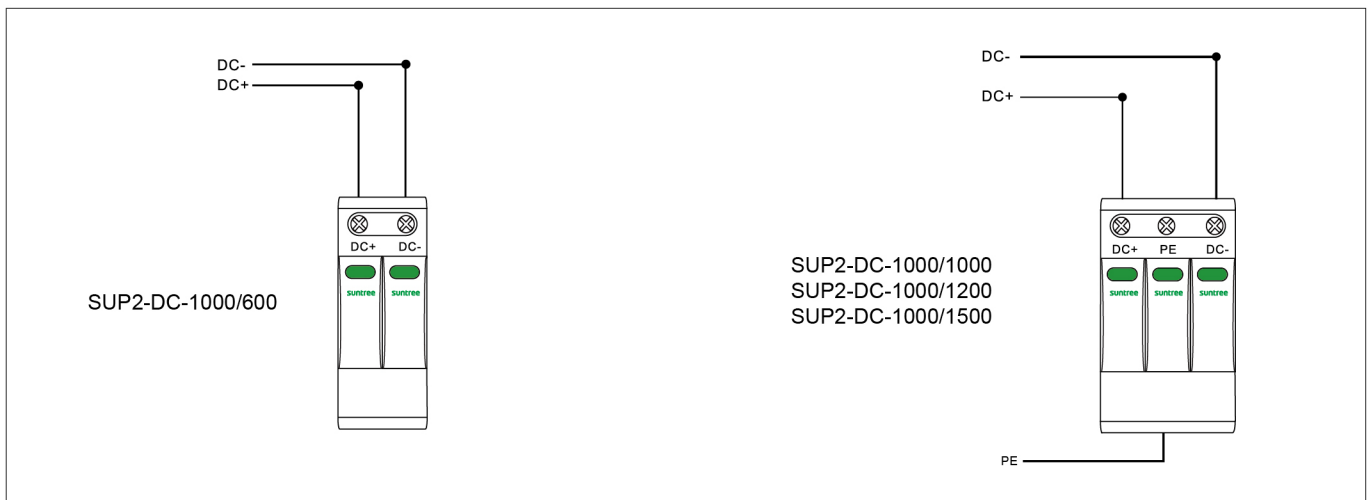
# PV MULTIPOLAR SURGE PROTECTOR

• SUP2-DC/1000VDC

## TECHNICAL DATA

| IEC Electrical                           |                                      |   |              |              |              |              |
|--|--------------------------------------|---|--------------|--------------|--------------|--------------|
| Maximum Continuous Operating DC Voltage  | (DC+) - PE, (DC-) - PE,(DC+) - (DC-) | $U_{CPV}$   | 600V         | 1000V        | 1200V        | 1500V        |
| Nominal Discharge Current (8/20 $\mu$ s) |                                      | $I_n$   | 20kA         |              |              |              |
| Total Discharge Current (10/350 $\mu$ s) |                                      | $I_{Total}$   | 40kA         |              |              |              |
| Maximum Discharge Current (8/20 $\mu$ s) |                                      | $I_{max}$   | 40kA         |              |              |              |
| Voltage Protection Level                 |                                      | $U_p$   | $\leq 2200V$ | $\leq 4000V$ | $\leq 4400V$ | $\leq 5200V$ |
| Response Time                            | (DC+) - PE, (DC-) - PE,(DC+) - (DC-) | $t_A$   | $< 25$ ns    |              |              |              |
| Short-Circuit Current Rating             |                                      | $I_{SCPV}$  | 2000A        |              |              |              |
| Number of Ports                          |                                      |   | 1            |              |              |              |
| Mechanical & Environmental               |                                      |   |              |              |              |              |
| Operating Temperature Range              | $T_a$                                | -40 °F to +158 °F [-40 °C to +70 °C]  |              |              |              |              |
| Permissible Operating Humidity RH        | RH                                   | 5%...95%  |              |              |              |              |
| Atmospheric pressure and altitude        |                                      | 80k Pa ... 106k Pa / -500 m ... 2000 m  |              |              |              |              |
| Terminal Screw Torque Mmax               | $M_{max}$                            | 39.9 lbf-in [4.5 Nm]  |              |              |              |              |
| Conductor Cross Section (max)            |                                      | 2 AWG (Solid, Stranded)/4 AWG (Flexible) 35mm <sup>2</sup> (Solid, Stranded)/25mm <sup>2</sup> (Flexible) |              |              |              |              |
| Mounting                                 |                                      | 35 mm DIN Rail, EN 60715  |              |              |              |              |
| Degree of Protection                     |                                      | IP20 (built-in)   |              |              |              |              |
| Housing Material                         |                                      | Thermoplastic: Extinguishing Degree UL 94 V-0   |              |              |              |              |
| Thermal Protection                       |                                      | Yes   |              |              |              |              |
| Operating State / Fault Indication       |                                      | Green ok / Red defect   |              |              |              |              |
| Remote Contacts (RC)                     |                                      | Option  |              |              |              |              |
| RC Switching Capacity                    |                                      | AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A   |              |              |              |              |
| RC Conductor Cross Section (max)         |                                      | 16 AWG (Solid)/1.5mm <sup>2</sup> (Solid)   |              |              |              |              |

## CONNECTION DIAGRAM





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