

**DATASHEET**

# Box with Multi-Pole SPD for Photovoltaic Systems

## ProTec T1 PV-3Y(-S)-2MC-Box

Class I • Class II • Type 1 • Type 2



Location of Use: Photovoltaic Systems  
 Mode of Protection: (+)-PE, (-)-PE, (+)-(-)  
 IEC/EN Category: Class I+II, Type 1+2  
 Housing: IP 67 Enclosure  
 Compliance: EN 61643-31:2019  
 IEC 61643-31:2018



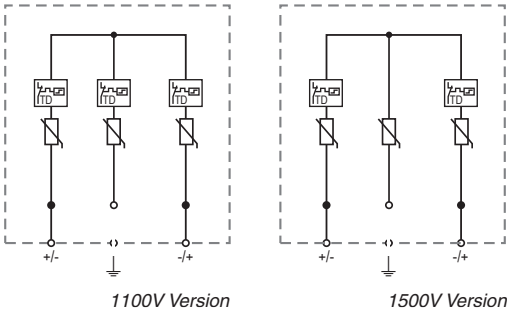
### Technical Data

| ProTec T1-xxxxPV-3Y(-S)-2MC-Box                 |                    | 1100                                 | 1500      |
|-------------------------------------------------|--------------------|--------------------------------------|-----------|
| EN Electrical                                   |                    |                                      |           |
| Maximum Continuous Operating Voltage (DC)       | U <sub>CPV</sub>   | 1100V                                | 1500V     |
| Nominal Discharge Current (8/20μs)              | I <sub>n</sub>     | 20 kA                                | 20 kA     |
| Total Discharge Current (8/20μs)                | I <sub>total</sub> | 50 kA                                | 50 kA     |
| Maximum Discharge Current (8/20μs)              | I <sub>max</sub>   | 40 kA                                | 50 kA     |
| Impulse Discharge Current (10/350μs)            | I <sub>imp</sub>   | 6.25 kA                              | 6.25 kA   |
| Total Discharge Current (10/350μs)              | I <sub>total</sub> | 12.5 kA                              | 12.5 kA   |
| Specific Energy                                 | W/R                | 9.77 kJ/Ω                            | 9.77 kJ/Ω |
| Charge                                          | Q                  | 3.125 As                             | 3.125 As  |
| Voltage Protection Level                        | U <sub>p</sub>     | < 4.4 kV                             | < 5.2 kV  |
| Rated Load Current                              | I <sub>L</sub>     | 35 A                                 | 35 A      |
| Response Time                                   | t <sub>A</sub>     | < 25 ns                              | < 25 ns   |
| Overvoltage Category                            |                    | III                                  | III       |
| Short Circuit Current Rating                    | I <sub>SCPV</sub>  | 11 kA                                | 30 kA     |
| Number of Strings per MPPT                      |                    | 1                                    |           |
| Mechanical & Environmental                      |                    |                                      |           |
| Temperature Range                               | T <sub>a</sub>     | -40 °F to +185 °F [-40 °C to +85 °C] |           |
| Permissible Humidity                            | RH                 | 5%...95%                             |           |
| Pollution Degree                                |                    | 2                                    |           |
| Altitude                                        |                    | 13123ft [4000m]                      |           |
| Type of Cable Entry                             |                    | Cable Gland / MC4 Connectors         |           |
| Wire Insulation Outer Diameter                  | (min)              | .15" [4 mm] (stranded, flexible)     |           |
|                                                 | (max)              | .31" [8 mm] (stranded, flexible)     |           |
| Conductor Cross Section Grounding [Cable Gland] | (min)              | 24 AWG [0.2mm²] (stranded, flexible) |           |
|                                                 | (max)              | 5 AWG [16mm²] (stranded, flexible)   |           |
| Degree of Protection                            |                    | IP 67                                |           |
| Thermal Protection                              |                    | Yes                                  |           |
| Operating State / Fault Indication              |                    | Green Flag / Not Green Flag          |           |
| Housing Material                                |                    | Polycarbonate with Semi-transparent  |           |
| Mounting                                        |                    | Wall - Indoor/Outdoor                |           |

Internal Configuration

Legend

- +/-, -/+ Terminal for +/-, -/+ Conductor
- Terminal for PE/G Conductor
- TD Thermal Disconnect

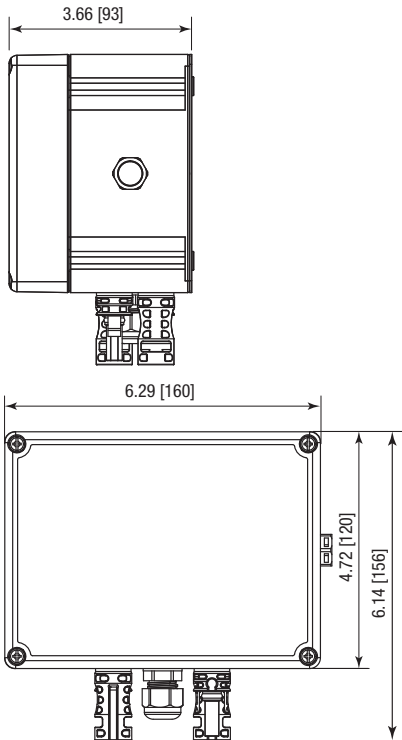


Order Information

| Order Code                    | 1100    | 1500    |
|-------------------------------|---------|---------|
| ProTec T1-xxxxPV-3Y-2MC-Box   | 515 657 | -       |
| ProTec T1-xxxxPV-3Y-S-2MC-Box | -       | 515 659 |

Dimensions & Packaging

inches [mm]



Complete Unit

ProTec T1-xxxxPV-3Y(-S)-2MC-Box

|                                  |                |                                       |             |
|----------------------------------|----------------|---------------------------------------|-------------|
| Single Unit Weight               | pounds [grams] | 2.01 [915]                            | 2.24 [1020] |
| Packaging Dimensions (H x W x L) |                | 4.1 x 6.9 x 7.8" [105 x 175 x 200 mm] |             |
| Minimum Package Quantity         |                | 1 Unit                                |             |