

# Box with Multi-Pole SPD for Photovoltaic Systems

## **ProTec T1 PV-5Y(-S)-(x)MC-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-5Y(-S)-(x)MC-Box

**1100**

**1500**

#### Electrical

Maximum Continuous Operating Voltage (DC)	$U_{OPV}$	1100V	1500V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	20 kA
Total Discharge Current (8/20 $\mu$ s)	$I_{total}$	50 kA	50 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	40 kA	50 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	6.25 kA	6.25 kA
Total Discharge Current (10/350 $\mu$ s)	$I_{total}$	12.5 kA	12.5 kA
Specific Energy	W/R	9.77 kJ/ $\Omega$	9.77 kJ/ $\Omega$
Charge	Q	3.125 As	3.125 As
Voltage Protection Level	$U_p$	< 4.4 kV	< 5.2 kV
Rated Load Current [2MC]	$I_L$	35 A	35 A
Response Time	$t_A$	< 25 ns	< 25 ns
Short Circuit Current Rating	$I_{SCPV}$	11 kA	30 kA
Number of Strings per MPPT			2

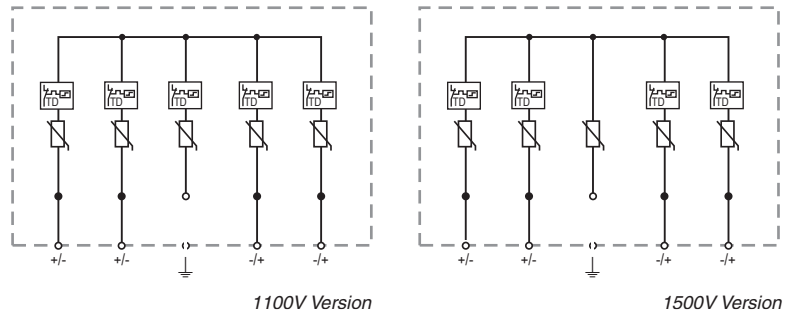
#### Mechanical & Environmental

Temperature Range	$T_a$	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Humidity	RH	5%...95%	
Altitude		13123 ft [4000 m]	
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 [0.2 mm <sup>2</sup> ] (stranded, flexible)	
	(max)	5 AWG [16 mm <sup>2</sup> ] (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



1100V Version

1500V Version

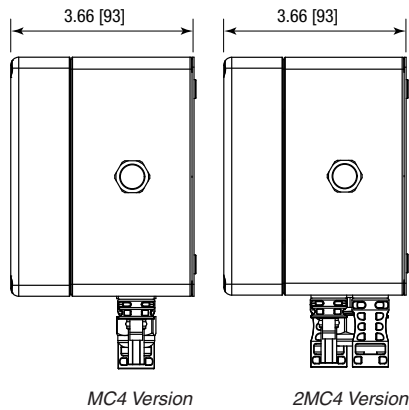
### ProTec T1-xxxxPV-5Y(-S)-(x)MC-Box

#### Order Information

Order Code	1100	1500
ProTec T1-xxxxPV-5Y-MC-Box	515 616	-
ProTec T1-xxxxPV-5Y-S-MC-Box	-	515 618
ProTec T1-xxxxPV-5Y-2MC-Box	515 658	-
ProTec T1-xxxxPV-5Y-S-2MC-Box	-	515 660

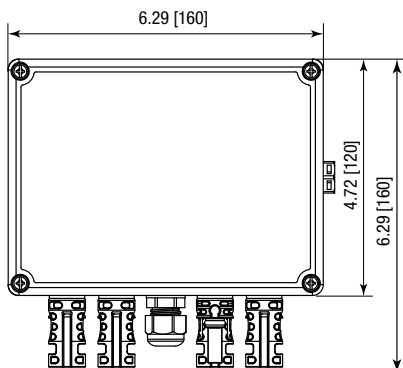
## Abmessungen & Verpackung

inches [mm]



MC4 Version

2MC4 Version



#### Complete Unit

ProTec T1-xxxxPV-5Y(-S)-MC-Box		1100	1500
Single Unit Weight	pounds [grams]	2.01 [915]	2.41 [1096]
ProTec T1-xxxxPV-5Y(-S)-2MC-Box			
Single Unit Weight	pounds [grams]	2.53 [1151]	2.93 [1332]
Packaging Dimensions (H x W x L)		4.06 x 6.29 x 7.87" [103 x 160 x 200 mm]	
Minimum Package Quantity		1 Unit	

Information contained in this document is subject to change at any time without notice.

