

DATA SHEET

Box with Multi-Pole SPD for Photovoltaic Systems
ProTec T1 PV-5Y(-S)(-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)(-MC)-Box

1100

1500

Electrical

Maximum Continuous Operating Voltage (DC)	U_{OPV}	1100V	1500V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA
Total Discharge Current (8/20 μ s)	I_{total}	50 kA	50 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	40 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	6.25 kA	6.25 kA
Total Discharge Current (10/350 μ s)	I_{total}	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_p	< 4.4 kV	< 5.2 kV
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	
Conductor Cross Section [Cable Gland]	(min)	13 AWG [2.5 mm ²] (stranded, flexible)	
	(max)	9 AWG [6 mm ²] (stranded, flexible)	
Conductor Cross Section Grounding [Cable Gland]	(min)	9 AWG [6 mm ²] (stranded, flexible)	
	(max)	5 AWG [16 mm ²] (stranded, flexible)	
Wire Insulation Outer Diameter [Cable Gland]	(min)	.15" [4 mm] (stranded, flexible)	
	(max)	.31" [8mm] (stranded, flexible)	
Degree of Protection		IP 67	
Thermal Protection		Yes	
Operating State / Fault Indication		Green Flag / Not Green Flag	
Housing Material		Polycarbonat with Semitransparent Cover	
Mounting		Outdoor Wall	

Order Information

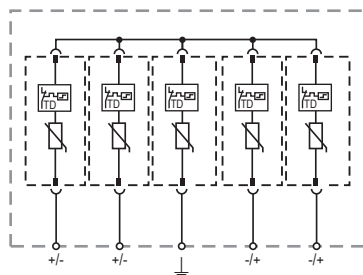
Order Code	1100	1500
ProTec T1-xxxxPV-5Y-Box	515 609	-
ProTec T1-xxxxPV-5Y-S-Box	-	515 613
ProTec T1-xxxxPV-5Y-MC-Box	515 616	-
ProTec T1-xxxxPV-5Y-S-MC-Box	-	515 618

ProTec T1 PV-5Y-L(-S)(-MC)-Box

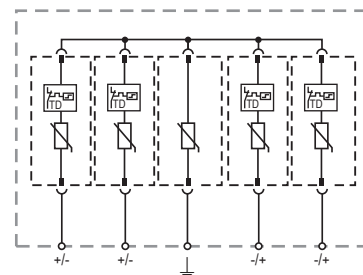
Internal Configuration

Legend

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

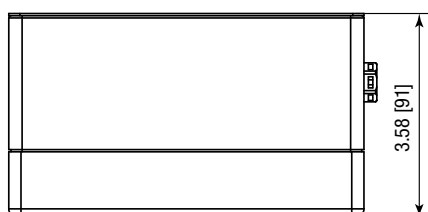
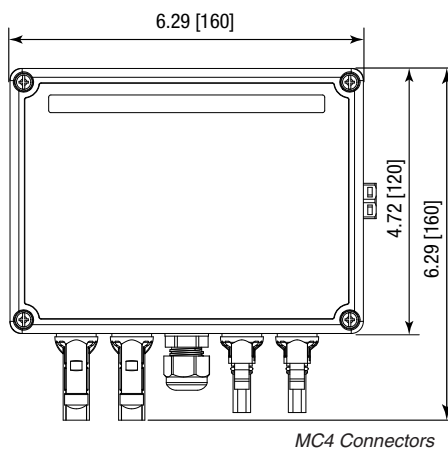
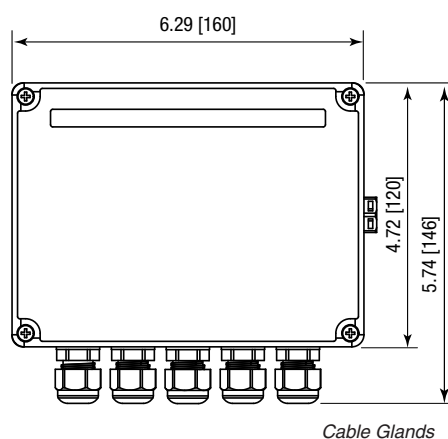


1100V Verison



1500V Verison

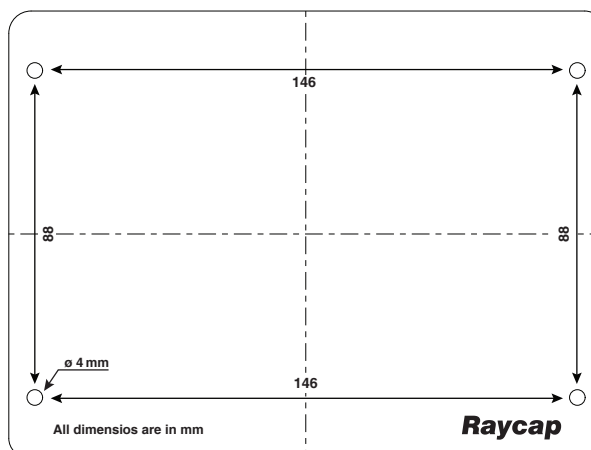
Dimensions & Packaging [mm]



Dimensions & Packaging

ProTec T1-xxxxPV-5Y(-S)-Box		1100	1500
Single Unit Weight		2.017 [915]	2.416 [1096]
ProTec T1-xxxxPV-5Y(-S)-MC-Box			
Single Unit Weight	pounds [grams]	2.222 [1008]	2.621 [1189]
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	

Drill Template [mm]



inches
[mm]

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

