

DATASHEET

Box with Multi-Pole SPD for Photovoltaic Systems

ProTec Box T1 7Y RG & 2MC4

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: Up to IP 67 Enclosure
 Compliance: EN 61643-31:2019
 IEC 61643-31:2018



Technical Data

ProTec Box T1-xxxxPV-7Y(-S)(-RG)(-2MC4)

1100
1500

EN 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 [Rubber Grommet]	U_p	4400V	5200V
Voltage Protection Level [Double MC Connector]	U_p	4400V	5200V
Rated Load Current [Rubber Grommet]	I_L	45 A	45 A
Response Time	t_A	< 25 ns	< 25 ns
Overvoltage Category		III	III
Short Circuit Current Rating	I_{SCPV}	11 kA	30 kA
Number of Strings per MPPT		3	

Mechanical & Environmental

Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Humidity	RH	5%...95%	
Pollution Degree		2	
Altitude		13123 ft [4000 m]	
Type of Cable Entry		Cable Gland / Rubber Grommet / MC4	
Wire Insulation Outer Diameter	(min)	.15" [4 mm] (stranded, flexible)	
	(max)	.31" [8 mm] (stranded, flexible)	
Conductor Cross Section [Cable Gland]	(min)	24 AWG [0.2 mm ²] (stranded, flexible)	
	(max)	5 AWG [16 mm ²] (stranded, flexible)	
2 Conductors with Same Cross Section and Twin Ferrule [Rubber Grommet]	(min)	20 AWG [0.5 mm ²] (stranded, flexible)	
	(max)	9 AWG [6 mm ²] (stranded, flexible)	
Degree of Protection [Double MC4 Connector / Rubber Grommet]		IP 67/ IP 65	
Thermal Protection		Yes	
Operating State / Fault Indication		Green Flag / Not Green Flag	
Housing Material		Polycarbonate with Semi-transparent	
Mounting		Wall - Indoor/Outdoor	

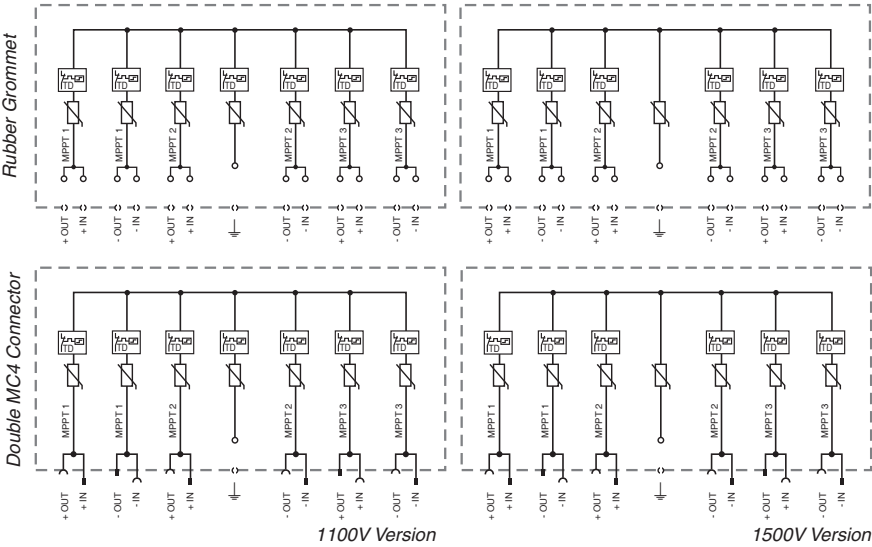
Internal Configuration

Legend

+/-, -/+ Terminal for +/-, -/+ Conductor

⏏ Terminal for PE/G Conductor

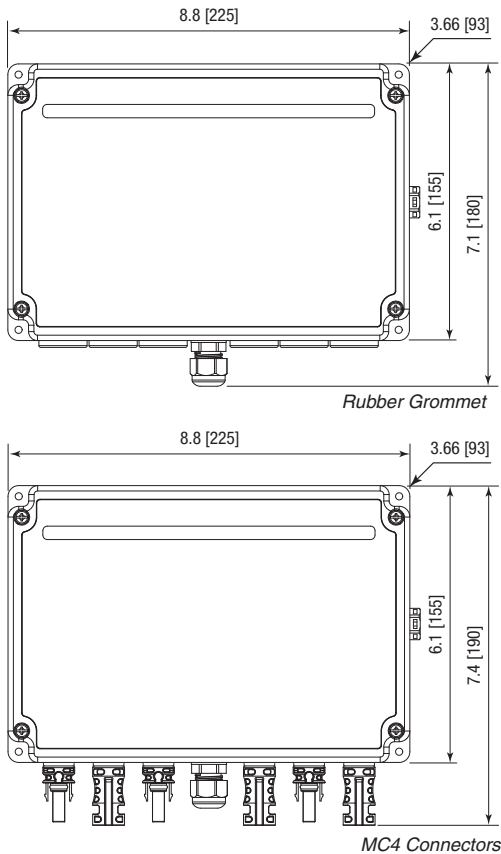
TD Thermal Disconnect



Order Information

Order Code	1100	1500
ProTec Box T1-xxxxPV-7Y-RG (Rubber Grommet)	515 863	-
ProTec Box T1-xxxxPV-7Y-S-RG (Rubber Grommet)	-	515 864
ProTec Box T1-xxxxPV-7Y-2MC4 (Double MC4 Connectors)	515 850	-
ProTec Box T1-xxxxPV-7Y-S-2MC4 (Double MC4 Connectors)	-	515 851

Dimensions & Packaging



Complete Unit

ProTec Box T1-xxxxPV-7Y(-S)(-RG)		1100	1500
Single Unit Weight	pounds [grams]	3.743 [1698]	4.361 [1978]
ProTec Box T1-xxxxPV-7Y(-S)(-2MC4)			
Single Unit Weight	pounds [grams]	3.699 [1678]	4.317 [1958]
Packaging Dimensions (H x W x L)		4.1 x 8.7 x 10.8" [105 x 220 x 275 mm]	
Minimum Package Quantity		1 Unit	