

Multi-Pole Base for Photovoltaic Systems

ProTec T1-PV-5Y-00(-R)

Class I • Class II • Type 1 • Type 2 • PV SPD Type 1CA



Location of Use: String box, Inverter
 Mode of Protection: (+)-PE, (-)-PE, (+)-(-)
 IEC/EN/UL Category: Class I+II/Type 1+2 / PV SPD Type 1CA
 Housing: Pluggable Design
 Compliance: IEC 61643-31:2018
 EN 61643-31:2019
 UL 1449 5th Edition

Technical Data

ProTec T1-xxxxPV-5Y-00(-R)

1100

EN Electrical

Maximum Continuous Operating Voltage (PV)	U_{CPV}	1100 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	5 kA
Specific Energy	W/R	6.25 kJ/ Ω
Charge	Q	2.5 As
Total Discharge Current (10/350 μ s)	I_{Total}	10 kA
Total Discharge Current (8/20 μ s)	I_{Total}	50 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	40 kA
Voltage Protection Level	(+/-)-PE U_p	3800 V
	(+)-(-) U_p	3800 V
Short-Circuit Current Rating	I_{SCPV}	11 kA
Number of Ports		1

UL Electrical

Maximum Permitted DC Voltage	V_{pVdc}	1100 V
Voltage Protection Level	(+/-)-PE VPR	2500 V
	(+)-(-) VPR	2500 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA
Short-Circuit Current Rating	SCCR	50 kA

Additional Electrical Parameters (Tests performed within Raycap testing laboratory only)

Residual Voltage at 5 kA (8/20 μ s)	U_{res}	3000 V
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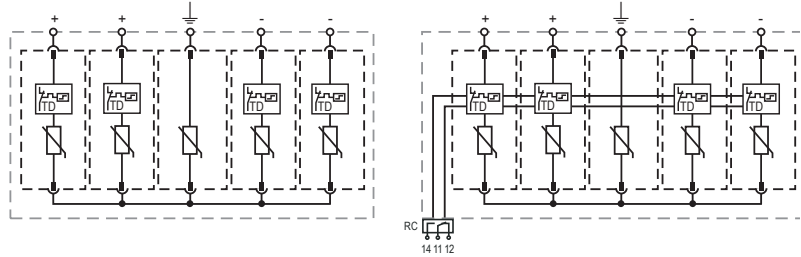
Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Altitude (max)		13123 ft [4000 m]
Terminal Screw Torque	M_{max}	40 lbf-in [4.5 Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)
Mounting		35 mm DIN Rail, EN 60715
Degree Of Protection		IP 20 (built-in)
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection		Yes
Operating State / Fault Indication		Green Flag / Not Green Flag
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/1A, 125V/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)

Internal Configuration

Legend

- +,- + or - Conductor Terminal
- ⏏ PE/G Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect



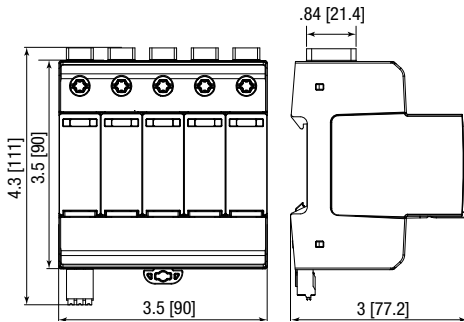
ProTec T1-xxxxPV-5Y-00(-R)

Order Information

Order Code	1100
ProTec T1-xxxxPV-5Y-00	59.A444
ProTec T1-xxxxPV-5Y-00-R (with remote contacts)	59.A445
ProTec T1-550PV-00-P (ground plug)	59.A446
ProTec T1-550PV-00M-P (side plugs)	59.A447

Dimensions & Packaging

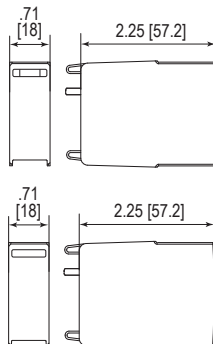
inches [mm]



Complete Unit

ProTec T1-xxxxPV-5Y-00		1100
Weight	pounds	1.536
	grams	697
ProTec T1-xxxxPV-5Y-00-R		1100
Weight	pounds	1.552
	grams	704
DIN 43880 Dimension	5 TE / 3.5" [90]	
Packaging Dimensions (H x W x L)	4.3 x 4.5 x 13.8" [109 x 115 x 352mm]	
Standard Order Quantity	3 Units	

Spare Plug



Single Unit

ProTec T1-550PV-00M-P		550
Single Unit Weight	pounds	.202
	grams	92
ProTec T1-550PV-00-P		550
Single Unit Weight	pounds	.182
	grams	83
Single Unit DIN 43880 Dimension	1 TE / .71 [18]	
Packaging Dimensions (H x W x L)	4.3 x 4.5 x 13.8" [109 x 116 x 352mm]	
Standard Order Quantity	24 Units	