

DATA SHEET

Pluggable Multi-Pole SPD for Photovoltaic Systems;

ProTec T1/T2-1100PV-9Y-R**Class I • Class II • Type 1 • Type 2 • Type 1CA PV SPD**

Location of Use: String box, Inverter
 Mode of Protection: (+) - PE, (-) - PE, (+) - (-)
 Surge Ratings: $I_{Total} = 50 \text{ kA}$ (8/20 μs)
 EN/UL Category: Class I,II / Type 1,2 / Type 1CA PV SPD
 Protective Elements: High Energy MOV
 Housing: Pluggable Design
 Compliance: EN 50539-11:2013 + A1:2014
 UL 1449, 4th edition

Technical Data**ProTec T1/T2-1100PV-9Y-R****EN Electrical**

Maximum Continuous Operating DC Voltage	U_{CPV}	1100 V
Nominal Discharge Current (8/20 μs)	I_n	20 kA
Total Discharge Current (8/20 μs)	I_{Total}	50 kA
Impulse Discharge Current (10/350 μs)	I_{imp}	6.25 kA
Specific Energy	W/R	9.77 kJ/ Ω
Charge	Q	3.125 As
Total Discharge Current (10/350 μs)	I_{Total}	12.5 kA
Voltage Protection Level	U_p	4400 V
Response Time	t_A	< 25 ns
Short-Circuit Current Rating	I_{SCPV}	11 kA
Number of Ports		1

UL Electrical

Maximum Permitted DC Voltage	V_{pVdc}	1100 V
Voltage Protection Rating	VPR	3000 V
Nominal Discharge Current (8/20 μs)	I_n	20 kA
Short-Circuit Current Rating	SCCR	50 kA

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 [4000m]
Terminal Screw Torque	M_{max}	39.9 lbf-in [4.5 Nm]
Conductor Cross Section (max)		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) 2 AWG (Solid, Stranded) / 4 AWG (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)		1.5 mm ² (Solid) 16 AWG (Solid)

Ordering Code

ProTec T2-1100PV-9Y-S01-B/R	580.268
ProTec T1/T2-1100PV-9Y-P	58.0322

AWG=American Wire Gauge

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

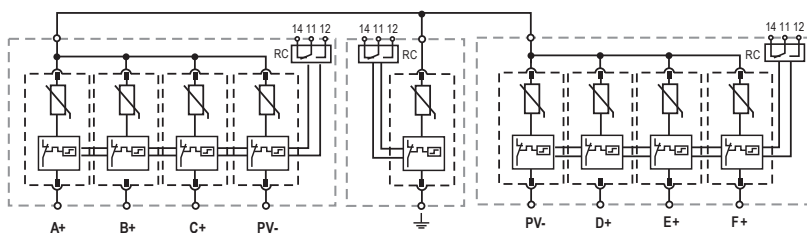
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ProTec T1/T2-1100PV-9Y-R

Internal Configuration

- Legend**
- (A+) - (F+) L+
 - PV- L-
 - ⊕ Ground
 - RC Remote Contacts Optional

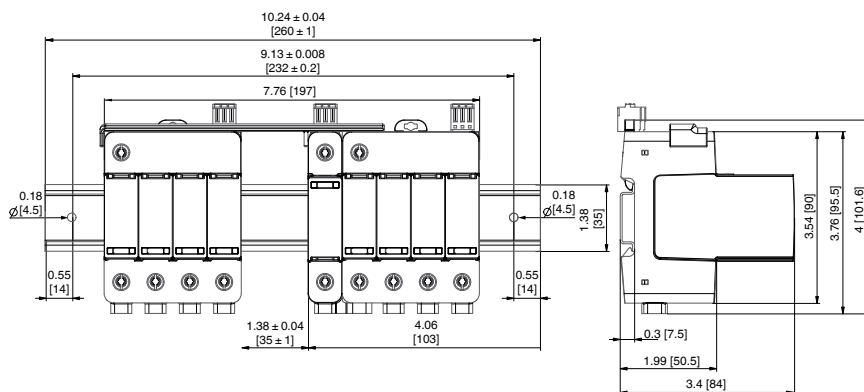


Dimensions & Weights

Weights

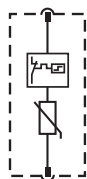
ProTec T1/T2-1100PV-9Y-R

Single Unit Weight	pounds	3.906
	grams	1772

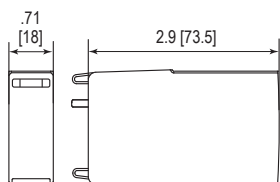


Plug Internal Configuration

ProTec T1-550PV-P ProTec T1-550PV-M-P



Dimensions & Weights



Weights

ProTec T1-550PV-P

Single Unit Weight	pounds	.280
	grams	127

ProTec T1-550PV-M-P

Single Unit Weight	pounds	.157
	grams	71

inches
[mm]

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