

**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 $\mu\text{s}$ )  
 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 $\mu\text{s}$ )	$I_n$	20 kA
Total Discharge Current (8/20 $\mu\text{s}$ )	$I_{Total}$	50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	6.25 kA
Specific Energy	W/R	9.77 kJ/ $\Omega$
Charge	Q	3.125 As
Total Discharge Current (10/350 $\mu\text{s}$ )	$I_{Total}$	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 $\mu\text{s}$ )	$I_n$	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 <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (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 <sup>2</sup> (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.

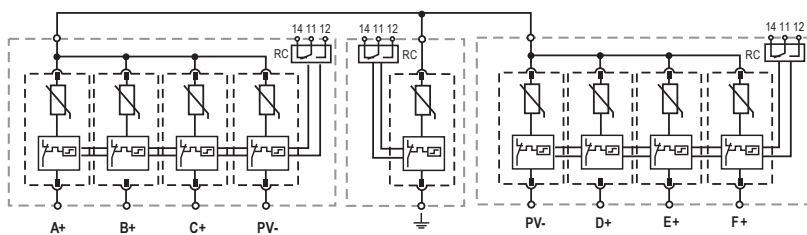
**Raycap**

www.raycap.com

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

## Internal Configuration

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

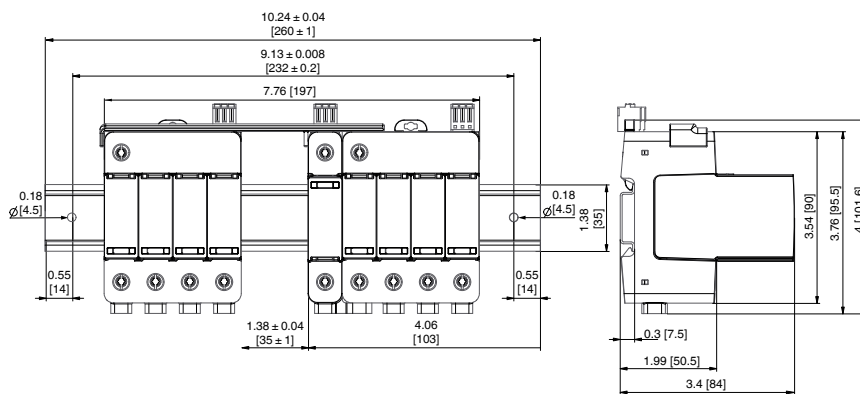


## Dimensions & Weights

### Weights

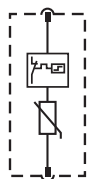
#### ProTec T1/T2-1100PV-9Y-R

Single Unit Weight	pounds	3.906
	grams	1772

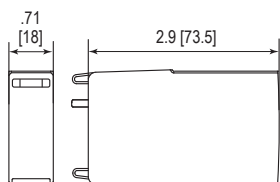


## Plug Internal Configuration

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



## Dimensions & Weights



### Weights

		ProTec T1-550PV-P	550
Single Unit Weight	pounds	.280	
	grams	127	
		ProTec T1-550PV-M-P	550
Single Unit Weight	pounds	.157	
	grams	71	

inches  
[mm]

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