

DC Modular Multi-pole SPD for Photovoltaic Systems

SafeTec C(R) 1000 PV (3+0) UL

Type 2 • Type 4 CA



Location of Use: Photovoltaic Systems – DC Side
Mode of Protection: (+) - PE, (-) - PE, (+) - (-)
Surge Ratings: $I_n = 20 \text{ kA (8/20}\mu\text{s)}$
 $I_{max} = 50 \text{ kA (8/20}\mu\text{s)}$
EN/UL Category: Type 2 / Type 4 CA
Protective Elements: High Energy MOV and GDT
Safety: Ground Fault Withstand
Housing: Modular Design
Compliance: UL 1449 4th Edition
 EN 50539-11:2013+A1:2014

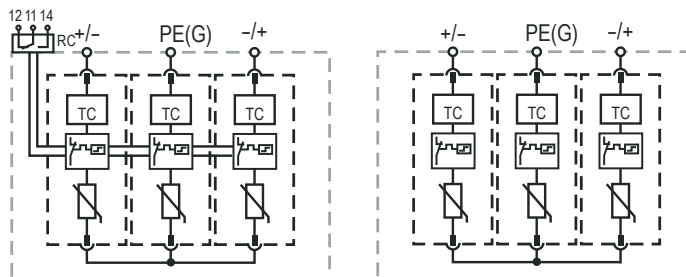
Technical Data

SafeTec C(R) 1000 PV (3+0)		1000
IEC Electrical		
Open Circuit Voltage	$U_{oc\ STC}$	830 V
Maximum Continuous Operating Voltage (DC)	U_{CPV}	1000V
Nominal Discharge Current (8/20 μs)	I_n	20 kA
Total Discharge Current (8/20 μs)	I_{total}	40 kA
Maximum Discharge Current (8/20 μs)	I_{max}	50 kA
Voltage Protection Level	(+) - (-) U_p	4.6 kV
	(+) / (-) - PE(G) U_p	4.6 kV
Short-Circuit Current Rating	I_{SCPV}	1000 A
Response Time	t_A	< 25 ns
Number of Ports		1
UL Electrical		
Maximum Continuous Operating Voltage (DC)	V_{PVDC}	1000V
Voltage Protection Rating	MLV	3980V
Nominal Discharge Current (8/20 μs)	I_n	20 kA
Mechanical & Environmental		
Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Humidity	RH	5%...95%
Terminal Screw Torque	M_{max}	26.5 lbf-in [3.0 Nm]
Conductor Cross Section (max)		35 mm ² (solid) / 25 mm ² (stranded)
Conductor Cross Section (max)		2 AWG (solid) / 4 AWG (stranded)
		35 mm DIN Rail, EN 60715
Degree of Protection		IP 20
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection		Yes
Fault Indication		Red Flag
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/0.5A; 125V/3A
RC Terminal Cross Section (max)		1.5 mm ²
		16 AWG
RC Terminal Screw Torque	M_{max}	2.2 lbf-in [0.25 Nm]
Order Information		
Order Code		1000
SAFETEC C xxxx PV (3+0)		516.A33
SAFETEC CR xxxx PV (3+0) (with remote contacts)		516.A38
Module SAFETEC C(R) xxxx PV (3+0)		516.A43

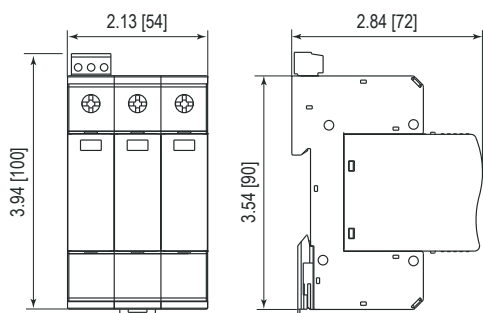
Internal Configuration

Legend

- G Ground
- PE Protective Earth
- RC Remote Contacts Optional
- TC Thermal Control Function



Dimensions & Packaging

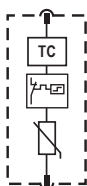


Dimensions & Packaging

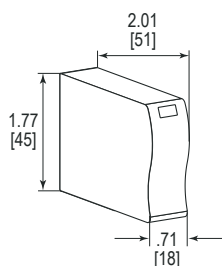
SafeTec C xxxx PV (3+0)		1000
Single Unit Weight	pounds [grams]	.873 [396]
SafeTec CR xxxx PV (3+0)		1000
Single Unit Weight	pounds [grams]	.886 [402]
Single Unit DIN 43880 Dimension		3 TE
Packaging Dimensions (H x W x L)		4.30" x 3.03" x 2.44" [109 x 77 x 62 mm]
Minimum Order Quantity		5 Units

Module Internal Configuration

Module SafeTec C(R) xxxx PV (3+0)



Dimensions & Packaging



Dimensions & Packaging

Module SafeTec C(R) xxxx PV (3+0)		1000
Single Unit Weight	pounds [grams]	.172 [78]
Packaging Dimensions (H x W x L)		3.86" x 3.03" x 4.33" [98 x 77 x 110 mm]
Minimum Order Quantity		12 Units

inches
[mm]

