

# PV SafeBloc B(R) 12.5 TCG

Type 1 • Type 2



Location of Use: Photovoltaic Systems - DC Side  
 Mode of Protection: (+)-PE, (-)-PE, (+)-(-)  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA (10/350 } \mu\text{s)}$   
 $I_n = 12.5 \text{ kA (8/20 } \mu\text{s)}$   
 EN Category: Type 1, 2  
 Protective Elements: High Energy MOV and GDT  
 Safety: Patented Current Limiting  
 Leakage Current: No Leakage Current  
 Housing: Compact Design  
 Compliance: EN 50539-11:2013

## Technical Data

PV SafeBloc B(R) 12.5/xxxx TCG

1000

### Electrical

Open Circuit Voltage	$U_{oc \text{ STC}}$	830V
Maximum Continuous Operating Voltage (DC)	$U_{CPV}$	1000V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	12.5 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	40 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	12.5 kA
Specific Energy	W/R	39 kJ/ $\Omega$
Charge	Q	6.25 As
Total Discharge Current	(8/20 $\mu\text{s}$ ) $I_{total}$	40 kA
	(10/350 $\mu\text{s}$ ) $I_{total}$	12.5 kA
Voltage Protection Level	(+)-(-) $U_p$	< 5.2 kV
	(+)/( )-PE $U_p$	< 2.6 kV
Short Circuit Current Rating	$I_{SCPV}$	1000 A
Response Time	$t_A$	< 25 ns
Number of Ports		1

### Mechanical & Environmental

Temperature Range	$T_a$	-40 °C to +85 °C
Permissible Humidity	RH	5%...95%
Terminal Screw Torque	$M_{max}$	3.0 Nm
Conductor Cross Section (max)		35 mm <sup>2</sup> (solid) / 25 mm <sup>2</sup> (stranded)
Mounting		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 <sup>2</sup>
RC Terminal Screw Torque	$M_{max}$	0.25 Nm

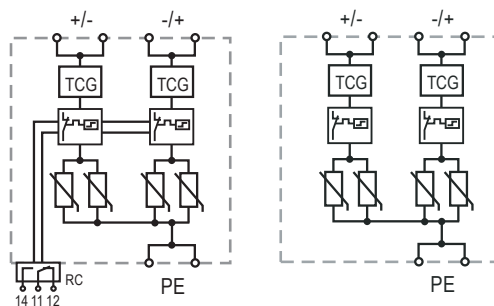
### Order Information

Order Code	1000
PV SAFELOC B 12.5/xxxx TCG	54.0578
PV SAFELOC BR 12.5/xxxx TCG (with remote contacts)	54.0579

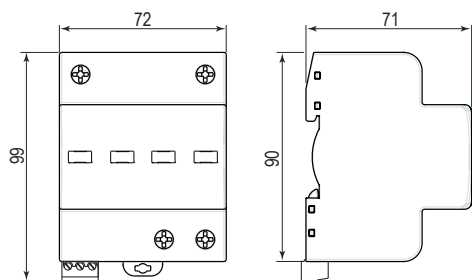
Internal Configuration

Legend

- PE Protective Earth
- RC Remote Contacts Optional
- TCG Thermal Control Function with No Leakage



Dimensions & Packaging [mm]



Dimensions & Packaging

<b>PV SafeBloc B12.5/xxxx TCG</b>	<b>1000</b>
Single Unit Weight	800 g
Single Unit DIN 43880 Dimension	4 TE
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm
Minimum Order Quantity	3 Units
<b>PV SafeBloc BR 12.5/xxxx TCG</b>	<b>1000</b>
Single Unit Weight	810 g
Single Unit DIN 43880 Dimension	4 TE
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm
Minimum Order Quantity	3 Units

Applicable connection configurations can be found on page 58.

