

DC Modular Multi-pole SPD for Photovoltaic Systems  
**PV ProTec B(R) 5/1000 Y TD**  
 Type 1 • Type 2



Location of Use: Photovoltaic System - DC Side  
 Mode of Protection: (+)-PE, (-)-PE, (+)-(-)  
 Surge Ratings:  $I_{imp} = 5 \text{ kA (10/350}\mu\text{s)}$   
 $I_n = 15 \text{ kA (8/20}\mu\text{s)}$   
 EN Category: Type 1, 2  
 Protective Elements: High Energy MOV  
 Housing: Modular Design  
 Compliance: EN 50539-11:2013 + A1:2014

**Technical Data**

**PV ProTec B(R) 5/xxxx Y TD**

**1000**

**Electrical**

Open Circuit Voltage	$U_{oc \text{ STC}}$	830V
Maximum Continuous Operating Voltage (DC)	$U_{CPV}$	1000V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	15 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	40 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	5 kA
Specific Energy	W/R	6.25 kJ/ $\Omega$
Charge	Q	2.5 As
Total Discharge Current	(8/20 $\mu\text{s}$ ) $I_{total}$	30 kA
	(10/350 $\mu\text{s}$ ) $I_{total}$	5 kA
Voltage Protection Level	(+)-(-) $U_p$	< 3.5 kV
	(+)/( )-PE $U_p$	< 3.5 kV
Short Circuit Current Rating	$I_{SCPV}$	1000 A
Response Time	$t_A$	< 25 ns
Number of Ports		1

**Mechanical**

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**

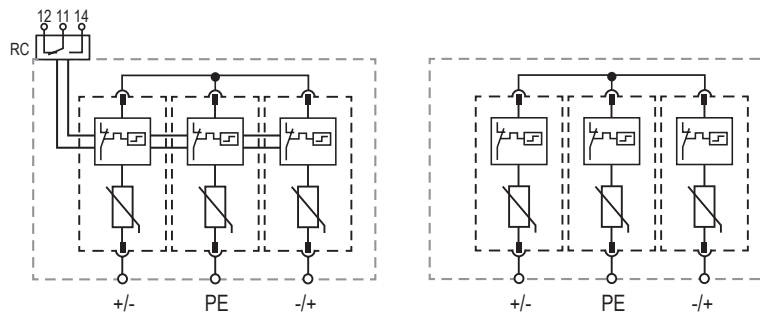
Order Code	<b>1000</b>
PV PROTEC B 5/xxxx Y TD	501.795
PV PROTEC BR 5/xxxx Y TD (with remote contacts)	501.796
Module PV PROTEC B 5/xxxx Y	501.797

## PV ProTec B(R) 5/1000 Y TD

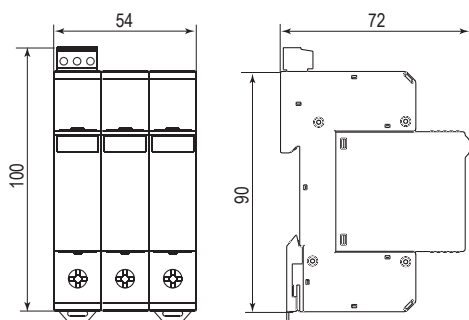
### Internal Configuration

#### Legend

- PE Protective Earth
- RC Remote Contacts Optional



### Dimensions & Packaging [mm]

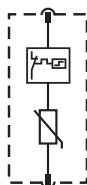


#### Dimensions & Packaging

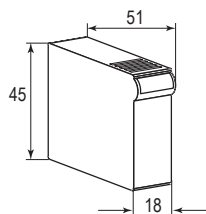
PV ProTec B 5/xxxx Y TD	
Quantity	1000
Single Unit Weight	398 g
Single Unit DIN 43880 Dimension	3 TE
Packaging Dimensions (H x W x L)	109 x 77 x 62 mm
Minimum Order Quantity	5 Units
PV ProTec BR 5/xxxx Y TD	
Quantity	1000
Single Unit Weight	403 g
Single Unit DIN 43880 Dimension	3 TE
Packaging Dimensions (H x W x L)	109 x 77 x 62 mm
Minimum Order Quantity	5 Units

### Module Internal Configuration

#### Module PV ProTec B 5/xxxx Y



### Dimensions & Packaging [mm]



#### Dimensions & Packaging

Module PV ProTec B 5/xxxx Y	
Quantity	1000
Single Unit Weight	58 g
Single Unit DIN 43880 Dimension	1 TE
Packaging Dimensions (H x W x L)	98 x 77 x 110 mm
Minimum Order Quantity	12 Units