

PRODUCT DATA SHEET

SURGE PROTECTIVE DEVICES (SPDs)

Code: 68 52 325
Ed.06/2022
Brand name: PVTron BOX5YT2
Application: Photovoltaic systems

Description

Three poles SPD especially designed for surge protection of (DC / AC) inverters which are widely used in photovoltaic applications. It is made out of varistor (MOV) elements and have successfully passed the requirements of standard IEC 61643 – 31 and it is classified as type 2, providing protection to electrical systems of insulation level, category III and category IV according to IEC 60364-4-44. It is suitable for direct installation exactly at the input terminals of the inverter just after the entrance of the DC current arriving from the photovoltaic panels. Its main advantage is that no back up fuse is required for up to 9 kA_{DC} expected short circuit current.



Protection type IEC 61643 – 31

- T2 / Class II

Technical characteristics

Number of poles	3
Connection between terminals	-ve ÷ +ve / -ve ÷ PE / +ve ÷ PE
Nominal operating voltage, U _{CPV}	Up to 1100 V DC
Maximum operating voltage, U _c	1100 V DC
Maximum operating current, I _L	35 A
Type of PV system	Not earthed / Earthed
Number of strings per MPPT	2 (5Y)
I _{max} , (8/20µs)	40 kA
I _n , (8/20µs)	20 kA
U _p	<4,2 kV
Response time, t _A	<25 ns
SPD failure mode	Open circuit failure mode (OCFM)
Maximum back up fuse	Not required for up to 9 kA _{DC} expected short circuit current
Short circuit withstand, I _{scpv}	9 kA
Monitoring indication	YES
Residual current, I _{PE}	<1 mA (AC) / <50 µA (DC)
Installation location	Outdoor / Indoor
Protection level of housing	IP65
Dimensions WxHxD (mm)	160x120x91 mm
Operating temperature	-40°C ÷ +85°C
Relative humidity	5% ÷ 95%
Installation	Wall
Maximum conductor for terminal	16 mm ² / 6 mm ² (in case of 2 conductors)
Conductor range for PE terminal	6 – 8 mm ²
Screws tightening torque	1,5 Nm
Housing material	Polycarbonate halogen free
Certification	CE
Conformity with	LVD 2014/35/EU
Installation only by qualified electrician	IEC 60417 – 6182

ELEMKO management systems

- ISO 9001
- ISO 14001
- ISO 45001

Country of origin

Greece

Unit: Piece / Package: 1 piece

We reserve the right to introduce changes in the component due to technical evolution