

PRODUCT DATA SHEET

SURGE PROTECTIVE DEVICES (SPDs)

Code: 68 52 317 (without remote contacts) / 68 52 318 (with remote contacts)

Ed. 03/2021

Brand Name: PVTron T1 1500 Y

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 European standard EN 50539 – 11 class I and II and it is classified as type 1, 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 30 kA_{DC} expected short circuit current.



Protection type EN 50539-11

- T1 / Class I

Technical characteristics

Number of Poles	3
Connection between terminals	-ve ÷ +ve / -ve ÷ PE / +ve ÷ PE
Nominal operating voltage, U _N	Up to 1500 V DC
Maximum operating voltage, U _C	1500 V DC
I _{imp} , "class I" test, (10/350µs), 1P /2P	6,25 kA / 12,5 kA
I _{max} , "class II" test, (8/20µs), 1P	40 kA
I _n , "class II" test, (8/20µs), 1P	20 kA
U _p , (at I _n)	<4,5 kV
Response time, t _A	<25 ns
Maximum back up fuse	Not required for up to 30 kA _{DC} expected short circuit current
Short circuit withstand, I _{sc}	30 kA
Thermal protection	YES
Residual current, I _{PE}	<100 µA
Monitoring indication	YES
Installation location	Indoor
Protection level of housing	IP20 (built in)
Dimensions WxHxD	54x95x87 mm
Operating temperature, ϑ	-40°C ÷ +80°C
Relative humidity	5% ÷ 95%
Maximum conductor for terminal	35 mm ²
Conductor terminals tightening torque	2,5 Nm
Maximum conductor for remote contacts	1,5 mm ²
Rail mounting	(only for ELEMKO code 68 52 318) DIN-3 (TS-35/EN50022)
Housing material	Polycarbonate halogen free
Certification	VDE, 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.