

PRODUCT DATA SHEET

SURGE PROTECTIVE DEVICES (SPDs)

Code: 68 25 112

Ed. 12/2021

Brand Name: TrigeTron T1 H 50 1+0
Application: 230/400 V AC electrical networks

Description

Single pole SPD T1 (class I), for connection between L–N & L–PEN, suitable for installation in TT, TN S, TN CS & TN C systems. It is equipped with 1 protection module of innovative design, which combines in series a heavy duty varistor (MOV) and a spark gap, thus providing high protection against temporary overvoltages (TOV) and limiting the leakage current between phase and neutral. Combined with a module containing spark gap for connection between N–PE it can be installed before the RCD, even in TT systems, providing optimum protection against temporary overvoltages (TOV) caused even by faults in medium voltage. It is capable to withstand high energy lightning currents up to 12,5 kA (10/350 μ s) per pole, 50 kA (10/350 μ s) per 4 poles, providing protection to structures with external lightning protection system of classes III & IV and to equipment supplied by overhead electrical network exposed to direct lightning strikes. Additionally it is providing protection against surge currents up to 65 kA (8/20 μ s). The residual voltage is less than 1,5kV (@ 20 kA) providing complete protection to equipment of all categories of insulation level (category IV up to category I) according to IEC 60364-4-44.



Protection type EN / IEC 61643–11

- T1 / Class I

Technical characteristics

Number of Poles	1
Connection between terminals	L – N, L – PEN
Installation in	TN S, TN CS, TN C, TT
Nominal operating voltage, U_N	230/400 V, 50 Hz
Maximum operating voltage, U_C	300 V, 50 Hz
I_{imp} , "class I" test, (10/350 μ s), 1P	12,5 kA
I_{max} , "class II" test, (8/20 μ s), 1P	65 kA
I_n , "class II" test, (8/20 μ s), 1P	20 kA
U_p , (at I_n)	<1,5 kV
Response time, t_a	<25 ns
Maximum back up fuse	<315 A gG
Short circuit withstand, I_{scsr}	25 kA / 50 Hz
Temporary Overvoltage (TOV), 120 min L–N	442 V withstand
Thermal protection	YES
Residual current, I_{PE}	<5 μ A
Monitoring indication	YES
Installation location	Indoor
Protection level of housing	IP20 (built in)
Dimensions WxHxD	17,5x106x87 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	DIN-3 (TS-35/EN50022)
Housing material	Polycarbonate halogen free
Combined equivalent protection as per TS 61643 – 12 & IEC 61643 – 12	T1 (CAT IV) + T2 (CAT II & CAT III) + T3 (CAT I)
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

Combined with

TrigeTron T1 H 50 NPE 0+1, ELEMKO code 68 25 050, connection between N–PE

Unit: piece / Package: 1 piece

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