

## PRODUCT DATA SHEET

### SURGE PROTECTIVE DEVICES (SPDs)

**Code: 68 44 491**

Ed. 03/2021

**Brand Name: Monoblock 12.5/T1 3+1**

**Application: 230/400 V AC electrical networks**

#### Description

Four poles SPD T1 (class I), in 3+1 wiring (3P + N) suitable for installation in TT, TN S & TN CS systems. It is equipped with 3 heavy duty varistors (protection between phases–neutral) and a spark gap (protection between neutral–protective earth). This wiring is preventing any leakage current to the earthing system, thus allowing its installation before the RCD, even in TT systems. Additionally it is especially designed to provide high protection against temporary overvoltages (TOV) caused even by medium voltage faults. It is capable to withstand high energy lightning currents up to 12,5 kA (10/350  $\mu$ s) per pole, 50 kA (10/350  $\mu$ 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. 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	4
Connection between terminals	L <sub>1</sub> – N, L <sub>2</sub> – N, L <sub>3</sub> – N & N – PE
Installation in	TN S, TN CS, TT
Nominal operating voltage, U <sub>N</sub>	230/400 V, 50 Hz
Maximum operating voltage, U <sub>C</sub>	320 V (L–N) / 255 V (N–PE), 50 Hz
I <sub>imp</sub> , "class I" test, (10/350 $\mu$ s), 1P	12,5 kA (L–N) / 50 kA (N–PE)
I <sub>max</sub> , "class II" test, (8/20 $\mu$ s), 1P	50 kA (L–N) / 50 kA (N–PE)
I <sub>n</sub> , "class II" test, (8/20 $\mu$ s), 1P	20 kA (L–N) / 20 kA (N–PE)
U <sub>p</sub> , (at I <sub>n</sub> )	<1,5 kV (L–N) / <1,5 kV (N–PE)
Response time, t <sub>A</sub>	<25 ns (L–N) / <100 ns (N–PE)
Maximum back up fuse	250 A gG
Short circuit withstand, I <sub>scrr</sub>	25 kA / 50 Hz
Follow current interrupt rating (N–PE), I <sub>fi</sub>	100 A rms
Temporary Overvoltage (TOV), 120 min L–N	440 V fail safe
Temporary Overvoltage (TOV), 5 s L–N	352 V withstand
Temporary Overvoltage (TOV), 200 ms N–PE	1200 V withstand
Thermal protection	YES
Residual current, I <sub>PE</sub>	<5 $\mu$ A
Monitoring indication	YES
Installation location	Indoor
Protection level of housing	IP20 (built in)
Dimensions WxHxD	72x99x71 mm
Operating temperature, $\vartheta$	-40°C ÷ +80°C
Relative humidity	5% ÷ 95%
Maximum conductor for terminal	35 mm <sup>2</sup>
Conductor terminals tightening torque	2,5 Nm
Remote contacts	NO
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	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.