

# PRODUCT DATA SHEET

## Surge Protective devices

### SPDs for power systems

**Code: 6850150-70**

**Description: SPD SurgeTron T2 H 1+0, code 6850150-70**

#### Description

Single pole SPD T2 (class II), 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 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 providing protection against surge currents up to 50 kA (8/20  $\mu$ s) per pole, 200 kA (8/20  $\mu$ s) per 4 poles. 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.



#### Technical characteristics

Protection type EN / IEC 61643-11	T2 (Class II)
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 (L-N), 50 Hz
$I_{max}$ , "class II" test, (8/20 $\mu$ s), 1P	50 kA
$I_n$ , "class II" test, (8/20 $\mu$ 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, $I_{sc}$	25 kA / 50 Hz

Temporary overvoltage (TOV) 120min L-N	442 V withstand
Thermal protection & monitoring indication	YES
Residual current, IPE	<5 µA
Installation location	indoor
Protection level of housing	IP20 (built in)
Dimensions WxHxD (mm)	17,5x106x70 mm
Operating temperature	-40 oC ÷ +80 oC
Relative humidity	5% ÷ 95%
Rail mounting	DIN-3 (TS-35/EN50022)
Housing material	Polycarbonate halogen free
Maximum conductor for terminal	35 mm <sup>2</sup>
Conductor terminals tightening torque	2,5 Nm
Maximum conductor for remote contacts	1,5 mm <sup>2</sup>
Combined equivalent protection as per TS 61643-12 & IEC 61643-12	T2 (CAT IV CAT III & CAT II) + 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