PRODUCT DATA SHEET

Surge Protective devices

SPDs for power systems

Code: 6832301-70

Description: SPD T1 M spec 300 1+1, code 6832301-70



Description

Two poles SPD T1 (class I), in 1+1 (P + N) wiring, suitable for installation in TT, TN S & TN CS systems. It is equipped with a heavy duty varistor (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 their installation before the RCD, even in TT systems. Additionally they are especially designed to provide high protection against temporary overvoltages (TOV) caused even by medium voltage faults. They are capable to withstand high energy lightning currents up to 12,5 kA (10/350 μs) per pole, 50 kA (10/350 μs) per 2 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.

Technical characteristics

Protection type EN / IEC 61643-11	T1 (Class I)
Number of poles	2
Connection between terminals	L–N, N–PE
Installation in	TN S, TN CS, TT
Nominal operating voltage, Un	230/400 V, 50 Hz
Maximum operating voltage, Uc	300 V (L–N) / 305 V (N–PE), 50 Hz
Iimp, “class I” test, (10/350μs), 1P	12,5 kA (L–N) / 50 kA (N–PE)
Imax, “class II” test, (8/20μs), 1P	50 kA (L–N) / 100 kA (N–PE)
In, “class II” test, (8/20μs), 1P	20 kA (L–N) / 50 kA (N–PE)
Up, (at In)	1,5 kV (L–N) / 1,5 kV (N–PE)
Responce time, ta	25 ns (L–N) / 100 ns (N–PE)
Maximum back up fuse	160 A gG

Short circuit withstand, Isccr	50 kA / 50 Hz
Follow current interrupt rating (N–PE), Ifi	100 A rms
Temporary overvoltage (TOV) 120min L-N	440 V fail safe
Temporary overvoltage (TOV) 5s L-N	335 V withstand
Temporary overvoltage (TOV) 200ms N-PE	1200 V withstand
Monitoring indication	YES
Residual current, IPE	5 µA
Installation location	indoor
Protection level of housing	IP20 (built in)
Dimensions WxHxD (mm)	36x90x78 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 mm2
Combined equivalent protection as per EN / IEC 61643-11	T1 (CAT IV) + T2 (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