

Lightning Current Arresters Limiting Follow-on Currents

- ⚡ SPD based on isolating spark gap technology
- ⚡ Lightning impulse current 25 kA (10/350 μ s)
- ⚡ Follow current extinguishing capability up to 17,5 kA eff (50 Hz)
- ⚡ No blow-out vents – no need for safety distances
- ⚡ Backup fuse up to 250 A
- ⚡ Protection level \leq 1 kV

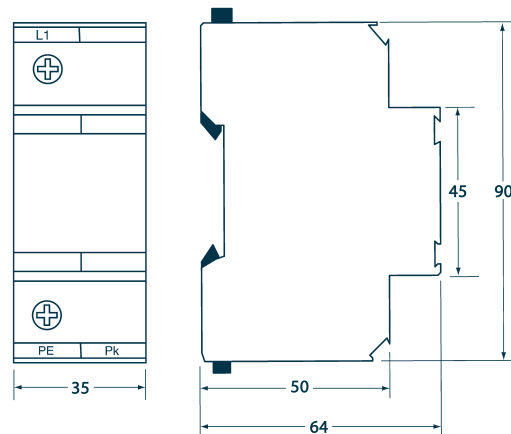


Product description

PowerPro-BCD-Tr is equipped with a newly developed, gas-filled isolating spark gap (inert gas). It has been designed in accordance with E DIN VDE 0675 part 6 (issued 11/89) and part 6/A1 (issued 3/96) as well as with IEC 61643-1 and is capable of discharging lightning surges of 25 kA (10/350 μ s) and of extinguishing short circuit current pulses of \leq 17.5 kA eff automatically. It has a protection level of \leq 1kV. These remarkable properties can be achieved by using a completely new construction element which does not need any safety devices as it

is hermetically sealed. Follow-on current measurements carried out at IPH Berlin show that there are absolutely no follow-on currents in the mains in more than 70 per cent of the cases (at $I_k=$ 17.5 kA eff). Any follow-on current detected (at $I_k=$ 17.5 kA eff) is effectively reduced by PowerPro-BCD-Tr to a level that a 35 A fuse will not be triggered. In practical terms, this means that users of PowerPro-BCD-Tr can be sure of a high degree of availability, low risk exposure and therefore a long service life of their systems.

Dimensions (mm)



Technical Data

- Application**
- Lightning SPD meeting protection categories B, C and D for lightning current equipotential bonding and equipment protection against line-induced overvoltages
 - Single-pole device

Type

PowerPro-BCD-Tr/25kA

Protection category/Tested acc. to E DIN VDE 0675-6-11/89-A1 and acc. to IEC 61643-1			B+C+D (Protection category I)
Nominal d.c. spark-over voltage	U_{agn}	[V=]	≥ 800
Rated voltage 50/60 Hz	U_N	[V~]	230/400
Max operating voltage 50/60 Hz	$U_{r,c}$	[V~]	255
Insulation resistance	Risol	[Ω]	$\geq 10^{10}$
Impulse spark-over voltage 1.2/50 μ s	U_{as}	[kV]	≤ 1.0
Protection level	U_p	[kV]	≤ 1.0
Response time	t_A	[ns]	≤ 50
Lightning impulse current 10/350 μ s	I_{peak}	[kA]	25
	Q	[As]	12,5
	W/R	[kJ/ Ω]	160
Extinguishing current (50 Hz) capability up to		[kAeff]	17,5 (IEC: 3.0)
Max. permissible line resp. backup fuse		[A]	250 A gL
Operating temperature range	T	[$^{\circ}$ C]	-40 ... +85
Max. connection wire cross-sectional area		[mm ²]	50 rigid or 35 stranded
Recommended connection wire		[mm ²]	50 rigid
Recommended connection torque		[Nm]	4.5
Housing cover / Colour			Polycarbonate (halogen-free) / yellow
Acc. to IEC 529 (1989) protection category			IP 20
Mounting			35 mm rail acc. to EN 50 022

Article number **37 38 50**

with potential-free contact

PowerPro-BCD-Tr/25kA/Pk

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