

-  **SPD based on isolating spark gap technology**
-  **Lightning current discharge capability 25 and 60 kA (10/350 μ s)**
-  **No blow-out vents – no need for safety distances**
-  **High insulation resistance $R_{isol} > 10^{10} \Omega$**
-  **Backup fuse up to 250 A**
-  **Snap-on housing for C profile**

Selective ($U_p \leq 4$ kV) Surge Protective Device

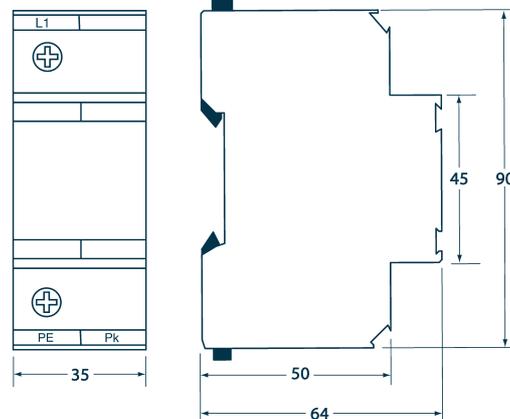
Product description

IsoPro230/400Tr is a selective, two-stage arrester. By using a hermetically sealed high performance isolating spark gap filled with inert gas, a high discharge capacity is reached without blow-vents. The patterns of both steps have been thoroughly adjusted, thus ensuring the triggering of the impulse current in the spark gaps, giving the device its proper function. The first step (valve surge protector) discharges impulse currents (up to 4 kA) without causing follow-on currents in the main. This makes sure that the installation within the building is not endangered by the transients whose energy level is often very low. The fuse will not be strained unnecessarily by follow-on currents through the SPD. Once the valve surge protector has responded, a voltage dependent on the impulse current will build up over the valve surge protector. As

soon as a certain level of impulse current is exceeded (up to 4 kA), this voltage drop will reach the spark-over voltage of the isolating spark gap which in turn will discharge the impulse current thus releasing the valve surge protector. The second step (i.e. the hermetically sealed high performance isolating spark gap filled with inert gas) will take over high energy transients from 4 kA up to 60 kA (10/350 μ s) which do not occur very often, but can happen following direct or very close lightning strikes. The protective circuit is built into an easy to handle snap-on housing designed for 35 mm DIN rail mounting (according to EN 50022) with multi-purpose terminals for wire and busbar connection. Optionally, a potential-free contact (with plug-connector in the housing) for remote warning indication is available.



Dimensions (mm)



IsoPro230/400Tr-25kA(/Pk) IsoPro230/400Tr-60kA(/Pk)

Technical Data

Applicaton ● Protection category B lightning SPD for equipotential bonding
● Single-pole device

Type		IsoPro230/400Tr/25kA	IsoPro230/400Tr/60kA
Protection category based on E DIN VDE 0675/6-A1 von 3/96 and Draft 11/89			B
Nominal d.c. spark-over voltage	U_{agn} [V=]		$900 \pm 20\%$
Rated voltage 50/60 Hz	U_N [V~]		230/400
Max. operating voltage 50/60 Hz	U_r [V~]		255
Insulation resistance	R_{isol} [Ω]		$\geq 10^{10}$
Impulse spark-over voltage 1.2/50 μ s	U_{as} [kV]		≤ 4.0
Protection level	U_p [kV]		≤ 4.0
Response time	t_a [ns]		≤ 50
Lightning impulse current 10/350 μ s	I_{peak} [kA]	25	60
	Q [As]	12,5	30
	W/R [kJ/ Ω]	160	900
Max. permissible line resp. backup fuse	[A]		160 A gL
Short circuit protection with max. 160 AgL fuse	[kA]		25
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 15	37 38 10
with potential-free contact		IsoPro230/400Tr-25kA/Pk	IsoPro230/400Tr-60kA/Pk
Article number		55 05 00	55 04 95

Diagrams

