






-  **Protection level < 2.5 kV**
-  **SPD based on isolating spark gap technology**
-  **No blow-out vents – no need for safety distances**
-  **Optional contact for remote warning indicator**
-  **Lightning current discharge capability 25 and 60 kA (10/350 μs)**

Selective ($U_p \leq 2.5 \text{ kV}$) Surge Protective Device

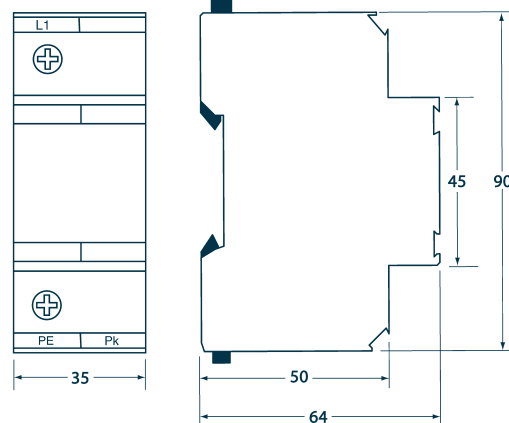
Product description

With its low protection level, IsoPro230/400Tr-F is a two-stage SPD meeting protection categories B and C in one and the same equipment. For cables up to 10 m long, this makes it possible to renounce on using the normally necessary decoupling elements (ImPro). By using a hermetically sealed high performance isolating spark gap filled with inert gas, it is possible to achieve a high discharge capacity without blow-vent. 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 in the main. Once the valve surge protector has responded, a residual 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 residual voltage will reach the sparkover 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 up to 60 kA (10/350 μs) 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-F(/Pk) IsoPro230/400Tr/60kA-F(/Pk)

Technical Data

Applicaton ● Protection categories B + C lightning SPD for equipotential bonding
● Single-pole device

| Type | | IsoPro230/400Tr/25kA-F | IsoPro230/400Tr/60kA-F |
|--|--|----------------------------------|---------------------------------------|
| Protection category based on E DIN VDE 0675, 6-11/89 and 6-A1-3/96 | | | B + C |
| 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 | $U_{r,c}$ [V~] | | 255 |
| Insulation resistance | R_{isol} [Ω] | | $\geq 10^{10}$ |
| Impulse spark-over voltage 1.2/50 μ s | U_{as} [kV] | | ≤ 2.5 |
| Protection level | U_p [kV] | | ≤ 2.5 |
| Response time | t_A [ns] | | ≤ 50 |
| Lightning impulse current 10/350 μ s ($\geq 10x$) | I_{peak} [kA] Q [As] W/R [kJ/ Ω] | 25 12,5 160 | 60 30 900 |
| 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 25 | 37 38 30 |
| with potential-free contact | | IsoPro230/400Tr/25kA-F/Pk | IsoPro230/400Tr/60kA-F/Pk |
| Article number | | 37 38 26 | 55 05 18 |

Diagrams

