

RSP-E12.5-31

4-pole lighting and surge arresters, $I_{imp}=12,5 \text{ kA/pole}$



- Surge arresters class I+II / type 1+2 per IEC/EN 61643-11 standard.
- Four poles SPD ("3+1" circuit) for use in three phase systems.
- 18 mm narrow model design, pluggable module for easy replacement without the need to remove system wiring.
- Unique thermal disconnecter design provides quick thermal response and secure disconnection.
- Lightning current capacity up to 12.5 kA 10/350 μs (L-N), 50 kA 10/350 μs (N-PE).
- Surge current capability up to 80 kA 8/20 μs (L-N), 100 kA 8/20 μs (N-PE).
- Low voltage protection level.
- High short-circuit current rating up to 50 kA $_{rms}$, suitable for application in most AC power systems.
- Degradation failure indication and optional remote signal contact.
- Wide operating temperature -40°C ~85°C.
- 35 mm DIN-rail mounting.

The 3PN50 is class I & class II (or T1+T2) prewired four poles SPD designed for low-voltage power system lightning current & surge protection, especially for location of high risk exposure or LPZ 0-2 building entrances (IEC 62305-4) to against the damage from direct or close lightning strikes.

With built in high energy MOV and GDT, 3PN50 ensures remarkable lightning current discharge capacity up to 12.5 kA 10/350 μs (L-N) and 50 kA 10/350 μs (N-PE). The unique design of thermal protection provides quick thermal response and secure disconnection. 3PN50 is ideal protection for environments with frequent switching operations or lightning strikes.

Electrical data

Number of poles		4 (3p+1)
Nominal voltage (50/60 Hz)	U_n	230 V AC
Max. continuous operating voltage 275 V AC / 255 V AC	U_c	L-N / N-PE 275 V AC/ 255 V AC
Nom. discharge current (8/20 μs)	I_n	L-N / N-PE 25 kA/ 50 kA
Max. discharge current (8/20 μs)	I_{max}	L-N / N-PE 80 kA/ 100 kA
Impulse discharge current (10/350 μs)	I_{imp}	L-N / N-PE 12,5 kA/ 50 kA
Voltage protection level	U_p	L-N / N-PE 1,2 kV/ 1,5 kV
Response time	t_A	L-N / N-PE $\leq 25 \text{ ns}$ / $\leq 100 \text{ ns}$
Backup fuse		$\leq 250 \text{ A gL/gG}$
Short-circuit current rating	I_{scCR}	50 kA $_{rms}$
Leakage current	I_{pe}	0,1 mA
TOV withstand (5 s)	U_T	L-N / N-PE 335 V / 5s 1200 V / 200 ms

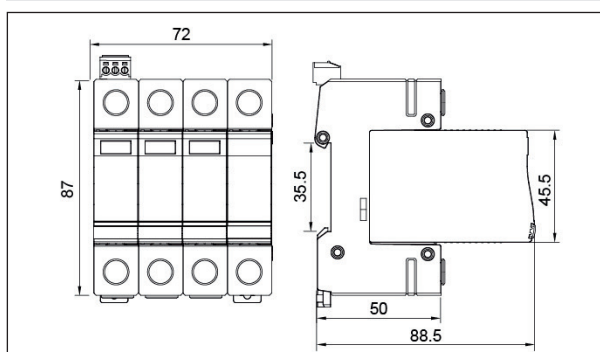
General data

Ambient temperature (operating)	T_a	-40...+85°C
Cross section of cables connected to terminals		35 mm 2 (single core) / 25 mm 2 (multi-core)
Terminal tightening moment		max. 4,5 Nm
Mounting		direct mounting on 35 mm rail mount (EN 60715)
Cover protection category		IP20 (built-iny, PN-EN 60529)
Cover material		thermoplastic; extinguishing degree V-0 (UL 94)
Dimensions (L x W x H) [mm]		87 x 72 x 88.5
Weight		1183 g

Remote fault signalisation

Type of contact		potential-free (isolated contact 1 CO)
Switching capability of contact		0,5 A / 250 V AC; 0,1 A / 250 V DC; 0,2 A / 125 V DC; 0,5 A / 75 V DC
Cross section of cables connected to terminals		1,5 mm 2 (wire single core)

Dimensions



Schematic Diagram

