

Type 2 surge arrester - VAL-SEC-T2-3S-350/40-FM - 2909635

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Pluggable surge protective device, in accordance with Type 2/Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. With 40 kA discharge capacity in accordance with the requirements of VDE 0100-534:2016-10 relating to SPDs at the system feed point.

Your advantages

- ✓ Fits in every meter cabinet, thanks to extremely narrow overall width and unfused insert up to 315 A
- ✓ Optimal protection of the main distribution and the subsequent installation via low voltage protection level
- ✓ Function monitoring using optical status indicator



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 378206 |
| GTIN | 4055626378206 |
| Weight per Piece (excluding packing) | 378.000 g |
| Weight per piece (including packing) | 402.800 g |
| Custom tariff number | 85363030 |
| Country of origin | Germany |
| Sales Key | K1 - Overvoltage Protect. |

Technical data

Dimensions

| | |
|------------------|---------------------------------|
| Height | 97.9 mm |
| Width | 49.2 mm |
| Depth | 74.5 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch | 2.7 Div. |

Ambient conditions

| | |
|---------------------------------|------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 80 °C |

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Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | ≤ 2000 m (amsl (above mean sea level)) |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z) |
| Vibration (operation) | 5g (10 ... 500 Hz / 2.5 h / X, Y, Z) |

General

| | |
|--|---|
| IEC test classification | II |
| | T2 |
| EN type | T2 |
| IEC power supply system | TN-S |
| | TT |
| Mode of protection | L-N |
| | L-PE |
| | N-PE |
| Mounting type | DIN rail: 35 mm |
| Color | light grey RAL 7035 |
| | traffic grey A RAL 7042 |
| Housing material | PA 6.6-FR 20% GF |
| | PBT-FR |
| Degree of pollution | 2 |
| Flammability rating according to UL 94 | V-0 |
| Type | DIN rail module, two-section, divisible |
| Number of positions | 4 |
| Surge protection fault message | Optical, remote indicator contact |

Protective circuit

| | |
|--|--|
| Nominal voltage U_N | 240/415 V AC (TN-S) |
| | 240/415 V AC (TT) |
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Maximum continuous operating voltage U_C (L-N) | 350 V AC |
| Maximum continuous operating voltage U_C (L-PE) | 350 V AC |
| Maximum continuous voltage U_C (N-PE) | 264 V AC |
| Rated load current I_L | 40 A (Biconnect M4 fork-type cable lug 6 mm ²) |
| | 63 A (TWIN ferrule 2 x 10 mm ²) |
| Residual current I_{PE} | ≤ 1 µA |
| Nominal discharge current I_n (8/20) µs (L-N) | 20 kA |
| Nominal discharge current I_n (8/20) µs (L-PE) | 20 kA |
| Nominal discharge current I_n (8/20) µs (N-PE) | 40 kA |
| Maximum discharge current I_{max} (8/20) µs (L-N) | 40 kA |
| Maximum discharge current I_{max} (8/20) µs (L-PE) | 40 kA |

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Protective circuit

| | |
|---|--|
| Maximum discharge current I_{max} (8/20) μ s (N-PE) | 80 kA |
| Follow current interrupt rating I_{fi} (N-PE) | 100 A (264 V AC) |
| Short-circuit current rating I_{SCCR} | 25 kA (in case of 315 A gG backup fuse) |
| | 50 kA (in case of 200 A gG backup fuse) |
| Voltage protection level U_p (L-N) | ≤ 1.5 kV |
| Voltage protection level U_p (L-PE) | ≤ 1.9 kV |
| Voltage protection level U_p (N-PE) | ≤ 1.5 kV |
| Residual voltage U_{res} (L-N) | ≤ 1.5 kV (at I_n) |
| | ≤ 1.3 kV (at 10 kA) |
| | ≤ 1.2 kV (at 5 kA) |
| | ≤ 1.1 kV (at 4 kA) |
| | ≤ 1 kV (at 2 kA) |
| Residual voltage U_{res} (N-PE) | ≤ 0.7 kV (at I_n) |
| | ≤ 0.7 kV (at 20 kA) |
| | ≤ 0.7 kV (at 8 kA) |
| | ≤ 0.7 kV (at 4 kA) |
| TOV behavior at U_T (L-N) | 415 V AC (5 s / withstand mode) |
| | 457 V AC (120 min / safe failure mode) |
| TOV behavior at U_T (N-PE) | 1200 V AC (200 ms / withstand mode) |
| Response time t_A (L-N) | ≤ 25 ns |
| Response time t_A (L-PE) | ≤ 100 ns |
| Response time t_A (N-PE) | ≤ 100 ns |
| Max. backup fuse with V-type through wiring | 40 A (gG / Biconnect M4 fork-type cable lug, 6 mm ²) |
| | 63 A (gG / TWIN ferrule 2x 10mm ²) |
| Max. backup fuse with branch wiring | 315 A (gG) |

Indicator/remote signaling

| | |
|----------------------------------|--|
| Switching function | PDT contact |
| Operating voltage | 5 V AC ... 250 V AC |
| | 125 V DC (200 mA DC) |
| Operating current | 5 mA AC ... 1 A AC |
| | 1 A DC (30 V DC) |
| Connection method | Plug-in/screw connection via COMBICON |
| Screw thread | M2 |
| Tightening torque | 0.25 Nm |
| Stripping length | 7 mm |
| Conductor cross section flexible | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section solid | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 28 ... 16 |

Connection data

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Connection data

| | |
|----------------------------------|--|
| Connection method | Screw connection |
| Screw thread | M5 |
| Tightening torque | 4.5 Nm |
| Stripping length | 16 mm |
| Conductor cross section flexible | 2.5 mm ² ... 16 mm ² |
| Conductor cross section solid | 2.5 mm ² ... 25 mm ² |
| Conductor cross section AWG | 12 ... 4 |
| Connection method | Fork-type cable lug |
| Conductor cross section flexible | 1.5 mm ² ... 6 mm ² |

Standards and Regulations

| | |
|-----------------------|-------------------|
| Standards/regulations | IEC 61643-11 2011 |
| | EN 61643-11 2012 |

Environmental Product Compliance

| | |
|------------|---|
| | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |