

Type 2 surge arrester - VAL-CP-3C-175 - 2859466

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Plug-in surge arrester for 3-phase power supply networks with N and PE in a common conductor (4-conductor system: L1, L2, L3, PEN), with remote indication contact.

Why buy this product

- ✓ With or without floating remote indication contact
- ✓ Plugs can be checked with CHECKMASTER
- ✓ High continuous voltage of 175 V AC for 120/208 V AC networks with high voltage fluctuations
- ✓ Mechanical coding of all slots
- ✓ Optical, mechanical status indication for the individual arresters
- ✓ Type 2 consistent plug-in surge arresters
- ✓ Disconnect device on each individual plug
- ✓ Use of varistors with a low leakage current
- ✓ Modular arrester blocks with ultra-narrow design



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 STK |
| GTIN |  4 046356 045469 |
| GTIN | 4046356045469 |

Technical data

Dimensions

| | |
|------------------|----------|
| Height | 98 mm |
| Width | 37.25 mm |
| Depth | 71.5 mm |
| Horizontal pitch | 2 Div. |

Ambient conditions

| | |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

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Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 80 °C |
| 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-C |
| Mode of protection | L-PEN |
| Mounting type | DIN rail: 35 mm |
| Color | gray/blue |
| | black |
| Housing material | PBT-FR |
| Degree of pollution | 2 |
| Flammability rating according to UL 94 | V-0 |
| Type | DIN rail module, two-section, divisible |
| Number of positions | 3 |
| Surge protection fault message | Optical, remote indicator contact |

Protective circuit

| | |
|--|--|
| Nominal voltage U_N | 120/208 V AC (TN-C) |
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Maximum continuous operating voltage U_C (L-PEN) | 175 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) |
| Nominal discharge current I_n (8/20) μ s (L-PEN) | 20 kA |
| Maximum discharge current I_{max} (8/20) μ s (L-PEN) | 40 kA |
| Short-circuit current rating I_{SCCR} | 25 kA |
| Voltage protection level U_p (L-PEN) | ≤ 0.85 kV |
| Residual voltage U_{res} (L-PEN) | ≤ 0.85 kV (at I_n) |
| | ≤ 0.75 kV (at 10 kA) |
| | ≤ 0.65 kV (at 5 kA) |
| | ≤ 0.63 kV (at 4 kA) |
| | ≤ 0.57 kV (at 2 kA) |
| TOV behavior at U_T (L-PEN) | 240 V AC (5 s / withstand mode) |
| | 240 V AC (120 min / safe failure mode) |
| Response time t_A (L-PEN) | ≤ 25 ns |

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Protective circuit

| | |
|---|--|
| 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 | Pluggable screw connection |
| 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

| | |
|----------------------------------|--|
| 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 |

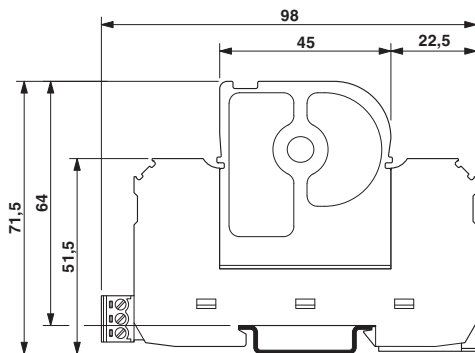
UL specifications

| | |
|---|--------------|
| SPD Type | 4CA |
| Maximum continuous operating voltage MCOV (L-L) | 350 V AC |
| Maximum continuous operating voltage MCOV (L-N) | 175 V AC |
| Nom. voltage | 120/208 V AC |
| Mode of protection | L-L |
| | L-N |
| Power distribution system | 3Y |
| Nominal frequency | 50/60 Hz |
| Measured limiting voltage MLV (L-L) | 2010 V |
| Measured limiting voltage MLV (L-N) | 1510 V |
| Nominal discharge current I _n (L-L) | 20 kA |
| Nominal discharge current I _n (L-N) | 20 kA |

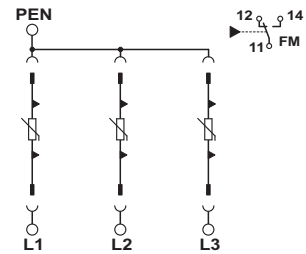
Drawings

Type 2 surge arrester - VAL-CP-3C-175 - 2859466

Dimensional drawing



Circuit diagram



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