

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Plug-in surge arrester, in accordance with Type 2/Class II, for 1-phase power supply networks with separate N and PE (3-conductor system: L1, N, PE).

Your advantages

- Easy and safe installation with forward-thinking handling and safety features
- Reliable system protection with maximum performance and endurance
- Can be used in a wide range of applications due to the optimized design and broad portfolio
- Simple planning due to comprehensive digital data and selectors

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1466607 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL18 |
| Product key | CL1381 |
| GTIN | 4063151860578 |
| Weight per piece (including packing) | 258.9 g |
| Weight per piece (excluding packing) | 233.9 g |
| Customs tariff number | 85363030 |
| Country of origin | DE |

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

Technical data

Notes

General

| | |
|------|--|
| Note | For pollution degree 3 and wiring with fork cable lugs, an additional minimum lateral distance of 1 mm to earthed conductive surfaces must be maintained for cross-sections $\geq 16 \text{ mm}^2$. No additional lateral distances are required for pollution degree 2. |
|------|--|

Product properties

| | |
|--------------------------------|---|
| Product type | Surge arrester |
| Product family | VAL-SPP |
| IEC test classification | II T2 |
| EN type | T2 |
| IEC power supply system | TN-S TT |
| Type | DIN rail module, two-section, divisible |
| Number of positions | 2 |
| End-of-life mode | OCM |
| Surge protection fault message | optical |
| Number of ports | One |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 3 |

Electrical properties

| | |
|-------------------------|---------------|
| Nominal frequency f_N | 50 Hz (60 Hz) |
|-------------------------|---------------|

Connection data

| | |
|---|--|
| Connection method | Screw connection |
| Screw thread | M5 |
| Tightening torque | 3 Nm ... 3.5 Nm |
| Stripping length | 18 mm |
| Conductor cross-section flexible | 1.5 mm ² ... 35 mm ² (without ferrule) 2x 1.5 mm ² ... 16 mm ² (2 conductors with the same cross-section) |
| Conductor cross-section rigid | 1.5 mm ² ... 50 mm ² 2x 1.5 mm ² ... 16 mm ² (2 conductors with the same cross-section) |
| Conductor cross-section AWG | 15 ... 2 |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 1.5 mm ² ... 16 mm ² |

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

| | |
|---|--|
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 1.5 mm ² ... 35 mm ² |
| | 2x 1.5 mm ² ... 10 mm ² (2 conductors with the same cross-section) |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 1.5 mm ² ... 25 mm ² |
| | 2x 1.5 mm ² ... 16 mm ² (2 conductors with the same cross-section) |
| Connection method | Fork-type cable lug |
| Conductor cross-section flexible | 1.5 mm ² ... 25 mm ² |

Dimensions

| | |
|---------------------|---------------------------------|
| Dimensional drawing | |
| Width | 35.6 mm |
| Height | 96.6 mm |
| Depth | 71.5 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch | 2 Div. |

Material specifications

| | |
|--|-----------------------|
| Color | gray (RAL 7042) |
| | light gray (RAL 7035) |
| Flammability rating according to UL 94 | V-0 |
| CTI value of material | 600 |
| Insulating material | PA 6.6-FR 20 % GF |
| | PBT |
| Material group | I |
| Housing material | PA 6.6-FR 20 % GF |
| | PBT |

Protective circuit

| | |
|---|--------------------------------|
| Mode of protection | L-N |
| | L-PE |
| | N-PE |
| Nominal voltage U_N | 240/415 V AC $\pm 10\%$ (TN-S) |
| | 240/415 V AC $\pm 10\%$ (TT) |
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Maximum continuous operating voltage U_C (L-N) | 385 V AC |
| Maximum continuous operating voltage U_C (L-PE) | 385 V AC |
| Maximum continuous operating voltage U_C (N-PE) | 305 V AC |
| Rated load current I_L | 80 A (25 mm ²) |
| Protective conductor current I_{PE} | $\leq 5 \mu A$ |
| Standby power consumption P_C | ≤ 175 mVA |
| Nominal discharge current I_n (8/20) μs | 20 kA |

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

| | |
|--|--|
| Maximum discharge current I_{max} (8/20) μ s | 40 kA |
| Total discharge current I_{Total} (8/20) μ s | 40 kA |
| Follow current interrupt rating I_{fi} (N-PE) | 100 A |
| Short-circuit current rating I_{SCCR} | 50 kA |
| Voltage protection level U_p (L-N) | ≤ 1.8 kV |
| Voltage protection level U_p (L-PE) | ≤ 2 kV |
| Voltage protection level U_p (N-PE) | ≤ 1.5 kV |
| Residual voltage U_{res} (L-N) | ≤ 1.8 kV (at I_n) |
| | ≤ 1.6 kV (at 10 kA) |
| | ≤ 1.4 kV (at 5 kA) |
| | ≤ 1.3 kV (at 3 kA) |
| Residual voltage U_{res} (L-PE) | ≤ 2 kV (at I_n) |
| | ≤ 1.7 kV (at 10 kA) |
| | ≤ 1.5 kV (at 5 kA) |
| | ≤ 1.4 kV (at 3 kA) |
| Residual voltage U_{res} (N-PE) | ≤ 0.5 kV (at I_n) |
| | ≤ 0.4 kV (at 10 kA) |
| | ≤ 0.3 kV (at 5 kA) |
| | ≤ 0.1 kV (at 3 kA) |
| TOV behavior at U_T (L-N) | 415 V AC (5 s / withstand mode) |
| | 460 V AC (120 min / safe failure mode) |
| TOV behavior at U_T (L-PE) | 1464 V AC (200 ms/withstand 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 | 80 A (gG) |
| Max. backup fuse with branch wiring | 315 A (gG) |

Additional technical data

| | |
|---|--------|
| Short-circuit current rating I_{SCCR} | 100 kA |
|---|--------|

Environmental and real-life conditions

Ambient conditions

| | |
|---|--|
| Degree of protection | IP20C (Installed) |
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Ambient temperature (assembly) | -5 °C ... 50 °C |
| Altitude | ≤ 5000 m (amsl) |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 25g (Half-sine / 11 ms / 3x \pm X, \pm Y, \pm Z) |
| Vibration (operation) | 5g (10 ... 500 Hz / 2.5 h / X, Y, Z) |

Approvals

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

UL specifications

| | |
|---|--------------|
| Maximum continuous operating voltage MCOV (L-N) | 385 V AC |
| Maximum continuous operating voltage MCOV (L-G) | 385 V AC |
| Maximum continuous operating voltage MCOV (N-G) | 305 V AC |
| Nominal discharge current I_n | 20 kA |
| Mode of protection | L-N |
| | L-G |
| | N-G |
| Nominal voltage | 277 V AC |
| Power distribution system | Single phase |
| Nominal frequency | 50/60 Hz |
| Measured limiting voltage MLV (L-N) | 1610 V |
| Measured limiting voltage MLV (L-G) | 2750 V |
| Measured limiting voltage MLV (N-G) | 1140 V |
| SPD Type | 4CA |

UL connection data

| | |
|-----------------------------|-------------------------|
| Tightening torque | 30 lb _f -in. |
| Conductor cross-section AWG | 14 ... 2 |

Standards and regulations

| | |
|--------------------------|-----------------|
| Standards/specifications | IEC 61643-11 |
| Note | 2011 |
| Standards/specifications | EN 61643-11 |
| Note | 2012 + A11:2018 |

Mounting

| | |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

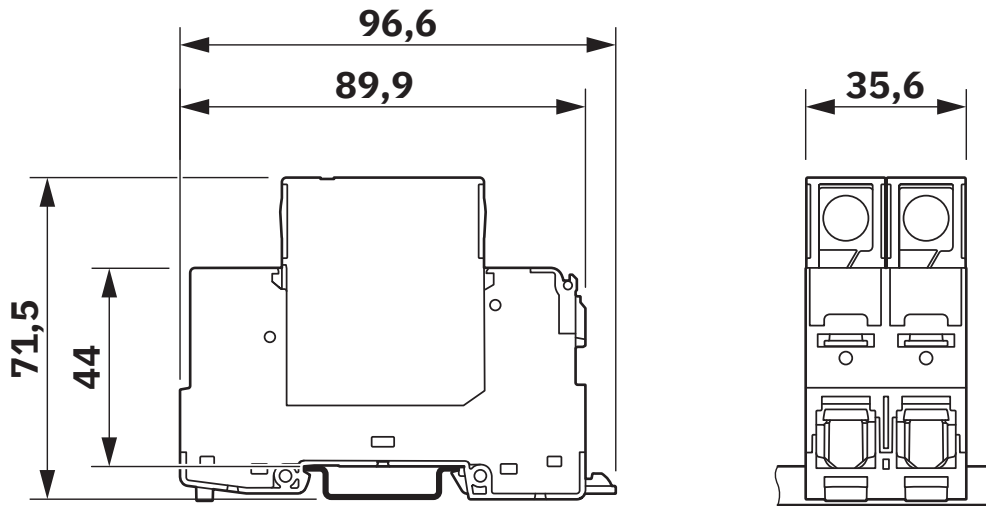
VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester

1466607

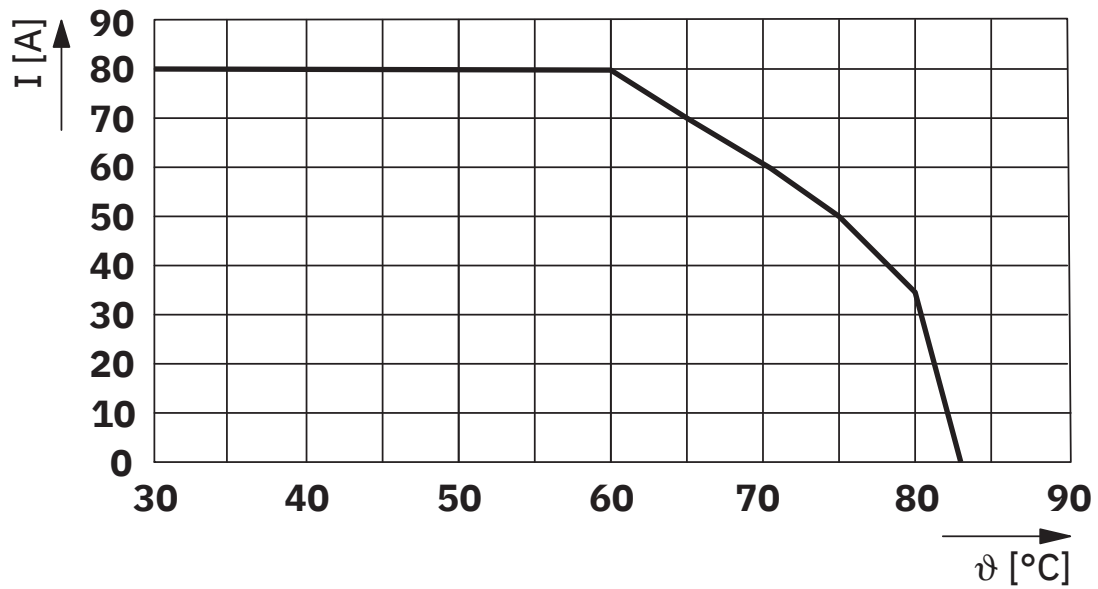
<https://www.phoenixcontact.com/us/products/1466607>

Drawings

Dimensional drawing



Diagram



Max. permissible current in relation to the ambient temperature

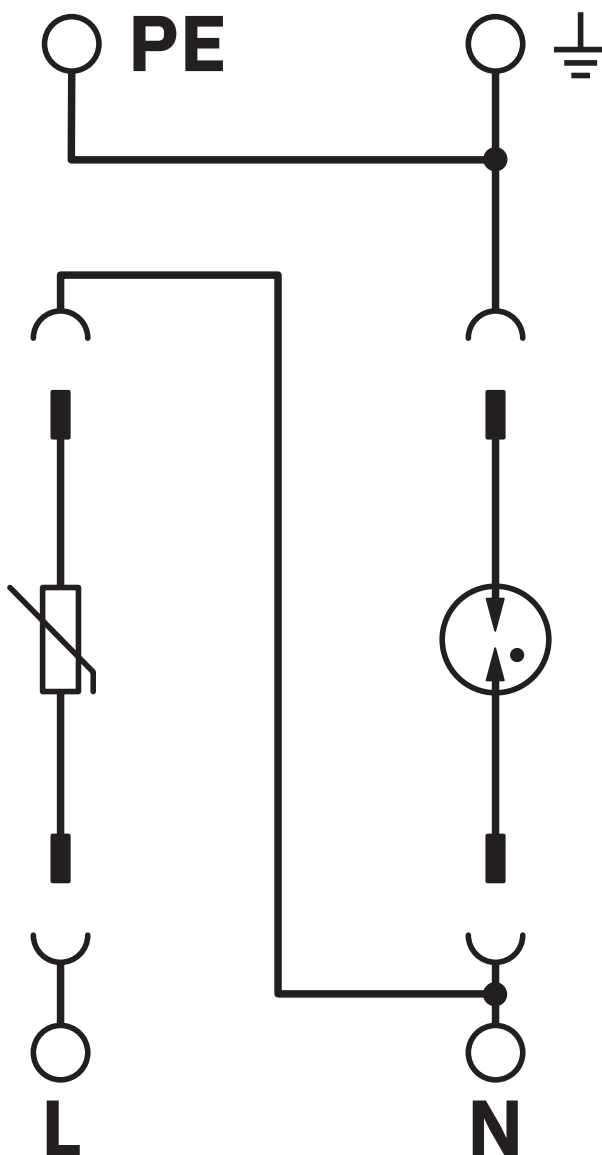
VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

Circuit diagram



VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1466607>



IECEE CB Scheme
Approval ID: NL-109184

CCA

Approval ID: NTR NL-8052

DNV

Approval ID: TAE0000501



IECEE CB Scheme
Approval ID: NL-118261



cULus Recognized
Approval ID: E330181-20240717

DEKRA

Approval ID: 71-161244

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27171202 |
| ECLASS-15.0 | 27171202 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC000941 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

VAL-SPP-T2-385-1+1-UT - Type 2 surge arrester



1466607

<https://www.phoenixcontact.com/us/products/1466607>

Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com