

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

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), with remote indication contact.

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	1466212
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1381
GTIN	4063151857684
Weight per piece (including packing)	259 g
Weight per piece (excluding packing)	236.7 g
Customs tariff number	85363030
Country of origin	DE

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

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, remote indicator contact
Number of ports	One

Insulation characteristics

Overvoltage category	III
Pollution degree	3

Electrical properties

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

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover contact
Max. required back-up fuse	1 A (gG)
AC operating voltage	5 V AC ... 250 V AC ($\leq 2000 \text{ m (amsl)}$ at pollution degree 2)
	5 V AC ... 150 V AC ($\leq 5000 \text{ m (amsl)}$)
AC operating current	5 mA AC ... 1 A AC
DC operating voltage	30 V DC ($\leq 5000 \text{ m (amsl)}$)
DC operating current	1 A DC
DC operating voltage	125 V DC ($\leq 5000 \text{ m (amsl)}$)
DC operating current	200 mA DC
Insulation type	The product has double/reinforced insulation between the main and auxiliary circuit.

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

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
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

Remote fault indicator contact

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross-section flexible	0.25 mm ² ... 1.5 mm ²
Conductor cross-section rigid	0.25 mm ² ... 1.5 mm ²
Conductor cross-section AWG	24 ... 16
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm ² ... 0.75 mm ²

Dimensions

Dimensional drawing	
Width	35.6 mm
Height	109.1 mm
Depth	71.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	2 Div.

Material specifications

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

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)	275 V AC
Maximum continuous operating voltage U_C (L-PE)	275 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	≤ 120 mVA
Nominal discharge current I_n (8/20) μs	20 kA
Maximum discharge current I_{max} (8/20) μs	40 kA
Total discharge current I_{Total} (8/20) μs	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)	≤ 1.35 kV
Voltage protection level U_p (L-PE)	≤ 1.6 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Residual voltage U_{res} (L-N)	≤ 1.35 kV (at I_n)
	≤ 1.1 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
Residual voltage U_{res} (L-PE)	≤ 1.6 kV (at I_n)
	≤ 1.3 kV (at 10 kA)
	≤ 1.1 kV (at 5 kA)
	≤ 1 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)	350 V AC (5 s / withstand mode)

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

	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

UL specifications

Maximum continuous operating voltage MCOV (L-N)	275 V AC
Maximum continuous operating voltage MCOV (L-G)	275 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	240 V AC
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	1350 V
Measured limiting voltage MLV (L-G)	2490 V
Measured limiting voltage MLV (N-G)	1140 V
SPD Type	4CA

UL indicator/remote signaling

Operating voltage	250 V AC
DC operating voltage	30 V DC
AC operating current	5 mA AC ... 1 A AC

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

DC operating current	1 A DC
----------------------	--------

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
---------------	-----------------

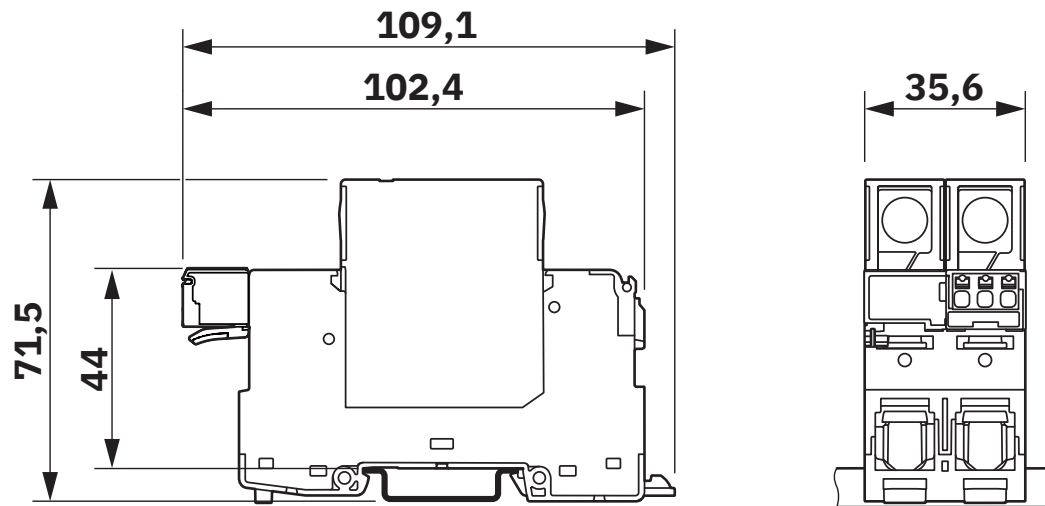
VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester

1466212

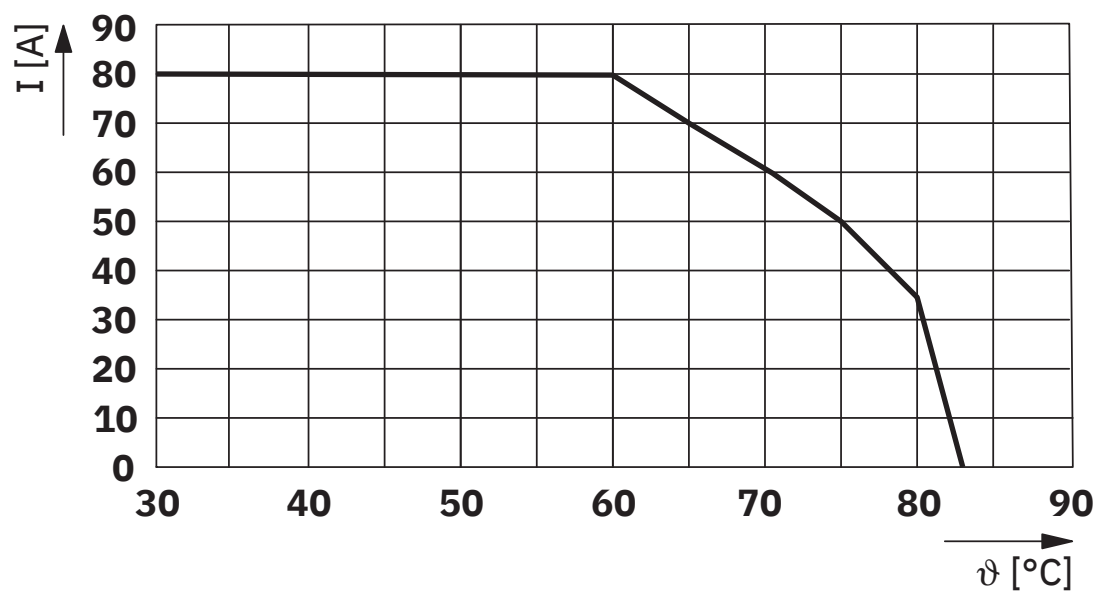
<https://www.phoenixcontact.com/us/products/1466212>

Drawings

Dimensional drawing



Diagram

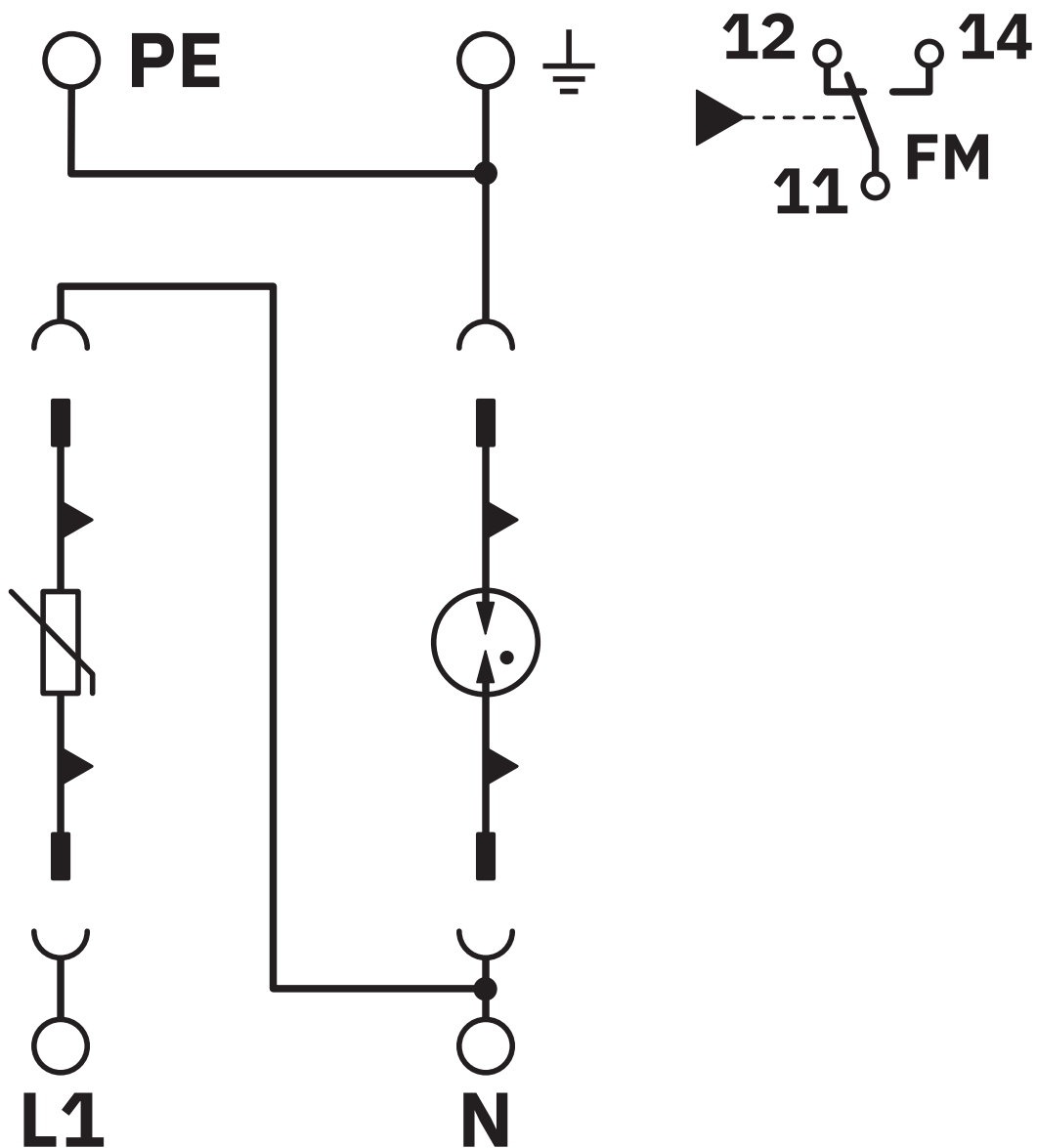


Max. permissible current in relation to the ambient temperature

1466212

<https://www.phoenixcontact.com/us/products/1466212>

Circuit diagram



VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1466212>



IECEE CB Scheme

Approval ID: NL-118261

CCA

Approval ID: NTR NL-8052

DNV

Approval ID: TAE0000501



cULus Recognized

Approval ID: E330181-20240717

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

Classifications

ECLASS

ECLASS-13.0	27171202
ECLASS-15.0	27171202

ETIM

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

UNSPSC

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

VAL-SPP-T2-275-1+1-UT-R - Type 2 surge arrester



1466212

<https://www.phoenixcontact.com/us/products/1466212>

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%
EF3.1 Climate Change	
CO2e kg	2.402 kg CO2e

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