

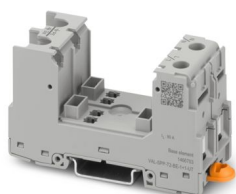
# VAL-SPP-T2-BE-1+1-UT - Type 2 surge protection base element



1466703

<https://www.phoenixcontact.com/gb/products/1466703>

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Base element for type 2 arresters from the VAL-SPP product family. Version for 1-phase power supplies with separate cable routing of N and 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	1466703
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL138Z
Product key	CL138Z
GTIN	4063151861810
Weight per piece (including packing)	166.3 g
Weight per piece (excluding packing)	141.6 g
Customs tariff number	85363030
Country of origin	DE

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## Technical data

### Notes

#### General

Note	<p>Depending on the voltage <math>U_c</math>, the installation height, and the pollution degree, additional minimum lateral distances to grounded, conductive surfaces may need to be observed.</p> <p>Pollution degree 2: <math>U_c \leq 440</math>: No lateral distances required. <math>U_c &gt; 440</math> V ... 880 V: A minimum distance of 6 mm must be observed up to an installation height of 3000 m.</p> <p>Pollution degree 3: <math>U_c \leq 385</math> V: For wiring using a fork-type cable lug, an additional minimum distance of 1 mm must be observed for cross-sections <math>\geq 16</math> mm<sup>2</sup>.</p> <p><math>U_c &gt; 385</math> V ... 440 V: See the table in the download area under the item Packing slip in the installation notes.</p>
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### Product properties

Product type	Base element
Product family	VAL-SPP
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Type	Base element, DIN rail mounting
Number of positions	2
Surge protection fault message	Remote signaling via optional module

#### Insulation characteristics

Overvoltage category	III
Pollution degree	3

### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
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### 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 <sup>2</sup> ... 35 mm <sup>2</sup> (without ferrule)

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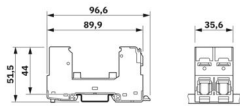


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	2x 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> (2 conductors with the same cross-section)
Conductor cross section rigid	1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup>
	2x 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> (2 conductors with the same cross-section)
Conductor cross section AWG	15 ... 2
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
	2x 1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup> (2 conductors with the same cross-section)
Conductor cross section flexible, with ferrule without plastic sleeve	1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
	2x 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> (2 conductors with the same cross-section)
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>

## Dimensions

Dimensional drawing	
Width	35.6 mm
Height	96.6 mm
Depth	51.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	2 Div.

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT
Material group	I
Housing material	PBT

## Mechanical properties

### Mechanical data

Open side panel	No
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## Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Nominal voltage U <sub>N</sub>	400/690 V AC ±10 % (TN-S)

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	400/690 V AC $\pm 10\%$ (TT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	440 V AC
Rated load current $I_L$	80 A (25 mm <sup>2</sup> )
Nominal discharge current $I_n$ (8/20) $\mu$ s	40 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s	80 kA
Total discharge current $I_{Total}$ (8/20) $\mu$ s	80 kA
Short-circuit current rating $I_{SCCR}$	50 kA
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
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## 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	$\leq 5000$ 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)

## 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
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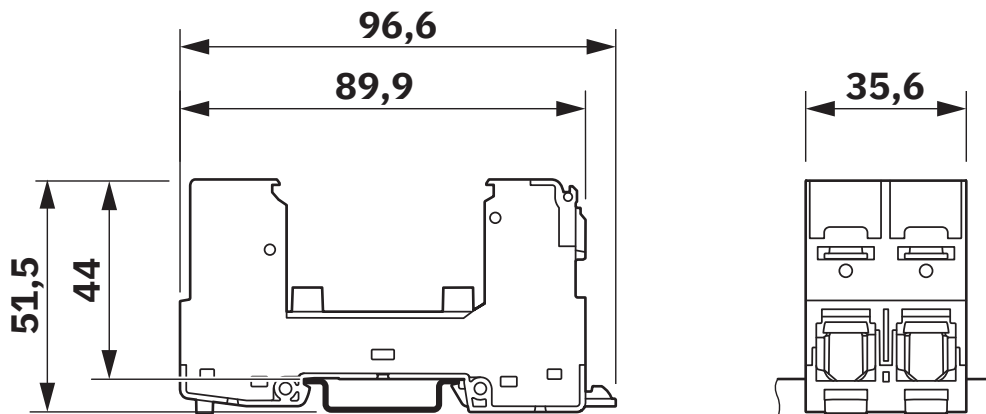
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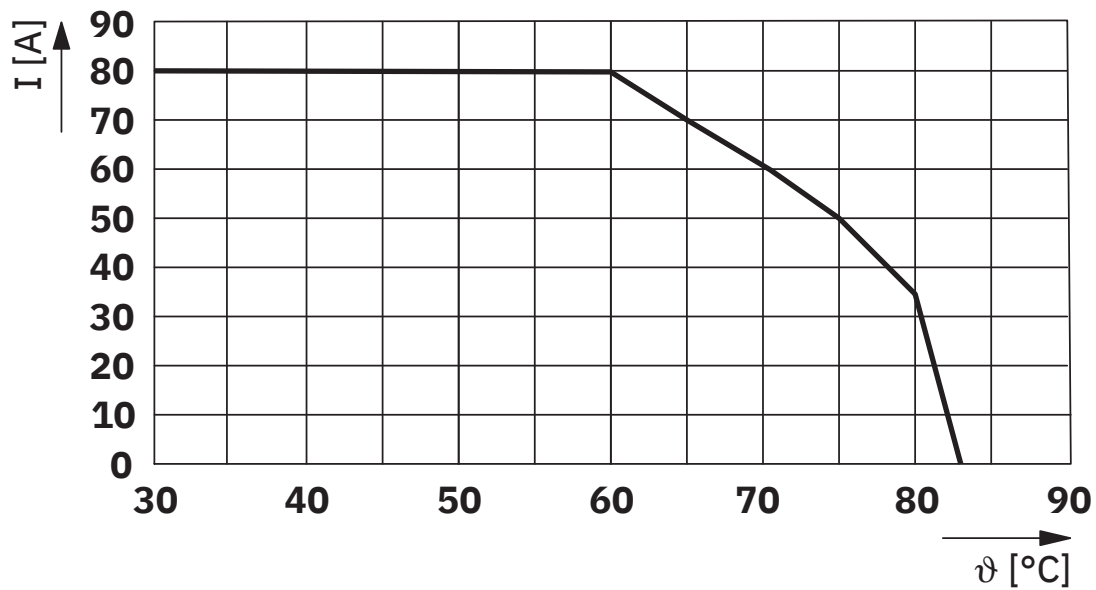
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## Drawings

Dimensional drawing



Diagram



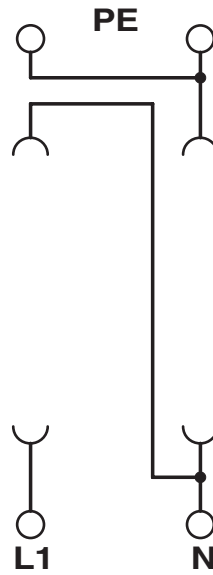
Max. permissible current in relation to the ambient temperature

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Circuit diagram



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## Approvals

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1466703>



**IECEE CB Scheme**

Approval ID: NL-109184

**CCA**

Approval ID: NTR NL-8052



**KEMA-KEUR**

Approval ID: 71-138153 REV.2

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## Classifications

### ECLASS

ECLASS-13.0	27171292
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### ETIM

ETIM 9.0	EC002496
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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