

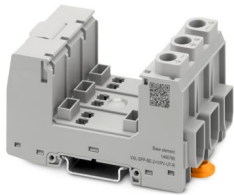
VAL-SPP-BE-2+V/PV-UT-R - Surge protection base-element



1466786

<https://www.phoenixcontact.com/gb/products/1466786>

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Base element for surge arresters, for insulated DC voltage systems, for DIN rail mounting, 3-pos. base element 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	1466786
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL138Z
Product key	CL138Z
GTIN	4063151862701
Weight per piece (including packing)	151.4 g
Weight per piece (excluding packing)	126.2 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

General

Note	Depending on the installation height, additional minimum lateral distances to grounded, conductive surfaces may need to be observed. See the table in the download area under the item Packing slip in the installation notes.
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Product properties

Product type	Base element
Product family	VAL-SPP
IEC test classification	PV II
	PV T2
EN type	T2
IEC power supply system	DC
Type	DIN rail module, two-section, divisible
Number of positions	3
Installation location	Indoor
Installation location of the disconnect device	Internal
Accessibility	Accessible
Connection configuration	Y configuration
End-of-life mode	OCFM (Open-Circuit Failure Mode)
Surge protection fault message	Remote indication contact

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

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 (≤ 2000 m (amsl))
	5 V AC ... 150 V AC ($\leq \text{⚡} \text{⚡} \text{⚡}$ m (amsl))
AC operating current	5 mA AC ... 1 A AC
DC operating voltage	30 V DC ($\leq \text{⚡} \text{⚡} \text{⚡}$ m (amsl))
DC operating current	1 A DC
DC operating voltage	125 V DC ($\leq \text{⚡} \text{⚡} \text{⚡}$ m (amsl))
DC operating current	200 mA DC
Insulation type	The product has double/reinforced insulation between the main and auxiliary circuit.

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Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	2.5 Nm ... 3 Nm
Stripping length	12 mm
Conductor cross section flexible	1.5 mm ² ... 16 mm ² 2x 1.5 mm ² ... 6 mm ² (2 conductors with the same cross-section)
Conductor cross section rigid	1.5 mm ² ... 25 mm ² 2x 1.5 mm ² ... 6 mm ² (2 conductors with the same cross-section)
Conductor cross section AWG	15 ... 4
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	1.5 mm ² ... 6 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	1.5 mm ² ... 16 mm ² 2x 1.5 mm ² ... 6 mm ² (2 conductors with the same cross-section)
Conductor cross section flexible, with ferrule without plastic sleeve	1.5 mm ² ... 16 mm ² 2x 1.5 mm ² ... 6 mm ² (2 conductors with the same cross-section)

Remote fault indicator contact

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Stripping length	7 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	53.4 mm
Height	96.6 mm
Depth	51.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	3 Div.

Material specifications

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

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Material group	I
Housing material	PBT

Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Mode of protection	(DC+) - (DC-)
	(DC+) - PE
	(DC-) - PE
Nominal discharge current I_n (8/20) μ s	20 kA
Maximum discharge current I_{max} (8/20) μ s	40 kA
Total discharge current I_{Total} (8/20) μ s	40 kA

PV protective circuit

Connection configuration	Y configuration
End-of-life mode	OCFM (Open-Circuit Failure Mode)

Protective circuit DC voltage side (DC)

Open circuit voltage U_{OCSTC}	1500 V DC
Maximum discharge current I_{max} (8/20) μ s	40 kA
Total discharge current I_{Total} (8/20) μ s	40 kA
Nominal discharge current I_n (8/20) μ s	20 kA
Maximum continuous operating voltage U_{CPV}	1800 V DC (at ≤ 4000 m (amsl))
	1200 V DC (at ≤ 5000 m (amsl))

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 (5-500 Hz/2.5 h/XYZ)

Standards and regulations

Standards/specifications	EN 61643-31
Note	2019
Standards/specifications	IEC 61643-31
Note	2018

Mounting

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Mounting type	DIN rail: 35 mm
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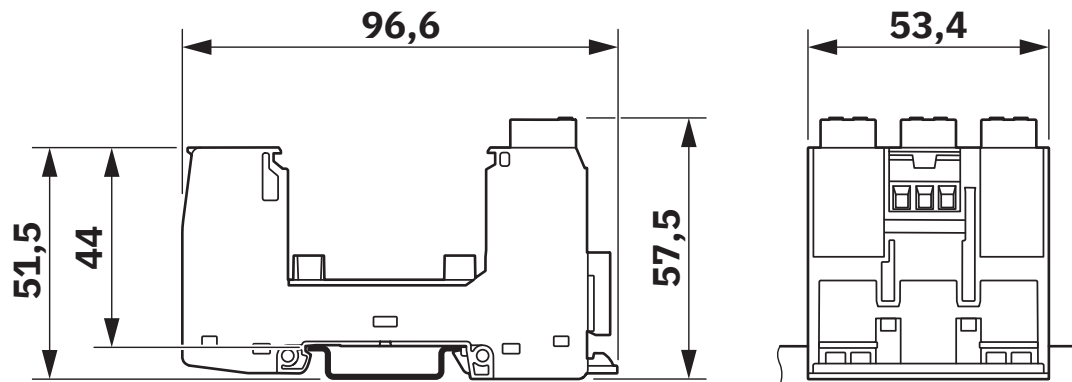


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Drawings

Dimensional drawing

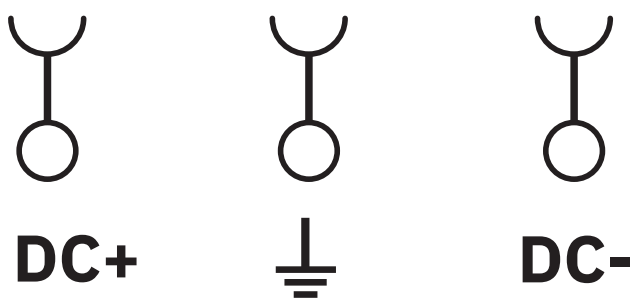
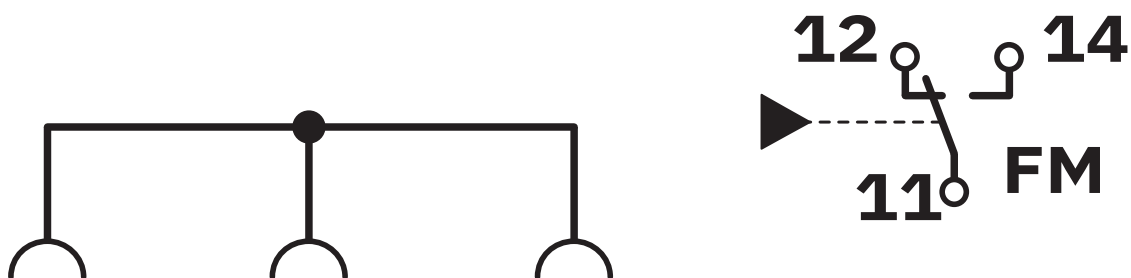


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Circuit diagram



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Approvals

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1466786>



IECEE CB Scheme

Approval ID: NL-109183

CCA

Approval ID: NTR NL-8030



KEMA-KEUR

Approval ID: 71-133324

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Classifications

ECLASS	
ECLASS-13.0	27171492
ETIM	
ETIM 9.0	EC002496

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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%

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