

# VAL-CP-N/PE-175-ST - Type 2 surge protection plug



2859709

<https://www.phoenixcontact.com/au/products/2859709>

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Replacement plug for VAL-CP surge arrester with N-PE spark gap.



## Commercial data

Item number	2859709
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CL1311
Product key	CL1311
Catalog page	Page 30 (TT-2007)
GTIN	4046356045513
Weight per piece (including packing)	40.72 g
Weight per piece (excluding packing)	40 g
Customs tariff number	85363090
Country of origin	DE

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## Technical data

### Product properties

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN
	TT
Type	DIN rail module, two-section, divisible
Product type	Replacement plug
Number of positions	1
Surge protection fault message	optical

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

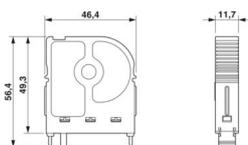
### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
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### Connection data

Connection method	pluggable
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### Dimensions

Dimensional drawing	
Width	11.7 mm
Height	46.4 mm
Depth	56.4 mm

### Material specifications

Color	blue grey (RAL 7031)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT-FR
Material group	I
Housing material	PBT-FR

### Protective circuit

Mode of protection	N-PE
Direction of action	N-PE

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Nominal voltage $U_N$	120 V AC (TN - only N-PE)
	120 V AC (TT - only N-PE)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$ (N-PE)	150 V AC
Residual current $I_{PE}$	$\leq 1 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (N-PE)	20 kA
Maximum discharge current $I_{max}$ (8/20) $\mu s$ (N-PE)	40 kA
Follow current interrupt rating $I_{fi}$ (N-PE)	100 A (150 V AC)
Voltage protection level $U_p$ (N-PE)	$\leq 0.95$ kV
Residual voltage $U_{res}$ (N-PE)	$\leq 0.4$ kV (at $I_n$ )
	$\leq 0.4$ kV (at 10 kA)
	$\leq 0.4$ kV (at 5 kA)
	$\leq 0.4$ kV (at 4 kA)
	$\leq 0.4$ kV (at 2 kA)
TOV behavior at $U_T$ (N-PE)	1200 V AC (200 ms / withstand mode)
Response time $t_A$ (N-PE)	$\leq 100$ ns

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000$ m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (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 (N-G)	150 V AC
Nominal discharge current $I_n$ (N-G)	20 kA
Mode of protection	N-G
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (N-G)	560 V
Follow current (L-G)	200 A (150 V AC)
SPD Type	4CA

## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	DIN VDE 0110-1 / IEC 60664-1 / IEC 61643-1
Standards/specifications	IEC 61643-11
Note	2011

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Standards/specifications	EN 61643-11
Note	2012

## Mounting

Mounting type	on base element
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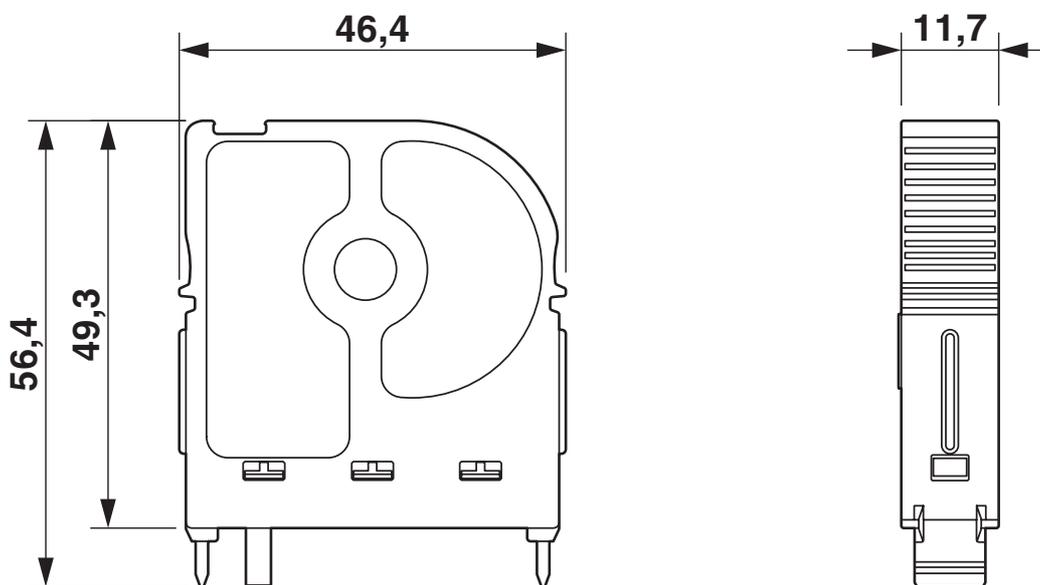


## Drawings

Circuit diagram



Dimensional drawing



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## Approvals

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**cUL Recognized**

Approval ID: FILE E 330181



**UL Recognized**

Approval ID: FILE E 330181



**IECEE CB Scheme**

Approval ID: NL-29957



**EAC**

Approval ID: RU C-DE.\*09.B.00169

**CCA**

Approval ID: NTR-NL 7221



**KEMA-KEUR**

Approval ID: 2161502.01

**cULus Recognized**

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## Classifications

### ECLASS

ECLASS-11.0	27130890
ECLASS-13.0	27171292

### ETIM

ETIM 9.0	EC002496
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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