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VAL-SPP-T1-1000DC-PV-P - Surge protection plug

1466781

https://www.phoenixcontact.com/in/products/1466781

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Replacement plug for PV special combined lightning current and surge arrester from the VAL-SPP-T1-1000DC-PV-2+V-UT... product family.

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	1466781
Packing unit	10 pc
Minimum order quantity	1 pc
Product key	CL11EZ
GTIN	4063151862534
Weight per piece (including packing)	80.7 g
Weight per piece (excluding packing)	77.6 g
Country of origin	DE

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Technical data

Product properties

Product type	Replacement plug
IEC test classification	PV I / II
	PV T1 / T2
EN type	T1 / T2
IEC power supply system	DC
Type	Male
Number of positions	1
Installation location	Indoor
Installation location of the disconnect device	Internal
Accessibility	Accessible
Connection configuration	Y configuration
SPD failure behavior	OCFM (Open-Circuit Failure Mode)
Surge protection fault message	optical

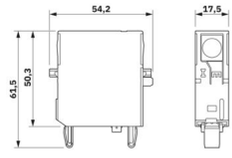
Insulation characteristics

Overvoltage category	III
Pollution degree	2

Connection data

Connection method	pluggable

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	54.2 mm
Depth	61.5 mm
Horizontal pitch	1 Div.

Material specifications

Color	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
Material group	I
Housing material	PA 6.6-FR 20 % GF

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Protective circuit

Residual current I_{PE}	≤ 350 µA AC
	≤ 100 µA DC
Standby power consumption P_C	≤ 60 mVA
Nominal discharge current I_n (8/20) µs	20 kA
Maximum discharge current I_{max} (8/20) µs	40 kA
Impulse discharge current (10/350) µs, charge	2.5 As
Impulse discharge current (10/350) µs, specific energy	6.25 kJ/Ω
Impulse discharge current (10/350) µs, peak value I_{imp}	5 kA
Total discharge current I_{total} (8/20) µs	40 kA
Total discharge current I_{total} (10/350) µs	5 kA
Voltage protection level U_p	≤ 4.2 kV (2 plugs in series)
Residual voltage U_{res}	≤ 4.2 kV (at In, 2 plugs in series)
	≤ 3.6 kV (at 10 kA, 2 plugs in series)
	≤ 3.2 kV (at 5 kA, 2 plugs in series)
	≤ 3 kV (at 3 kA, 2 plugs in series)
Response time t_A	≤ 25 ns

PV protective circuit

Connection configuration	Y configuration
SPD failure behavior	OCFM (Open-Circuit Failure Mode)

Protective circuit DC voltage side (DC)

Open circuit voltage U_{OCSTC}	1000 V DC (2 plugs in series)
Maximum discharge current I_{max} (8/20) µs	40 kA
Response time t_A	≤ 25 ns
Impulse discharge current (10/350) µs, charge	2.5 As
Impulse discharge current (10/350) µs, specific energy	6.25 kJ/Ω
Impulse discharge current (10/350) µs, peak value I_{imp}	5 kA
Total discharge current I_{total} (8/20) µs	40 kA
Total discharge current I_{total} (10/350) µs	5 kA
Insulation resistance R_{iso}	> 5 MΩ (at 500 V DC)
Nominal discharge current I_n (8/20) µs	20 kA
Continuous operating current I_{CPV}	≤ 100 µA DC
Maximum continuous operating voltage U_{CPV}	1200 V DC (2 plugs in series)
Short-circuit current rating I_{SCPV}	15000 A
Residual voltage U_{res}	≤ 4.2 kV (at In, 2 plugs in series)
	≤ 3.6 kV (at 10 kA, 2 plugs in series)
	≤ 3.2 kV (at 5 kA, 2 plugs in series)
	≤ 3 kV (at 3 kA, 2 plugs in series)
Residual current I_{PE}	≤ 350 µA AC
	≤ 100 µA DC
Voltage protection level U_p	≤ 4.2 kV (2 plugs in series)
Standby power consumption P_C	≤ 60 mVA

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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20C
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 ±X, ±Y, ±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

Mounting type	on base element

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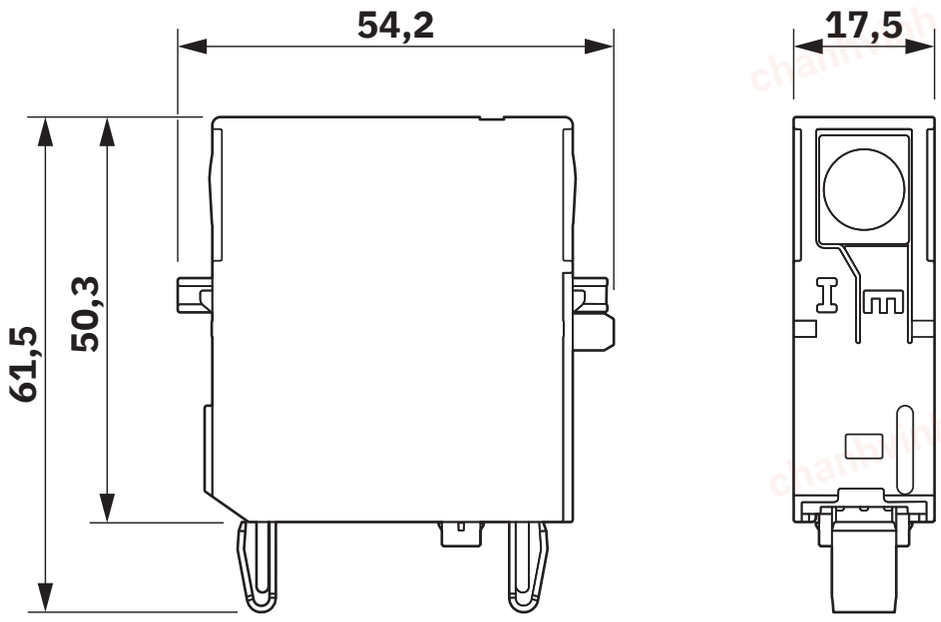
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Drawings

Dimensional drawing



Circuit diagram



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Approvals

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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-11.0	27130890
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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