

VAL-MS 1500DC-PV-ST - Type 2 surge protection plug



1033727

<https://www.phoenixcontact.com/us/products/1033727>

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Pack of three replacement plugs for PV arrester combinations from the VAL-MS 1500DC-PV-... product range

Your advantages

- Increased safety, thanks to compliance with standard EN 50539-11
- Reliable contact, thanks to integrated rotating latch
- Easy replacement, thanks to plug-in arresters
- Optimum inverter protection, thanks to low protection level
- Efficient replacement of defective plugs, thanks to visual status indicator
- Protection against mismatching, thanks to keyed plugs and base elements

Commercial data

Item number	1033727
Packing unit	1 pc
Minimum order quantity	3 pc
Sales key	CL01
Product key	CL1324
Catalog page	Page 73 (C-4-2019)
GTIN	4055626540504
Weight per piece (including packing)	84.5 g
Weight per piece (excluding packing)	84.5 g
Customs tariff number	85354000
Country of origin	DE

Technical data

Notes

General

Note	The device is intended for touch proof installation in a housing. Ensure that there is a gap of at least 8 mm between the active and grounded parts in the connection area.
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Product properties

IEC test classification	PV II PV T2
EN type	T2
IEC power supply system	DC
Type	Male
Distance between live and grounded parts	8 mm
Product type	Replacement plug
Product family	VALVETRAB MS
Installation location	Interior
Installation location of the disconnect device	Internal
Accessibility	Accessible
SPD failure behavior	OCFM (Open-Circuit Failure Mode)
Surge protection fault message	optical

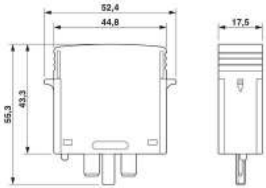
Insulation characteristics

Overvoltage category	III
Pollution degree	2

Connection data

Connection method	pluggable
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Dimensions

Dimensional drawing	
Width	17.5 mm
Height	52.4 mm
Depth	55.3 mm
Horizontal pitch	1 Div.

Material specifications

Flammability rating according to UL 94	V-0
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CTI value of material	600
Insulating material	PA 6.6-FR
	PBT-FR
Material group	I
Housing material	PA 6.6-FR
	PBT-FR

Protective circuit

Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)
Standby power consumption P_C	≤ 250 mVA
Nominal discharge current I_n (8/20) μ s	15 kA
Maximum discharge current I_{max} (8/20) μ s	30 kA
Voltage protection level U_p	≤ 2.5 kV
Residual voltage U_{res}	≤ 1.9 kV (at 3 kA)
	≤ 2.1 kV (at 5 kA)
	≤ 2.2 kV (at 10 kA)
	≤ 2.5 kV (at 15 kA)
	≤ 2.7 kV (at 20 kA)
	≤ 2.9 kV (at 30 kA)
Response time t_A	≤ 25 ns

Protective circuit DC voltage side (DC)

Open circuit voltage U_{OCSTC}	≤ 625 V DC
Maximum discharge current I_{max} (8/20) μ s	30 kA
Response time t_A	≤ 25 ns
Nominal discharge current I_n (8/20) μ s	15 kA
Continuous operating current I_{CPV}	< 350 μ A
Maximum continuous operating voltage U_{CPV}	750 V DC
Short-circuit current rating I_{SCPV}	2000 A
Residual voltage U_{res}	≤ 1.9 kV (at 3 kA)
	≤ 2.1 kV (at 5 kA)
	≤ 2.2 kV (at 10 kA)
	≤ 2.5 kV (at 15 kA)
	≤ 2.7 kV (at 20 kA)
	≤ 2.9 kV (at 30 kA)
Voltage protection level U_p	≤ 2.5 kV
Standby power consumption P_C	≤ 250 mVA

Additional technical data

Maximum discharge current I_{max} (8/20) μ s	40 kA
Nominal discharge current I_n (8/20) μ s	20 kA (4x (5x I_n 120 s) 30 min))

Environmental and real-life conditions

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Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 3000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (5-500 Hz/2.5 h/XYZ)

Approvals

UL specifications

Maximum continuous operating voltage MCOV	1500 V DC
Short-circuit current rating (SCCR)	50 kA
Voltage protection rating VPR	4 kV
Nominal discharge current I_n	10 kA
Mode of protection	(DC+) - (DC-) (DC+) - G (DC-) - G
Nominal voltage	1500 V DC
Power distribution system	DC PV
SPD Type	1CA

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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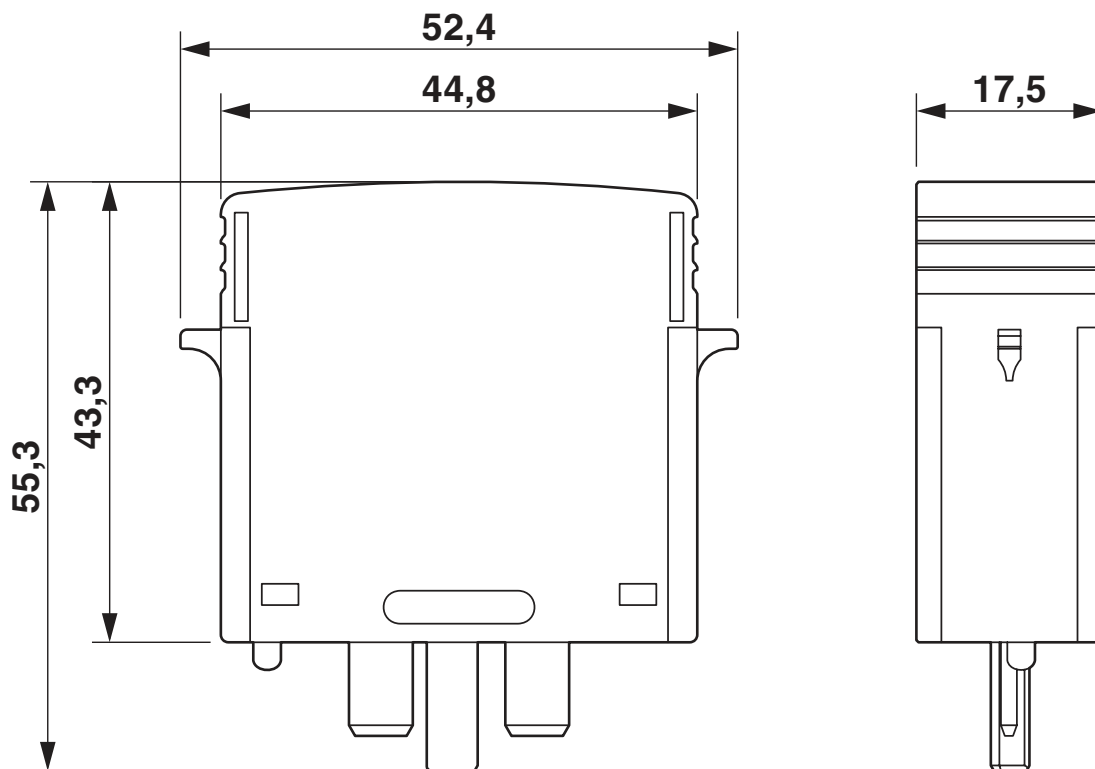


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Drawings

Dimensional drawing



Circuit diagram



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Approvals

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cUL Recognized
Approval ID: FILE E 330181



UL Recognized
Approval ID: FILE E 330181

CCA

Approval ID: NTR-NL 7937



KEMA-KEUR
Approval ID: 71-123544 REV.2



IECEE CB Scheme
Approval ID: NL-81006/A1

UAE-RoHS

Approval ID: 22-09-51250

cULus Recognized

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Classifications

ECLASS

ECLASS-11.0	27130890
ECLASS-13.0	27171492

ETIM

ETIM 8.0	EC002496
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UNSPSC

UNSPSC 21.0	39121620
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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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Accessories

ZBN 18,LGS:ERDE - Marker for terminal blocks

2749589

<https://www.phoenixcontact.com/us/products/2749589>



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

ZBN 18,LGS:L1-N,ERDE - Marker for terminal blocks

2749576

<https://www.phoenixcontact.com/us/products/2749576>



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/us/products/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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