

Type 1/2 surge protection plug - VAL-MS-T1/T2 1000DC-PV-ST - 2801162


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Replacement plug for PV arrester combinations from the VAL-MS-T1/T2 1000DC-PV-... product range



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 714310
GTIN	4046356714310

Technical data

Dimensions

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

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	60g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	7.5g (5-500 Hz/2.5 h/XYZ)

General

IEC test classification	PV I / II
	PV T1 / T2

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Technical data

General

EN type	T1 / T2
SPD failure behavior	OCM (Open-circuit mode)
Installation location	Inside
Accessibility	Accessible
Installation location of the disconnect device	Internal
Mounting type	on base element
Color	jet black RAL 9005
Housing material	PA 6.6-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	Male
Surge protection fault message	optical

Protective circuit DC voltage side (DC)

Maximum continuous operating voltage U_{CPV}	525 V DC
Open circuit voltage U_{OCSTC}	≤ 435 V DC
Short-circuit current rating I_{SCPV}	2000 A
Continuous operating current I_{CPV}	< 20 μ A
Standby power consumption P_C	≤ 25 mVA
Nominal discharge current (8/20) μ s	15 kA
Maximum discharge current I_{max} (8/20) μ s	40 kA
Impulse discharge current (10/350) μ s, charge	2.5 As
Impulse discharge current (10/350) μ s, specific energy	6.25 kJ/ Ω
Impulse discharge current (10/350) μ s, peak value I_{imp}	5 kA
Voltage protection level U_p	≤ 1.8 kV
Residual voltage U_{res}	≤ 1.8 kV (at I_n)
	≤ 1.5 kV (at 5 kA)
	≤ 1.7 kV (at 10 kA)
	≤ 1.9 kV (at 20 kA)
	≤ 2.2 kV (at 30 kA)
	≤ 2.4 kV (at 40 kA)
Response time t_A	≤ 25 ns
Insulation resistance R_{iso}	> 5 G Ω (at 500 V DC)

Connection data

Connection method	pluggable
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UL specifications

SPD Type	1CA
Maximum continuous operating voltage MCOV	1170 V DC

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Technical data

UL specifications

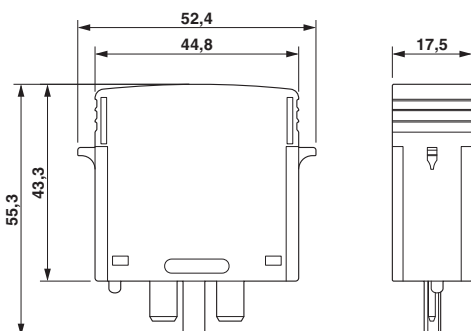
Nominal voltage	1170 V DC
Mode of protection	(L+) - (L-)
	(L+) - G
	(L-) - G
Power distribution system	DC PV
Voltage protection rating VPR	3 kV
Nominal discharge current I_n	10 kA
Short-circuit current rating (SCCR)	50 kA

Standards and Regulations

Standards/regulations	EN 50539-11 2013
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Drawings

Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

UL Recognized / KEMA-KEUR / cUL Recognized / EAC / cULus Recognized

Ex Approvals


Approval details


UL Recognized		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 330181
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Approvals

KEMA-KEUR		http://www.dekra-certification.com	71-102960
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181
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cULus Recognized			
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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>