

VAL-MS 3+V-BE - Surge protection base-element



2905859

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Base element for surge arresters, for isolated 1000 V DC voltage systems, for DIN rail mounting, 4-pos. base element without remote indication contact, for protecting two parallel strings/MPP trackers.

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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

Product type	Base element
Product family	VALVETRAB MB
IEC test classification	PV T1
	PV T2
EN type	T2
Type	Base element, DIN rail mounting
Distance between live and grounded parts	8 mm
Number of positions	2
Installation location	Interior
Installation location of the disconnect device	Internal
Accessibility	Accessible
Connection configuration	Y configuration
SPD failure behavior	OCFM (Only in combination with VAL-MS...DC-PV-ST)
Surge protection fault message	none

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 Nm (1.5 mm ² ... 16 mm ²)
	4.5 Nm (25 mm ² ... 35 mm ²)
Stripping length	16 mm
Conductor cross section flexible	1.5 mm ² ... 25 mm ²
Conductor cross section rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Dimensions

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Dimensional drawing	
Width	71.2 mm
Height	89.8 mm
Depth	51.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	4 Div.

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT
Material group	I
Housing material	PBT

Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Mode of protection	(L+) - (L-)
	(L+) - PE
	(L-) - PE
Rated load current I_L	80 A

PV protective circuit

Connection configuration	Y configuration
SPD failure behavior	OCFM (Only in combination with VAL-MS...DC-PV-ST)

Protective circuit DC voltage side (DC)

Rated load current I_L	80 A
Maximum continuous operating voltage U_{CPV}	1170 V DC

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 3000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

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Standards and regulations

EN 61643-31

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

Mounting

Mounting type	DIN rail: 35 mm
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PHOENIX CONTACT Deutschland GmbH

Flachsmarktstraße 8

D-32825 Blomberg

+49 52 35/3-1 20 00

info@phoenixcontact.de