

Type 2 surge protection device - VAL-MS 600DC/2+V-FM - 2800195

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Surge arrester for 2-pos. isolated and grounded DC voltage systems 600 V DC, for DIN rail mounting, 3-pos. base element (L+, L-, ground) with remote indication contact, three pluggable temperature-monitored varistors, status message on each connector.

The product photo shows a version for 1000 VDC

Product Features

- Plugs can be checked with CHECKMASTER
- With or without floating remote indication contact
- Optical, mechanical status indication for the individual arresters
- Mechanical coding of all slots
- Type 2 consistent plug-in surge arresters



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	320.0 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	99 mm
Width	53.4 mm
Depth	65.5 mm
Horizontal pitch	3 Div.

Ambient conditions

Degree of protection	IP20
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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
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General

Housing material	PBT / PA
Flammability rating according to UL 94	V0
Color	black
Standards for clearances and creepage distances	DIN EN 60664-1
	DIN EN 61643-11
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Optical, remote indicator contact
Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)

Protective circuit

IEC test classification	II
	T2
EN type	T2
Maximum continuous operating voltage U_C	600 V DC
Rated load current I_L	≤ 80 A DC
Residual current I_{PE}	≤ 20 μ A
Standby power consumption P_C	≤ 12 mW
Max. discharge current I_{max} (8/20) μ s	40 kA
Nominal discharge current I_n (8/20) μ s	15 kA
Voltage protection level U_p	≤ 3 kV (15 kA)
	≤ 3.6 kV (20 kA)
Voltage protection level U_p (L+) - (L-)	≤ 3 kV
Voltage protection level U_p (L+/L-) - PE	≤ 3 kV
Residual voltage	≤ 2.5 kV (at 5 kA)
Residual voltage (L+) - (L-)	≤ 2.5 kV (at 5 kA)
Residual voltage (L+/L-) - PE	≤ 2.5 kV (at 5 kA)
Response time t_A	≤ 25 ns

PV protective circuit DC side

Short-circuit current rating I_{SCPV}	80 A
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Connection, protective circuit

Connection method	Screw connection
Connection type IN	Biconnect screw terminal block

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Technical data

Connection, protective circuit

Connection type OUT	Biconnect screw terminal block
Connection method	Biconnect terminal block
Screw thread	M5
Tightening torque	4.5 Nm
	30 lb _f -in. (UL)
Stripping length	16 mm
Conductor cross section flexible min.	1.5 mm ²
Conductor cross section flexible max.	25 mm ²
Conductor cross section solid min.	1.5 mm ²
Conductor cross section solid max.	35 mm ²
Conductor cross section AWG min.	15
Conductor cross section AWG max.	2
Conductor cross section AWG	10 ... 2 (UL)

Remote indicator contact

Switching function	PDT, 1-pos.
Connection method	MC 1,5/3
Screw thread	M2
Tightening torque	0.25 Nm
	4 lb _f -in. (UL)
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
Conductor cross section AWG	30 ... 14 (UL)
Maximum operating voltage U _{max.} AC	250 V AC
Max. operating current I _{max}	1.5 A AC (250 V AC)
	1.5 A DC (30 V DC)

Standards and Regulations

Standards/regulations	DIN EN 61643-11/A11 2007
	IEC 61643-1 2005
	IEC 60364-7-712 2002

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Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 7.0	27130805

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Accessories

Accessories

Bridge

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 400 mm

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Accessories

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Labeled device marker

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, Strip, white, labeled, Horizontal: Grounding symbol, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Marker pen

Marker pen - B-STIFT - 1051993



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

Spare parts

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Accessories

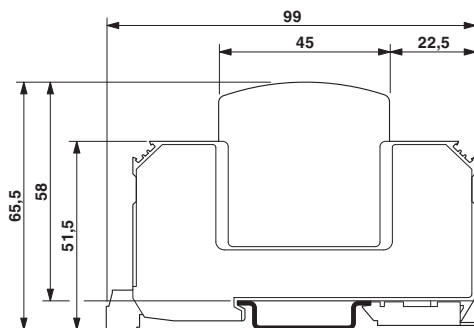
Type 2 surge protection plug - VAL-MS 600PV ST - 2805431



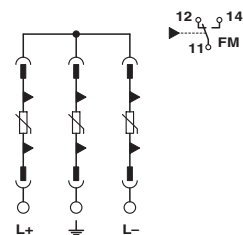
Replacement plug for PV arrester combinations of the VAL-MS 600DC... product range

Drawings

Dimensional drawing



Circuit diagram



Mouser Electronics

Authorized Distributor

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