

## Type 2 surge protection device - VAL-MS 600DC/2+V - 2805457

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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), three pluggable temperature-monitored varistors, status message on each connector.

### Product Features

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



### Key commercial data

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

### Technical data

#### Dimensions

Height	90 mm
Width	53.4 mm
Depth	65.5 mm
Horizontal pitch	3 Div.

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

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### Technical data

#### General

Housing material	PBT / PA
Inflammability class according to UL 94	V0
Color	black
Standards for air 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
Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)

#### Protective circuit

IEC test classification	II
	T2
EN type	T2
Nominal voltage $U_N$	600 V DC (Non-load voltage $U_{OC}$ )
Maximum continuous operating voltage $U_C$	600 V DC
Rated load current $I_L$	$\leq 80$ A DC
Residual current $I_{PE}$	$\leq 20$ $\mu$ A
Standby power consumption $P_C$	$\leq 12$ mW
Max. discharge current $I_{max}$ (8/20) $\mu$ s	40 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s	15 kA
Voltage protection level $U_p$	$\leq 3$ kV (15 kA)
	$\leq 3.6$ kV (20 kA)
Voltage protection level $U_p$ (L+) - (L-)	$\leq 3$ kV
Voltage protection level $U_p$ (L+/L-) - PE	$\leq 3$ kV
	$\leq 2.5$ kV (at 5 kA)
Residual voltage (L+) - (L-)	$\leq 2.5$ kV (at 5 kA)
Residual voltage (L+/L-) - PE	$\leq 2.5$ kV (at 5 kA)
Response time	$\leq 25$ 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
Connection type OUT	Biconnect screw terminal block

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#### Connection, protective circuit

Connection method	Biconnect terminal block
Screw thread	M5
Tightening torque	4.5 Nm
	30 lb <sub>F</sub> -in. (UL)
Stripping length	16 mm
Conductor cross section stranded min.	1.5 mm <sup>2</sup>
Conductor cross section stranded max.	25 mm <sup>2</sup>
Conductor cross section solid min.	1.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2
AWG conductor cross section	10 ... 2 (UL)

#### Standards and Regulations

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

### 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
eCl@ss 8.0	27130805

#### ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000942
ETIM 5.0	EC000942

#### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610

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### UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

### Approvals

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#### Approvals

GOST / UL Recognized / cUL Recognized / cULus Recognized

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

GOST

UL Recognized

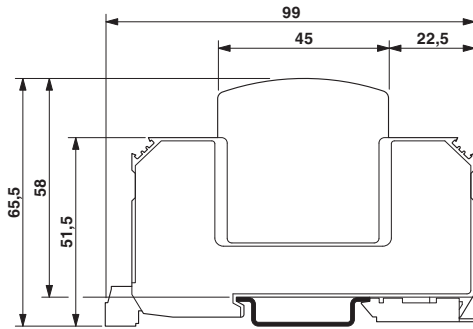
cUL Recognized

cULus Recognized

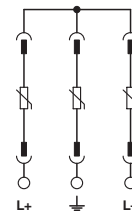
## Drawings

## Type 2 surge protection device - VAL-MS 600DC/2+V - 2805457

Dimensioned drawing



Circuit diagram



The illustration shows the dimensional drawing for a version with remote indicator contact