

## Type 2 surge protection plug - VAL-MS 500 ST - 2807609

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Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 500 V AC

### Product Features

- ✓ Single-channel, DIN-rail mountable protective devices
- ✓ Mechanical coding of all slots
- ✓ Base element with/without floating remote indication contact
- ✓ Consists of base element and plug
- ✓ Optical, mechanical status indication for the individual arresters
- ✓ Disconnect device on each individual plug



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 075293
Weight per Piece (excluding packing)	60.0 g
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

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

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### Technical data

#### 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)	25g (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

#### General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN
	IT
Number of ports	One
SPD design	Voltage-limiting type
Mode of protection	L-PEN
	L-PE
Mounting type	On base element
Color	jet black RAL 9005
Housing material	PA 6.6
Degree of pollution	2
Distance between live and grounded parts	5 mm
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	1
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10
Surge protection fault message	optical

#### Additional descriptions

Note	Usable in all low-voltage systems between L-N or L-PEN. Only usable in IT Systems between L-PE, if the exposed-conductive-parts (bodies) of the equipment of the low-voltage installation is connected to the earthing arrangement of the transformer substation. (interconnected earthing arrangement of the HV-transformer substation with the bodies of the LV-installation. $R_E = R_A$ accordance to IEC 60364-4-442 / VDE 0100-442 Fig. 44D / Example a)
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#### Protective circuit

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### Technical data

#### Protective circuit

Nominal voltage $U_N$	400/690 V AC (TN)
	500 V AC (IT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	600 V AC
Residual current $I_{PE}$	$\leq 0.3$ mA
Standby power consumption $P_C$	$\leq 180$ mVA
Nominal discharge current $I_n$ (8/20) $\mu$ s	15 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s	30 kA
Short-circuit current rating $I_{SCCR}$	25 kA
Voltage protection level $U_p$	$\leq 2.7$ kV
Residual voltage $U_{res}$	$\leq 2.7$ kV (at $I_n$ )
	$\leq 2.5$ kV (at 10 kA)
	$\leq 2.3$ kV (at 5 kA)
	$\leq 2.2$ kV (at 3 kA)
TOV behavior at $U_T$	690 V AC (5 s / withstand mode)
Response time $t_A$	$\leq 25$ ns
Max. backup fuse with branch wiring	125 A (gG)

#### Connection data

Connection method	VALVETRAB plug-in system
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#### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-N)	600 V AC
Nom. voltage	500 V AC
Mode of protection	L-N
Power distribution system	1
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	2370 V
Nominal discharge current $I_n$ (L-N)	10 kA

### Classifications

#### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801

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## Classifications

### eCl@ss

eCl@ss 6.0	27130805
eCl@ss 7.0	27130805
eCl@ss 8.0	27130805
eCl@ss 9.0	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

## Approvals

### Approvals

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#### Approvals

IECEE CB Scheme / CSA / UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / GL / CCA / EAC / EAC / cULus Recognized

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#### Ex Approvals

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#### Approvals submitted

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#### Approval details

IECEE CB Scheme 
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### Approvals

CSA 

UL Recognized 

KEMA-KEUR 

ÖVE 


cUL Recognized 

GL

CCA

EAC

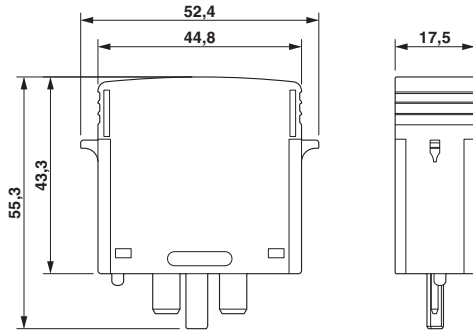
EAC

cULus Recognized 

### Drawings

## Type 2 surge protection plug - VAL-MS 500 ST - 2807609

Dimensional drawing



Circuit diagram

