

## Type 2 surge protection plug - VAL-MS 580-ST - 2920434

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Type 2 surge protection plug with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 580 V AC

### Your advantages

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



### Key Commercial Data

Packing unit	10 pc
GTIN	 4 046356 163682
GTIN	4046356163682

### 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))

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## Technical data

### Ambient conditions

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)

### General

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN
	IT
Mode of protection	L-PE
	L-PEN
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	Male
Number of positions	1
Surge protection fault message	optical

### Additional descriptions

Note	For use in all low-voltage systems between L-PEN. Only for use in IT systems between L-PE if the bodies of the equipment in the low-voltage system are connected to the grounding system of the transformer station. (common grounding of the HV transformer station and the bodies of the LV consumer's installation. $R_E = R_A$ according to IEC 60364-4-442/VDE 0100-442 Figure 44D/example a)
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### 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 $U_C$	580 V AC
Residual current $I_{PE}$	$\leq 0.25$ mA
Standby power consumption $P_C$	$\leq 150$ 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 $U_p$	$\leq 2.5$ kV
Residual voltage $U_{res}$	$\leq 2.5$ kV (at $I_n$ )
	$\leq 2.3$ kV (at 10 kA)

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### Technical data

#### Protective circuit

	≤ 2.1 kV (at 5 kA)
	≤ 1.9 kV (at 3 kA)
TOV behavior at $U_T$	690 V AC (5 s / withstand mode)
	762 V AC (120 min / withstand mode)
Response time $t_A$	≤ 25 ns
Max. backup fuse with branch wiring	125 A (gG)

#### Connection data

Connection method	pluggable
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#### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-N)	580 V AC
Nom. voltage	400 V AC
Mode of protection	L-N
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	2310 V
Nominal discharge current $I_n$ (L-N)	10 kA

#### Standards and Regulations

Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

#### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

### Drawings

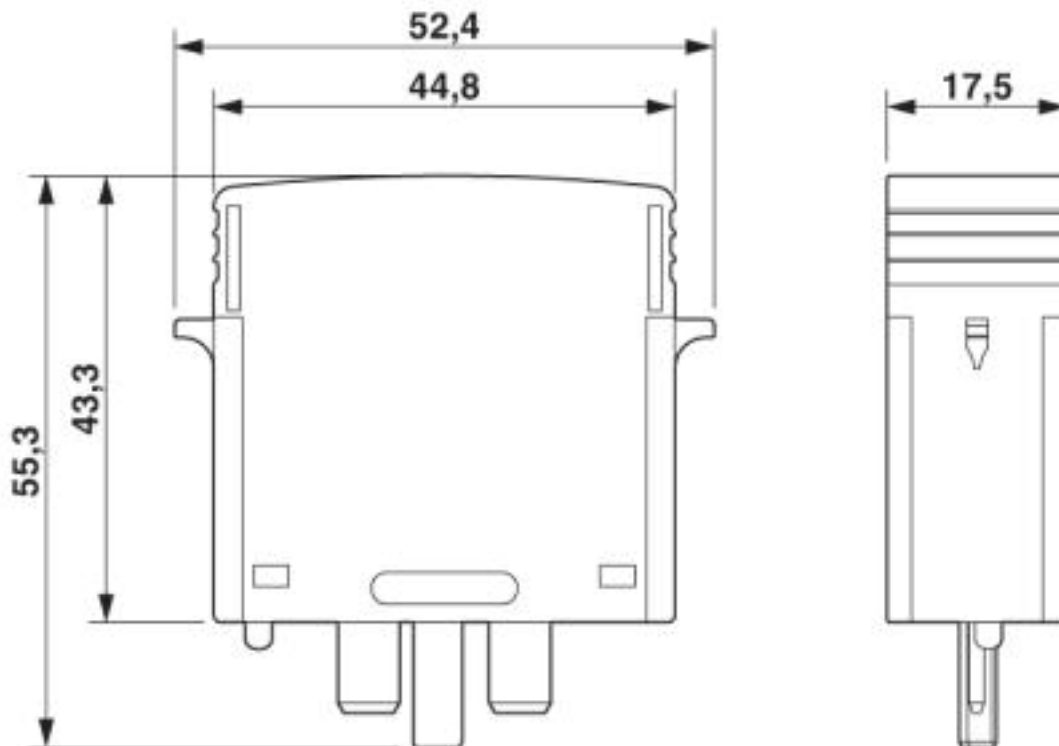
## Type 2 surge protection plug - VAL-MS 580-ST - 2920434

Circuit diagram



## Type 2 surge protection plug - VAL-MS 580-ST - 2920434

Dimensional drawing



### Classifications

#### eCl@ss

eCl@ss 10.0.1	27130890
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130805
eCl@ss 8.0	27130890
eCl@ss 9.0	27130890

#### ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC002496
ETIM 6.0	EC000941
ETIM 7.0	EC000941

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## Classifications

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals

#### Approvals

CSA / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IECCEB Scheme / ÖVE / EAC / cULus Recognized

#### Ex Approvals


### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
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CCA			NTR-AT 1947-A
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
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KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	71-113273
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
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## Approvals

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	AT 2905/M1
ÖVE		<a href="https://www.ove.at/zertifizierung-pz/zertifizierungsregister/">https://www.ove.at/zertifizierung-pz/zertifizierungsregister/</a>	18583-001-14
EAC			RU C- DE.A*30.B01561
cULus Recognized			

## Accessories

### Accessories

#### Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

#### 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 size: 18 x 5 mm, Number of individual labels: 5

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, Strip, white, labeled, Horizontal: L1, L2, L3, N, GND, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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### Accessories

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#### 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

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#### Additional products

Type 2 surge protection base element - VAL-MS BE - 2817741



Base element for type 2 arresters of the VALVETRAB MS series of products. Design: 1-channel

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Type 2 surge protection base element - VAL-MS BE/FM - 2817738



Base element for type 2 arresters of the VALVETRAB MS series of products, with remote indication contact. Design: 1-channel

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