

Type 2 surge protection plug - VAL-MS 230 ST

2798844

<https://www.phoenixcontact.com/us/products/2798844>

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Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 230 V AC

Your advantages

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Wide range of applications due to various nominal voltages
- High degree of modularity provides individual solutions for every application

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Commercial Data

Item number	2798844
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	C06
Product Key	CL1321
Catalog Page	Page 67 (C-4-2019)
GTIN	4017918073947
Weight per Piece (including packing)	42.52 g
Weight per Piece (excluding packing)	41.1 g
Customs tariff number	85363010
Country of origin	DE

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Technical Data

Product properties

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN
	TT
Type	DIN rail module, two-section, divisible
Product type	Replacement plug
Number of positions	1
Surge protection fault message	optical
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10

Insulation characteristics

Overvoltage category	III
Pollution degree	2

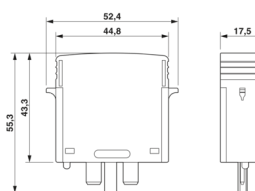
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
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Connection data

Connection method	pluggable
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Dimensions

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

Material specifications

Color	jet black RAL 9005
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6
Material group	I
Housing material	PA 6.6

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Protective circuit

Mode of protection	L-N L-PEN
Direction of action	1L-N/PE
Nominal voltage U_N	240/415 V AC (TN) 240/415 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	275 V AC
Residual current I_{PE}	≤ 0.45 mA
Standby power consumption P_C	≤ 120 mVA
Nominal discharge current I_n (8/20) μ s	20 kA
Maximum discharge current I_{max} (8/20) μ s	40 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 1.35 kV
Residual voltage U_{res}	≤ 1.35 kV (at I_n) ≤ 1.1 kV (at 10 kA) ≤ 1 kV (at 5 kA) ≤ 0.9 kV (at 3 kA)
TOV behavior at U_T	335 V AC (5 s / withstand mode) 440 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	125 A (gG)

Environmental and real-life conditions

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-sine / 11 ms / 3x \pm X, \pm Y, \pm Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

Approval data

UL specifications

Maximum continuous operating voltage MCOV (L-N)	275 V AC
Nominal discharge current I_n (L-N)	20 kA
Mode of protection	L-N
Nominal voltage	230 V AC
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	1910 V

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SPD Type	4CA
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Standards and regulations

Standards/specifications	IEC 61643-11
Standards/specifications	EN 61643-11

Mounting

Mounting type	on base element
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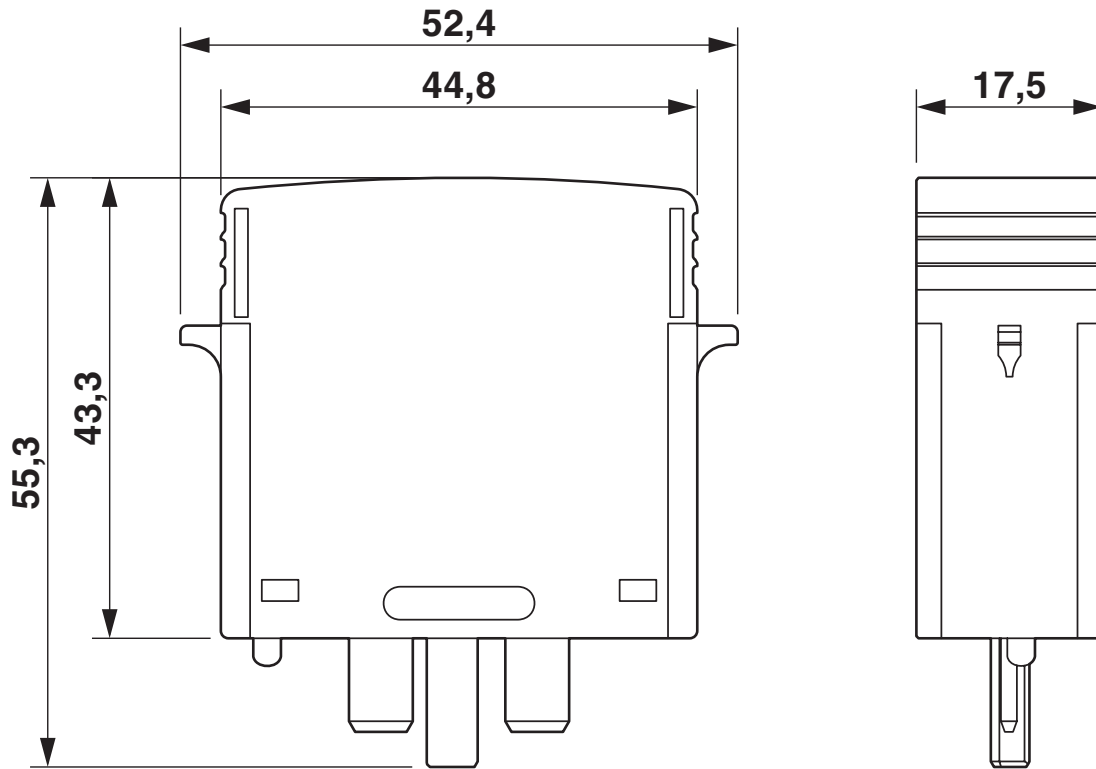
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Drawings

Dimensional drawing



Circuit diagram



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Approvals



cUL Recognized
Approval ID: FILE E 330181



UL Recognized
Approval ID: FILE E 330181



IECEE CB Scheme
Approval ID: AT 2905/M1



EAC
Approval ID: EAC-Zulassung

CCA

Approval ID: NTR-AT 1947-A

Nominal Voltage U_N

Nominal Current I_N

Cross Section AWG

Cross Section mm^2

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KEMA-KEUR
Approval ID: 71-113273



DNV GL
Approval ID: TAE000041M

Nominal Voltage U_N

Nominal Current I_N

Cross Section AWG

Cross Section mm^2

-

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EAC
Approval ID: RU C-DE.*09.B.00169



CSA
Approval ID: 13631



ÖVE
Approval ID: 18583-001-15

cULus Recognized

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Classifications

ECLASS

ECLASS-9.0	27130890
ECLASS-10.0.1	27130890
ECLASS-11.0	27130890

ETIM

ETIM 8.0	EC002496
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UNSPSC

UNSPSC 21.0	
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Environmental Product Compliance

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

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Accessories

Marker pen

Marker pen - B-STIFT - 1051993

<https://www.phoenixcontact.com/us/products/1051993>



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

Type 2 surge protection base element

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

<https://www.phoenixcontact.com/us/products/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

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

<https://www.phoenixcontact.com/us/products/2817738>

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



Zack marker strip

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128

<https://www.phoenixcontact.com/us/products/2809128>

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



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Marker for terminal blocks

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

<https://www.phoenixcontact.com/us/products/2749589>

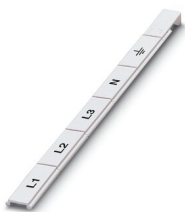


Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Marker for terminal blocks

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

<https://www.phoenixcontact.com/us/products/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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