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VAL-MS 690 ST - Type 2 surge protection plug

1068842

https://www.phoenixcontact.com/in/products/1068842

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Type 2 surge protection plug with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 690 V AC

Commercial data

Item number	1068842
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL1
Product key	CL1321
GTIN	4055626743905
Weight per piece (including packing)	79.79 g
Weight per piece (excluding packing)	70.5 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Notes

General

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)
	A maximum backup fuse (with branch line wiring) of F=250 A gG can be used for systems with a prospective short-circuit current of between 3 kA to 50 kA.

Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN
	IT
Type	Male
Distance between live and grounded parts	8 mm
Number of positions	1
Surge protection fault message	optical

Insulation characteristics

Overvoltage category	III
Pollution degree	2

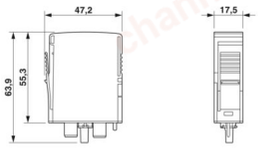
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)

Connection data

Connection method	pluggable

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	52.4 mm

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Depth	55.3 mm
Horizontal pitch	1 Div.

Material specifications

Color	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

Protective circuit

Mode of protection	L-PE (IT)
	L-PEN (TN-C)
Direction of action	1L-N/PE
Nominal voltage U_N	554/960 V AC (TN)
	690 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	760 V AC
Residual current I_{PE}	≤ 0.5 mA
Standby power consumption P_C	≤ 400 mVA
Nominal discharge current I_n (8/20) µs	20 kA
Maximum discharge current I_{max} (8/20) µs	30 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 2.9 kV
TOV behavior at U_T	1005 V AC (5 s / withstand mode)
	1056 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	200 A (gG)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m (amsl)
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)

Approvals

UL specifications

Maximum continuous operating voltage MCOV (L-N)	750 V AC

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Nominal discharge current I_n (L-N)	20 kA
Mode of protection	L-N
Nominal voltage	690 V AC
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	3040 V
SPD Type	4CA

Standards and regulations

Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	on base element

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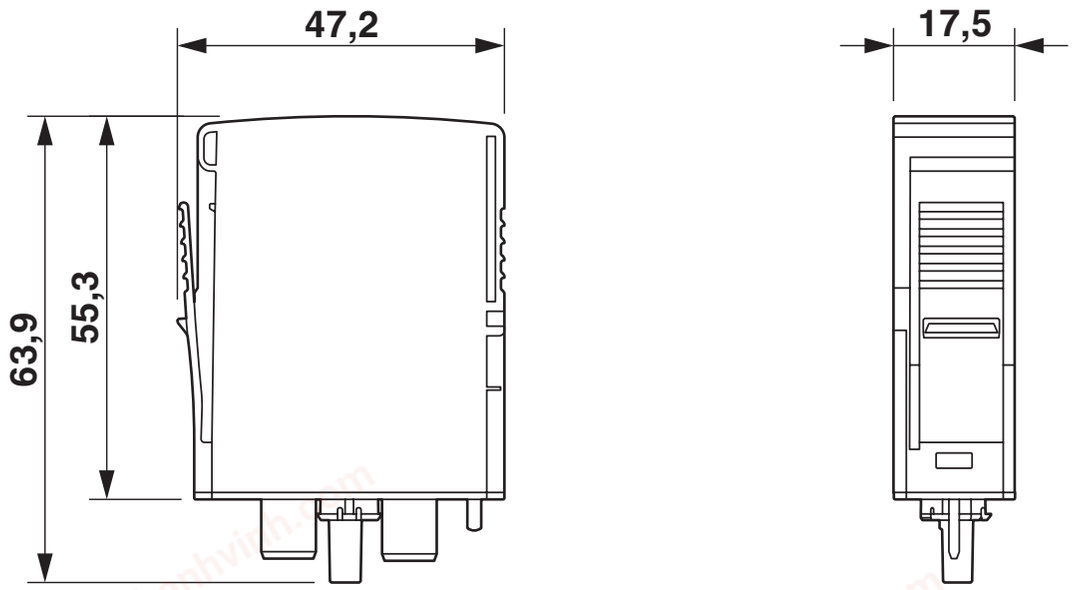
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Drawings

Circuit diagram



Dimensional drawing



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/1068842

cUL Recognized
Approval ID: FILE E 330181

UL Recognized
Approval ID: FILE E 330181

IECEE CB Scheme
Approval ID: NL-53346

CCA
Approval ID: NTR-NL 7701

KEMA-KEUR
Approval ID: 71-104925

UAE-RoHS
Approval ID: 22-09-51251

cULus Recognized

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Classifications

ECLASS

ECLASS-11.0	27130890
ECLASS-13.0	27171292

ETIM

ETIM 9.0	EC002496

UNSPSC

UNSPSC 21.0	39121600

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Accessories

ZBN 18 CUS - Zack marker strip

0825059

https://www.phoenixcontact.com/in/products/0825059



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 18 mm, Number of individual labels: 5, text field height: 5 mm, text field width: 18 mm

ZBN 18,LGS:ERDE - Marker for terminal blocks

2749589

https://www.phoenixcontact.com/in/products/2749589



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: latching, for terminal block width: 18 mm, Number of individual labels: 5, text field height: 5 mm, text field width: 18 mm

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

2749576

https://www.phoenixcontact.com/in/products/2749576



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: latching, for terminal block width: 18 mm, Number of individual labels: 5, text field height: 5 mm, text field width: 18 mm

ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

https://www.phoenixcontact.com/in/products/2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: latching, for terminal block width: 18 mm, Number of individual labels: 5, text field height: 5 mm, text field width: 18 mm

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VAL-MS-T1/T2 BE-FM - Base element

2801047

https://www.phoenixcontact.com/in/products/2801047



Base element for type 1/2 arresters from the VALVETRAB MS T1/T2 product range, with remote indication contact. Version: 1-channel

B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/in/products/1051993



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

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