

VAL-SEC-T2-440-P - Type 2 surge protection plug



2909969

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Replacement plug for surge arresters from the VALVETRAB SEC product range for L-N and L-PEN paths.

Your advantages

- Surge protection family for universal use with optimum energy coordination from the lightning current arrester to the device protection
- Easy to maintain due to consistently pluggable protection modules
- Excellent level of information provided by mechanical/visual status indicator and remote indication contact
- More space in the control cabinet due to the narrow overall width of just 12 mm per position and use without separate backup fuse up to 315 A gG
- Low voltage protection level at high nominal voltage for optimum protection of the subsequent installation
- Extremely narrow design, just 12 mm per position
- Varistor arrester with a low leakage current

Commercial data

Item number	2909969
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	NULL
Product key	CL1351
GTIN	4055626409061
Weight per piece (including packing)	66.62 g
Weight per piece (excluding packing)	63.42 g
Customs tariff number	85363090
Country of origin	DE

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Technical data

Notes

General

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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Product properties

Product type	Replacement plug
Product family	SEC Family
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN
	TT
	IT
Type	Male
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)
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Connection data

Connection method	pluggable
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Dimensions

Dimensional drawing	
Width	11.7 mm
Height	46.4 mm
Depth	59.4 mm

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Horizontal pitch	0.6 Div.
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Material specifications

Color	light gray (RAL 7035)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA6.6-FR 20% GF
	PBT-FR
Material group	I
Housing material	PA 6.6-FR 20 % GF
	PBT-FR

Protective circuit

Mode of protection	L-N
	L-PEN
Direction of action	L-N / L-PEN
Nominal voltage U_N	400 V AC (TN)
	400 V AC (TT)
	400 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C	440 V AC
Standby power consumption P_C	≤ 180 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 (for a backup fuse of up to 315 A gG)
	50 kA (for a backup fuse of up to 200 A gG)
Voltage protection level U_p	≤ 1.9 kV
Residual voltage U_{res}	≤ 1.9 kV (at I_n)
	≤ 1.65 kV (at 10 kA)
	≤ 1.5 kV (at 5 kA)
	≤ 1.45 kV (at 4 kA)
	≤ 1.35 kV (at 2 kA)
TOV behavior at U_T	581 V AC (5 s / withstand mode)
	762 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	315 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)
Permissible humidity (operation)	5 % ... 95 %

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Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm X$, $\pm Y$, $\pm Z$)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

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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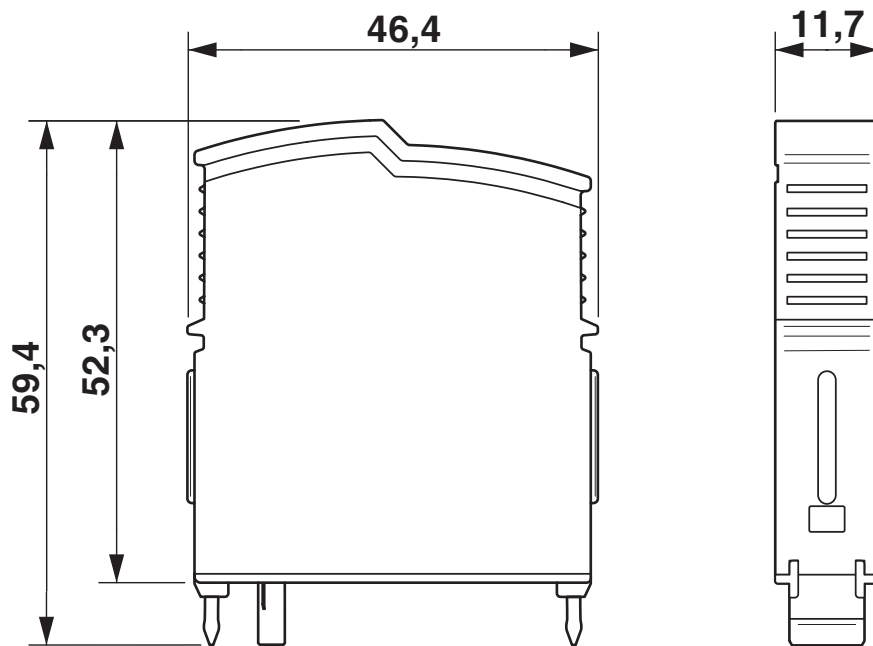
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Drawings

Dimensional drawing



Circuit diagram



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Approvals

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UAE-RoHS

Approval ID: 23-10-88707

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Classifications

ECLASS

ECLASS-13.0	27171292
ECLASS-15.0	27171292

ETIM

ETIM 9.0	EC002496
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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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