

VAL-MS-T1/T2 175/12.5 ST - Type 1/2 surge protection plug



2800676

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L-N replacement plug for VAL-MS-T1/T2 175/12.5 plug-in lighting/surge arrester.

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

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Technical data

Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	I / II
	I
	T1 / T2
EN type	T1 / T2
IEC power supply system	TN-C
	TN-S
	TT
Type	Male
Surge protection fault message	optical

Insulation characteristics

Overvoltage category	III
Pollution degree	2

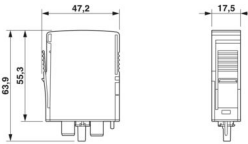
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
Nominal voltage U_N	120 V AC

Connection data

Connection method	pluggable
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Dimensions

Dimensional drawing	
Width	17.5 mm
Height	47 mm
Depth	67.3 mm
Horizontal pitch	1 Div.

Material specifications

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

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Housing material	PA 6.6
	PBT

Protective circuit

Mode of protection	L-N
	L-PEN
Direction of action	L-N / L-PEN
Nominal voltage U_N	120/208 V AC (TN-C, TN-S)
	120/208 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	175 V AC
Residual current I_{PE}	$\leq 800 \mu A$
Standby power consumption P_C	$\leq 140.00 \text{ mVA}$
Nominal discharge current I_n (8/20) μs	12.5 kA
Maximum discharge current I_{max} (8/20) μs	50 kA
Impulse discharge current (10/350) μs , charge	6.25 As
Impulse discharge current (10/350) μs , specific energy	39 kJ/ Ω
Impulse discharge current (10/350) μs , peak value I_{imp}	12.5 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	$\leq 0.8 \text{ kV}$
Residual voltage U_{res}	$\leq 0.8 \text{ kV}$ (at I_n)
	$\leq 0.7 \text{ kV}$ (at 10 kA)
	$\leq 0.6 \text{ kV}$ (at 5 kA)
	$\leq 0.5 \text{ kV}$ (at 3 kA)
TOV behavior at U_T	208 V AC (5 s / withstand mode)
	229 V AC (120 min / withstand mode)
Response time t_A	$\leq 25 \text{ ns}$
Max. backup fuse with branch wiring	160 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	$\leq 2000 \text{ m}$ (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm X$, $\pm Y$, $\pm Z$)
Vibration (operation)	7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

Approvals

UL specifications

Maximum continuous operating voltage MCOV (L-N)	175 V AC
Nominal discharge current I_n (L-N)	20 kA

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Mode of protection	L-N
Nominal voltage	120 V AC
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	2200 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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PHOENIX CONTACT Deutschland GmbH
Flachmarktstraße 8
D-32825 Blomberg
+49 52 35/3-1 20 00
info@phoenixcontact.de