

F-MS-T1/T2 50 ST - Type 1/2 surge protection plug



2800191

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N-PE replacement plug for VAL-MS-T1/T2 335/12.5 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

Commercial data

Item number	2800191
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1151
Catalog page	Page 46 (C-4-2019)
GTIN	4046356518628
Weight per piece (including packing)	77.9 g
Weight per piece (excluding packing)	77.9 g
Customs tariff number	85363030
Country of origin	DE

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Technical data

Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	I / II
	T1 / T2
	T1
EN type	T1 / T2
	T1
IEC power supply system	TN-S
	TT
Type	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	optical

Data management status

Article revision	05
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Insulation characteristics

Overvoltage category	III
Pollution degree	2

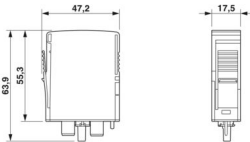
Electrical properties

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	17.7 mm
Height	47 mm
Depth	67.3 mm
Horizontal pitch	1 Div.

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600

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Insulating material	PA 6.6/PBT
Material group	I
Housing material	PA 6.6
	PBT

Protective circuit

Mode of protection	N-PE
Direction of action	N-PE
Nominal voltage U_N	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	264 V AC
Residual current I_{PE}	$\leq 5 \mu A$
Standby power consumption P_C	$\leq 1.3 \text{ mVA}$
Nominal discharge current I_n (8/20) μs	50 kA
Maximum discharge current I_{max} (8/20) μs	50 kA
Impulse discharge current (10/350) μs , charge	25 As
Impulse discharge current (10/350) μs , specific energy	625 kJ/ Ω
Impulse discharge current (10/350) μs , peak value I_{imp}	50 kA
Follow current interrupt rating I_{fi}	100 A (264 V AC)
Voltage protection level U_p	$\leq 1.7 \text{ kV}$
Residual voltage U_{res}	$\leq 0.6 \text{ kV}$ (at I_n)
	$\leq 0.5 \text{ kV}$ (at 10 kA)
	$\leq 0.5 \text{ kV}$ (at 5 kA)
	$\leq 0.4 \text{ kV}$ (at 3 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) μs	$\leq 1.7 \text{ kV}$
TOV behavior at U_T	1200 V AC (200 ms / withstand mode)
Response time t_A	$\leq 100 \text{ ns}$

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 (N-G)	264 V AC
Nominal discharge current I_n (N-G)	20 kA

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Mode of protection	N-G
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (N-G)	2600 V
SPD Type	4CA

Standards and regulations

Standards/specifications	IEC 61643-11
Note	2011

EN 61643-11

Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	on base element
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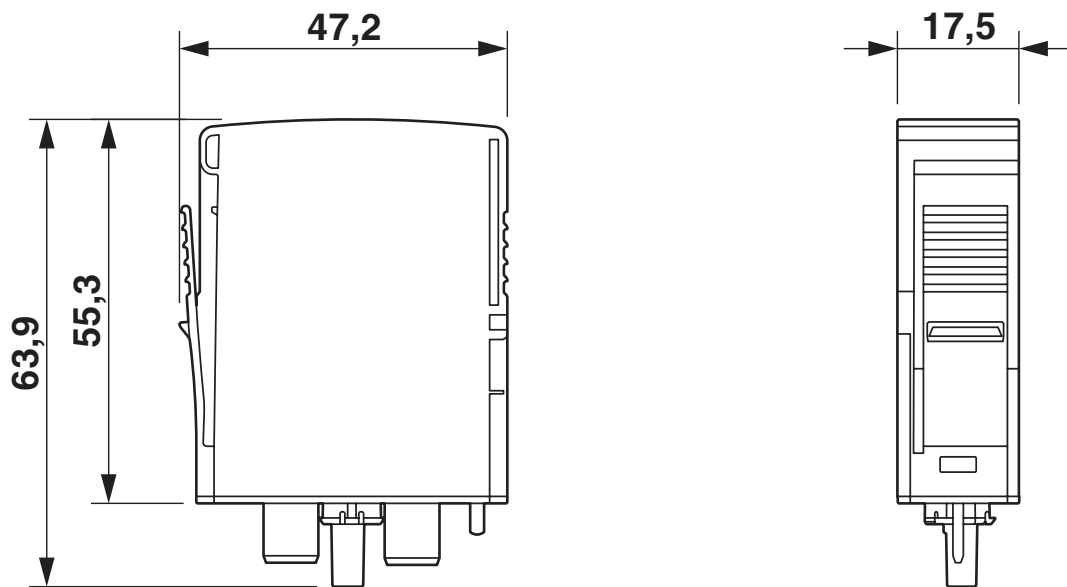
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Drawings

Dimensional drawing



Circuit diagram



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Approvals

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cUL Recognized
Approval ID: FILE E 330181



UL Recognized
Approval ID: FILE E 330181



IECEE CB Scheme
Approval ID: AT 2584



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

CCA

Approval ID: NTR-AT 1906



KEMA-KEUR
Approval ID: 2162496-01



DNV GL
Approval ID: TAE00001N9



ÖVE
Approval ID: 18583-009-09

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Classifications

ECLASS

ECLASS-11.0	27130890
ECLASS-13.0	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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