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
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

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

Insulation characteristics

Overvoltage category	III
Pollution degree	2

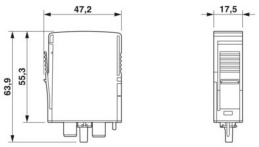
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)

Connection data

Connection method	pluggable

Dimensions

Dimensional drawing	
Width	17.7 mm
Height	47 mm
Depth	67.3 mm
Horizontal pitch	1 HP

Material specifications

Color	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
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 operating voltage U_C	264 V AC
Protective conductor current I_{PE}	≤ 5 µA
Standby power consumption P_C	≤ 1.3 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	≤ 1.7 kV
Residual voltage U_{res}	≤ 0.6 kV (at I_n)
	≤ 0.5 kV (at 10 kA)
	≤ 0.5 kV (at 5 kA)
	≤ 0.4 kV (at 3 kA)
Front-of-wave sparkover voltage at 6 kV (1.2/50) µs	≤ 1.7 kV
TOV behavior at U_T	1200 V AC (200 ms / withstand mode)
Response time t_A	≤ 100 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	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x ±X, ±Y, ±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
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

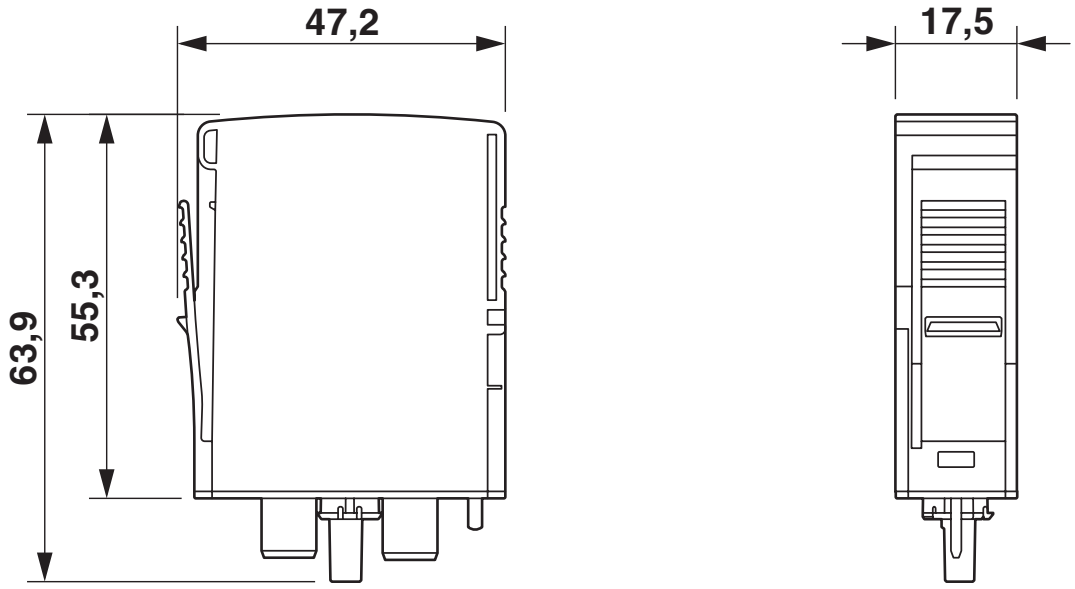
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	on base element

Drawings

Dimensional drawing



Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2800191

cUL Recognized
Approval ID: FILE E 330181

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Approval ID: FILE E 330181

IECEE CB Scheme
Approval ID: AT 2584

CCA
Approval ID: NTR-AT 1906

KEMA-KEUR
Approval ID: 2162496-01

DNV GL
Approval ID: TAE00001N9

ÖVE
Approval ID: 18583-009-09

Classifications

ECLASS

ECLASS-13.0	27171292
ECLASS-15.0	27171292

ETIM

ETIM 10.0	EC002496

UNSPSC

UNSPSC 21.0	39121600

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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