

F-MS-T1/T2 50 - Lightning/surge arrester type 1/2



2801136

<https://www.phoenixcontact.com/us/products/2801136>

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Lightning/surge arrester, consisting of base element and protective plug with N-PE total current spark gap, for mounting on NS 35/7,5. Housing width: 17.5 mm (1TE)

Commercial data

Item number	2801136
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1151
GTIN	4046356701952
Weight per piece (including packing)	170 g
Weight per piece (excluding packing)	164.1 g
Customs tariff number	85363030
Country of origin	DE

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Technical data

Product properties

IEC test classification	I / II
	T1 / T2
	I
EN type	T1 / T2
IEC power supply system	TN-S
Type	DIN rail module, two-section, divisible
Product type	Arrester combination
Product family	VALVETRAB MS
Surge protection fault message	optical

Insulation characteristics

Overvoltage category	III
Pollution degree	2

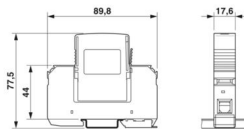
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
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Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 Nm (1.5 mm ² ... 16 mm ²)
	4.5 Nm (25 mm ² ... 35 mm ²)
Stripping length	16 mm
Conductor cross section flexible	1.5 mm ² ... 25 mm ²
Conductor cross section rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Dimensions

Dimensional drawing	
Width	17.6 mm
Height	89.8 mm
Depth	77.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

Material specifications

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Color	black (RAL 9005)
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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

Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Mode of protection	N-PE
Direction of action	N-PE
Nominal voltage U_N	240/415 V AC (TN-S)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	264 V AC
Rated load current I_L	80 A
Residual current I_{PE}	$\leq 5 \mu\text{A}$
Standby power consumption P_C	1.30 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	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
Total discharge current I_{total} (8/20) μs	50 kA
Total discharge current I_{total} (10/350) μs	50 kA
Follow current interrupt rating I_{fi}	100 A
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 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C

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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)

Standards and regulations

Air clearances and creepage distances

Standards/regulations	DIN EN 60664-1
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	DIN rail: 35 mm
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Classifications

ECLASS

ECLASS-11.0	27130802
ECLASS-13.0	27171201

ETIM

ETIM 9.0	EC000381
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e No hazardous substances above threshold values
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