FLT-MB-T1-264/25-3+1-UT - Type 1+2+3 combined lightning current and surge arresters

1461303

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Compact, non-pluggable lightning current/surge arrester free of leakage current based on wear-free carbon spark gap technology for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), suitable for use in the unmetered area, discharge capacity of up to 100 kA for lightning protection levels I and II.

Your advantages

- Safe operation and maximum system availability, thanks to reliable protection in the event of lightning current and surge voltages using innovative high-performance spark gap technology
- Maximum performance in the smallest installation space for all common power supply systems
- Suitable for use in the unmetered area, thanks to a protective circuit free of leakage current, and to a mechanical visual status indicator
- Space-saving and inexpensive installation, thanks to the slim overall width
- Informed at all times about the function of the protective effect, thanks to clear green/red indicator and optional remote indication contact

Commercial data

Item number	1461303
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CL11D2
GTIN	4063151853150
Weight per piece (including packing)	596.4 g
Weight per piece (excluding packing)	560 g
Country of origin	CN

Technical data

Product properties

Product type	Combination type
IEC test classification	I + II + III
	T1 + T2 + T3
EN type	T1 + T2 + T3
IEC power supply system	TN-S
	TT
Type	DIN rail module, one-piece
Surge protection fault message	optical
Number of ports	One

Insulation characteristics

Overvoltage category	IV
Pollution degree	2

Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 Nm (2,5 mm² ... 16 mm²)
	4.5 Nm (25 mm² ... 35 mm²)
Stripping length	18 mm
Conductor cross-section flexible	2.5 mm² ... 25 mm²
Conductor cross-section rigid	2.5 mm² ... 35 mm²
Conductor cross-section AWG	13 ... 2
Connection method	Fork-type cable lug
Conductor cross-section flexible	2.5 mm² ... 25 mm²

Dimensions

Dimensional drawing	
Width	72 mm
Height	89.8 mm
Depth	76.6 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	4 Div.

Material specifications

Color	light gray (RAL 7035)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT
Material group	I
Housing material	PBT

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Mode of protection	L-N
	L-PE
	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
Rated load current I_L	80 A (< 55 °C)
Protective conductor current I_{PE}	≤ 0.01 mA
Nominal discharge current I_n (8/20) µs (L-N)	25 kA
Nominal discharge current I_n (8/20) µs (L-PE)	25 kA
Nominal discharge current I_n (8/20) µs (N-PE)	100 kA
Combination wave U_{OC}	6 kV
Impulse discharge current (10/350) µs (L-N), charge	12.5 As
Impulse discharge current (10/350) µs (L-N), specific energy	156 kJ/Ω
Impulse discharge current (10/350) µs (L-N), peak current value I_{imp}	25 kA
Impulse discharge current (10/350) µs (L-PE), charge	12.5 As
Impulse discharge current (10/350) µs (L-PE), specific energy	156 kJ/Ω
Impulse discharge current (10/350) µs (L-PE), peak current value I_{imp}	25 kA
Impulse discharge current (10/350) µs (N-PE), charge	50 As
Impulse discharge current (10/350) µs (N-PE), specific energy	2500 kJ/Ω
Impulse discharge current (10/350) µs (N-PE), peak current value I_{imp}	100 kA
Total discharge current I_{Total} (10/350) µs	100 kA
Follow current quenching capacity I_{fi} (L-N)	50 kA
Follow current interrupt rating I_{fi} (N-PE)	100 A
Short-circuit current rating I_{SCCR}	50 kA

Voltage protection level U_p (L-N)	≤ 1.5 kV
Voltage protection level U_p (L-PE)	≤ 2.5 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Residual voltage U_{res} (L-N)	≤ 1.5 kV (at I_n)
	≤ 1.3 kV (at 12.5 kA)
	≤ 1.1 kV (at 5 kA)
	≤ 1 kV (at 2.5 kA)
Residual voltage U_{res} (L-PE)	≤ 1.7 kV (at I_n)
	≤ 1.5 kV (at 12.5 kA)
	≤ 1.3 kV (at 5 kA)
	≤ 1.2 kV (at 2.5 kA)
Residual voltage U_{res} (N-PE)	≤ 1.5 kV (at I_n)
	≤ 1.3 kV (at 50 kA)
	≤ 1.1 kV (at 20 kA)
	≤ 1 kV (at 10 kA)
TOV behavior at U_T (L-N)	457 V AC (5 s / withstand mode)
	457 V AC (120 min / withstand mode)
TOV behavior at U_T (N-PE)	1200 V AC (200 ms / withstand mode)
Response time t_A	≤ 100 ns
Max. backup fuse with V-type through wiring	80 A (gG)
Max. backup fuse with branch wiring	315 A (gG)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (Installed)
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 5000 m
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	2g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	0,5g (9 … 200 Hz / 2.5 h / X, Y, Z)

Standards and regulations

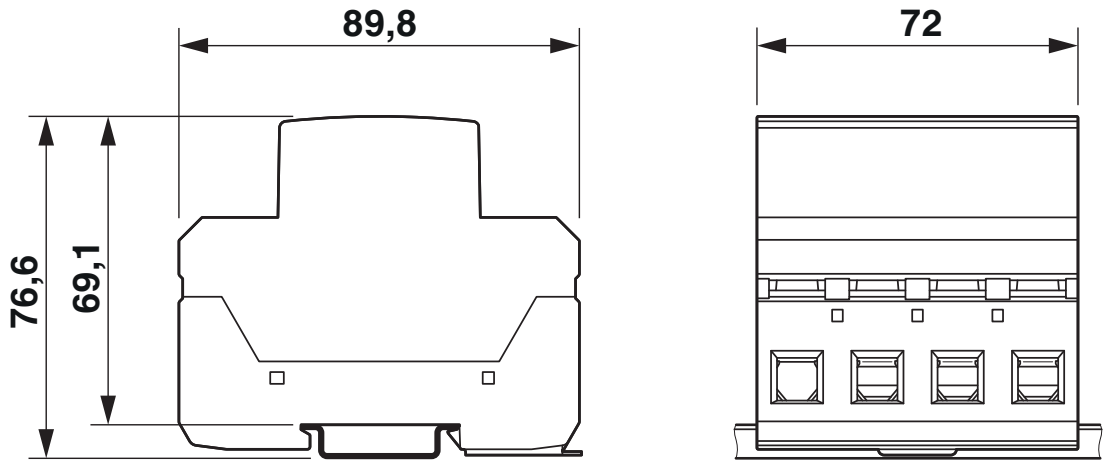
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

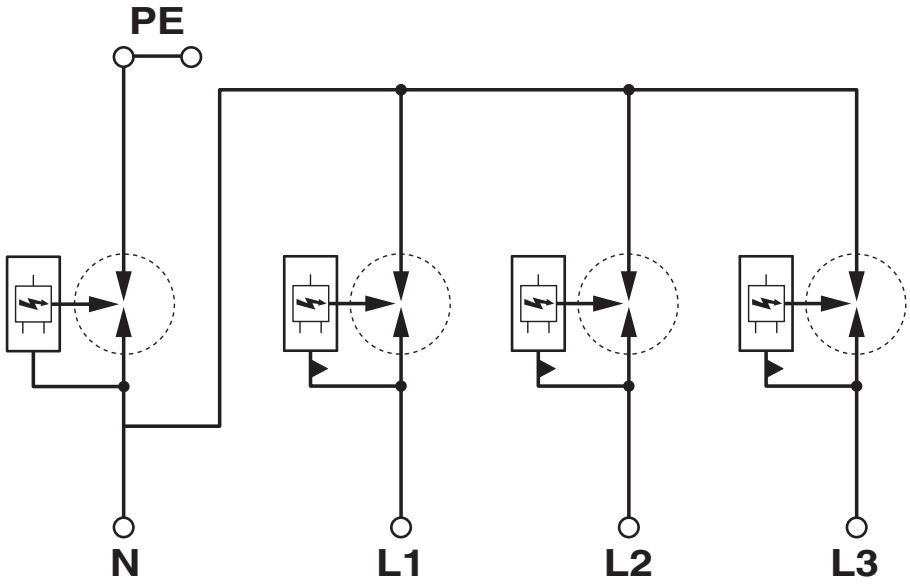
Mounting type	DIN rail: 35 mm

Drawings

Dimensional drawing



Circuit diagram



Approvals

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KEMA-KEUR
Approval ID: 71-136866

IECEE CB Scheme
Approval ID: NL-109225

CCA
Approval ID: NTR NL-8051

Classifications

ECLASS

ECLASS-13.0	27171201
ECLASS-15.0	27171201

ETIM

ETIM 10.0	EC000381

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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