

# Lightning current arrester type 1 - FLT-SEC-P-T1-N/PE-350/100-FM - 2905472

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Plug-in lightning current arrester, in accordance with Type 1/Class I, for use in power supply networks between N and PE.

## Why buy this product

- Spark gap has no line follow current
- Free of leakage current, suitable for use in the pre-meter area
- High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- Pluggable
- Low voltage protection level of 1.5 kV
- Optical, mechanical status indicator
- With floating remote indication contact
- Plugs can be checked with CHECKMASTER 2



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 950701
GTIN	4046356950701
Weight per Piece (excluding packing)	380.200 g
Custom tariff number	85363030
Country of origin	Germany

## Technical data

### Dimensions

Height	95.2 mm
Width	35.6 mm
Depth	74.5 mm

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## Technical data

### Dimensions

Horizontal pitch	2 Div.
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### Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (5 - 500 Hz/2.5 h/X, Y, Z)

### General

IEC test classification	I / II
	T1 / T2
	T1
	I
EN type	T1 / T2
	T1
IEC power supply system	TN-S
	TT
Mode of protection	N-PE
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
	traffic grey A RAL 7042
Housing material	PA 6.6-FR 20% GF
	PBT-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage $U_N$	240 V AC (TN - only N-PE)
	240 V AC (TT - only N-PE)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	350 V AC
Rated load current $I_L$	125 A (< 55 °C)
Residual current $I_{PE}$	≤ 0.01 mA
Nominal discharge current $I_n$ (8/20) $\mu$ s	100 kA
Impulse discharge current (10/350) $\mu$ s, charge	50 As

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## Technical data

### Protective circuit

Impulse discharge current (10/350) $\mu$ s, specific energy	2500 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	100 kA
Follow current interrupt rating $I_{fi}$	100 A
Voltage protection level $U_p$	$\leq 1.5$ kV
Residual voltage $U_{res}$	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1$ kV (at 10 kA)
	$\leq 0.9$ kV (at 5 kA)
	$\leq 0.8$ kV (at 3 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s	$\leq 1.5$ kV
TOV behavior at $U_T$	1200 V AC (200 ms / withstand mode)
Response time $t_A$	$\leq 100$ ns

### Indicator/remote signaling

Switching function	PDT contact
Operating voltage	12 V AC ... 250 V AC
	125 V DC (200 mA DC)
Operating current	10 mA AC ... 1 A AC
	1 A DC (30 V DC)
Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

### Connection data

Connection method	Screw terminal blocks
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section solid	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG	13 ... 2

### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (N-G)	264 V AC
Mode of protection	N-G
Power distribution system	1S
Nominal frequency	50/60 Hz

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## Technical data

### UL specifications

Measured limiting voltage MLV (N-G)	1080 V
Nominal discharge current I <sub>n</sub> (N-G)	20 kA

### UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A AC
Tightening torque	4 lb <sub>F</sub> -in.
Conductor cross section AWG	30 ... 14

### UL connection data

Conductor cross section AWG	12 ... 2
Tightening torque	40 lb <sub>F</sub> -in.

### Standards and Regulations

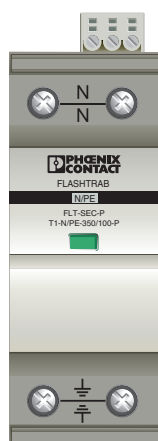
Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

### Environmental Product Compliance

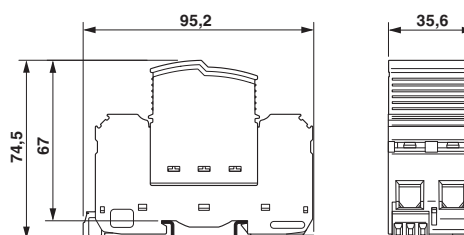
REACH SVHC	UV -328 25973-55-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Product drawing

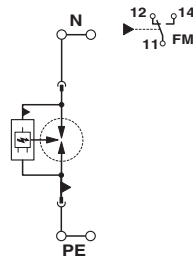


Dimensional drawing



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Circuit diagram



## Classifications

### eCl@ss

eCl@ss 5.1	27140201
eCl@ss 6.0	27140201
eCl@ss 8.0	27130802
eCl@ss 9.0	27130802

### ETIM

ETIM 4.0	EC000381
ETIM 5.0	EC000381
ETIM 6.0	EC000381

### UNSPSC

UNSPSC 13.2	39121620
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## Approvals

### Approvals

#### Approvals

UL Recognized / KEMA-KEUR / cUL Recognized / CCA / IECCE CB Scheme / GL / EAC / cULus Recognized

#### Ex Approvals

### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
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## Approvals

KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	2185820.01
cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
CCA			NTR-NL 7348
IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	NL-34357
GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	13946-15 HH
EAC			RU C- DE.A*30.B01561
cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	

## Accessories

### Accessories

### Device marking

Label - EML (20XE)R - 0803452



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, Mounting type: adhesive, Lettering field: continuous x 20 mm

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## Accessories

Label - EML (20XE)R YE - 0803453



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, Mounting type: adhesive, Lettering field: continuous x 20 mm

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Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

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Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

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## End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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## Labeled device marker

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, Strip, white, labeled, Horizontal: L1, L2, L3, N, GND, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

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## Accessories

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, Strip, white, labeled, Horizontal: Grounding symbol, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

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## Marker pen

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

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## Terminal marking

Flat zack marker sheet - ZBFM 5/WH:UNBEDRUCKT - 0803595



Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into flat marker groove, for terminal block width: 5.2 mm, Lettering field: 5 x 4.5 mm

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## Spare parts

Type 1 surge protection plug - FLT-SEC-P-T1-N/PE-350/100-P - 2905473



Replacement plug for lightning current arresters from the FLASHTRAB SEC product range, for the N-PE path.