

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




Plug-in lightning current arrester, in accordance with Type 1/Class I, for 1-phase power supply networks with separate N and PE (L1, PE, N).

## Your advantages

- ✓ 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 pc
GTIN	 4 055626 045887
GTIN	4055626045887
Weight per Piece (excluding packing)	760.000 g
Custom tariff number	85363010
Country of origin	Germany

## Technical data

### Dimensions

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

## Technical data

### Dimensions

Height	95.2 mm
Width	71.2 mm
Depth	74.5 mm
Horizontal pitch	4 Div.

### 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-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (5 - 500 Hz/2.5 h/X, Y, Z)

### General

IEC test classification	I / II
	I
	T1 / T2
	T1
EN type	T1 / T2
	T1
IEC power supply system	TN-S
	TT
Mode of protection	L-N
	L-PE
	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	2
Surge protection fault message	Optical, remote indicator contact

### Additional descriptions

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

## Technical data

### Additional descriptions

Note	Max. single impulse: 100 kA (8/20 $\mu$ s)
	SPD according to AS/NZS 1768 Cat. C3

### Protective circuit

Nominal voltage $U_N$	240 V AC (TN-S)
	240 V AC (TT)
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 $I_{PE}$	$\leq 0.01$ mA
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-N)	25 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-PE)	25 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (N-PE)	100 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s (L-N)	50 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s (L-PE)	50 kA
Impulse discharge current (10/350) $\mu$ s (L-N), charge	12.5 As
Impulse discharge current (10/350) $\mu$ s (L-N), specific energy	160 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s (L-N), peak current value $I_{imp}$	25 kA
Impulse discharge current (10/350) $\mu$ s (L-PE), charge	12.5 As
Impulse discharge current (10/350) $\mu$ s (L-PE), specific energy	160 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s (L-PE), peak current value $I_{imp}$	25 kA
Impulse discharge current (10/350) $\mu$ s (N-PE), charge	50 As
Impulse discharge current (10/350) $\mu$ s (N-PE), specific energy	2500 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s (N-PE), peak current value $I_{imp}$	100 kA
Total discharge current $I_{total}$ (10/350) $\mu$ s	50 kA
Follow current interrupt rating $I_{fi}$ (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)	$\leq 1.5$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 2.5$ kV
Voltage protection level $U_p$ (N-PE)	$\leq 1.5$ kV
Residual voltage $U_{res}$ (L-N)	$\leq 1.5$ kV (at $I_n$ )
Residual voltage $U_{res}$ (L-PE)	$\leq 2.5$ kV (at $I_n$ )
Residual voltage $U_{res}$ (N-PE)	$\leq 1.5$ kV (at $I_n$ )
TOV behavior at $U_T$ (L-N)	415 V AC (5 s / withstand mode)

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

## Technical data

### Protective circuit

	457 V AC (120 min / withstand mode)
TOV behavior at $U_T$ (N-PE)	1200 V AC (200 ms / withstand mode)
Response time $t_A$	$\leq 100$ ns
Max. backup fuse with V-type through wiring	125 A (gG)
Max. backup fuse with branch wiring	315 A (gG)

### Additional technical data

Follow current quenching capacity $I_{fi}$ (L-N)	100 kA (264 V AC)
Short-circuit current rating $I_{SCCR}$	100 kA (264 V AC)

### Indicator/remote signaling

Switching function	Changeover 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 connection
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
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>

### UL specifications

SPD Type	2CA
Maximum continuous operating voltage MCOV	350 V AC

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

## Technical data

### UL specifications

Nom. voltage	240 V AC
Rated load current $I_L$	50 A
Mode of protection	L-N
	L-G
	N-G
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Voltage protection rating VPR (L-N)	1500 V
Voltage protection rating VPR (L-G)	1500 V
Voltage protection rating VPR (N-G)	1200 V
Nominal discharge current $I_n$	20 kA
Short-circuit current rating (SCCR)	50 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	3 ... 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	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

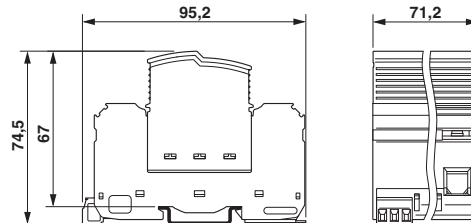
## Drawings

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

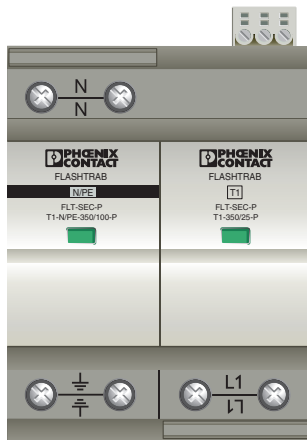
Pictogram



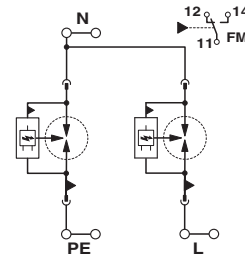
Dimensional drawing



Product drawing



Circuit diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	27130802
eCl@ss 11.0	27130802
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130802
eCl@ss 9.0	27130802

### ETIM

ETIM 4.0	EC000381
ETIM 6.0	EC000381

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

## Classifications

### ETIM

ETIM 7.0	EC000381
----------	----------

### UNSPSC

UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals


#### Approvals

CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IEC60384-14 / EAC / DNV GL / cULus Recognized

#### Ex Approvals

### Approval details

CCA	NTR-NL 7726
-----	-------------

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
---------------	---	---	---------------

KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	71-106982
-----------	---	---	-----------

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
----------------	---	---	---------------

# Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

## Approvals

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	NL-56588
-----------------	--	---	----------

EAC			RU C-DE.*09.B.00169
-----	--	--	---------------------

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE000040S
--------	--	---	------------

cULus Recognized			
------------------	--	--	--

## Accessories

### Accessories

### Device marking

Label - EML (20XE)R - 0803452



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: continuous x 20 mm

Label - EML (20XE)R YE - 0803453



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: continuous x 20 mm

## Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

### Accessories

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 size: 18 x 5 mm, Number of individual labels: 5

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 size: 18 x 5 mm, Number of individual labels: 5

### 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

### 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 size: 18 x 5 mm, Number of individual labels: 5

## Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

### 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 size: 18 x 5 mm, Number of individual labels: 5

---

### 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

---

### 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 size: 5 x 4.5 mm, Number of individual labels: 120

---

### Spare parts

Type 1 surge protection plug - FLT-SEC-P-T1-350/25-P - 2905422



Replacement plug for lightning current arresters from the FLASHTRAB SEC PLUS 350 product range, for L-N and L-PEN paths.

## Type 1+2 combined lightning current and surge arrester - FLT-SEC-P-T1-1S-350/25-FM - 2905415

### Accessories

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.