

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

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 documentation. Our General Terms of Use for Downloads are valid.



Plug-in lightning current arrester, in accordance with Type 1/Class I, for 3-phase power supply networks, with separate N and PE (L1, L2, L3, PE, N).

## Your advantages

- Surge protection family for universal use with optimum energy coordination from the lightning current arrester to the device protection
- Easy to maintain due to consistently pluggable protection modules
- Excellent level of information provided by mechanical/visual status indicator and remote indication contact
- Optimum protective effect in the event of high-energy lightning currents, thanks to spark gap technology with low residual voltage characteristic
- Low voltage protection level for direct protection of end devices in the main distribution area

## Commercial Data

Item number	2905421
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	CL1171
Catalog Page	Page 37 (C-4-2019)
GTIN	4046356950114
Weight per Piece (including packing)	1,550 g
Weight per Piece (excluding packing)	1,371 g
Customs tariff number	85363010
Country of origin	DE

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## Technical Data

### Notes

#### General

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

### Product properties

IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
IEC power supply system	TN-S
	TT
Type	DIN rail module, two-section, divisible
Product type	Combination type
Product family	SEC Family
Number of positions	4
Surge protection fault message	Optical, remote indicator contact

#### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
-------------------------	---------------

#### Indicator/remote signaling

Connection name	Remote fault indicator contact
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 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

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester

2905421

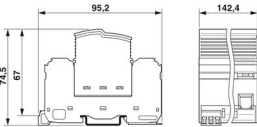
<https://www.phoenixcontact.com/pc/products/2905421>

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

## Remote fault indicator contact

Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
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

## Dimensions

Dimensional drawing	
Width	142.4 mm
Height	95.2 mm
Depth	74.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	8 Div.

## Material specifications

Color	light grey RAL 7035
	traffic grey A RAL 7042
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA6.6-FR 20% GF
	PBT-FR
Material group	I
Housing material	PA 6.6-FR 20 % GF
	PBT-FR

## Mechanical properties

### Mechanical data

Open side panel	No
-----------------	----

## Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Direction of action	3L-N & N-PE
Nominal voltage $U_N$	240/415 V AC (TN-S)

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

	240/415 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 $I_{PE}$	≤ 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
Maximum discharge current $I_{max}$ (8/20) μs (L-N)	50 kA
Maximum discharge current $I_{max}$ (8/20) μs (L-PE)	50 kA
Impulse discharge current (10/350) μs (L-N), charge	12.5 As
Impulse discharge current (10/350) μs (L-N), specific energy	160 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	160 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 $I_n$ )
Residual voltage $U_{res}$ (L-PE)	≤ 2.5 kV (at $I_n$ )
Residual voltage $U_{res}$ (N-PE)	≤ 1.5 kV (at $I_n$ )
TOV behavior at $U_T$ (L-N)	415 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	125 A (gG)
Max. backup fuse with branch wiring	315 A (gG)

## Additional technical data

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

## Environmental and real-life conditions

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## 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)

## Approval data

### UL specifications

Maximum continuous operating voltage MCOV (L-L)	700 V AC
Maximum continuous operating voltage MCOV (L-N)	350 V AC
Maximum continuous operating voltage MCOV (L-G)	350 V AC
Maximum continuous operating voltage MCOV (N-G)	350 V AC
Short-circuit current rating (SCCR)	50 kA
Voltage protection rating VPR (L-L)	2000 V
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
Mode of protection	L-L L-N L-G N-G
Nominal voltage	240/415 V AC
Rated load current $I_L$	50 A
Power distribution system	Wye
Nominal frequency	50/60 Hz
SPD Type	2CA

### UL indicator/remote signaling

AC operating voltage	125 V AC
AC operating current	1 A AC

### UL connection data

Tightening torque	40 lb <sub>F</sub> ·in.
Conductor cross section AWG	3 ... 2

## Standards and regulations

Standards/specifications	IEC 61643-11
--------------------------	--------------

EN 61643-11

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

Standards/specifications	EN 61643-11
--------------------------	-------------

## Mounting

Mounting type	DIN rail: 35 mm
---------------	-----------------

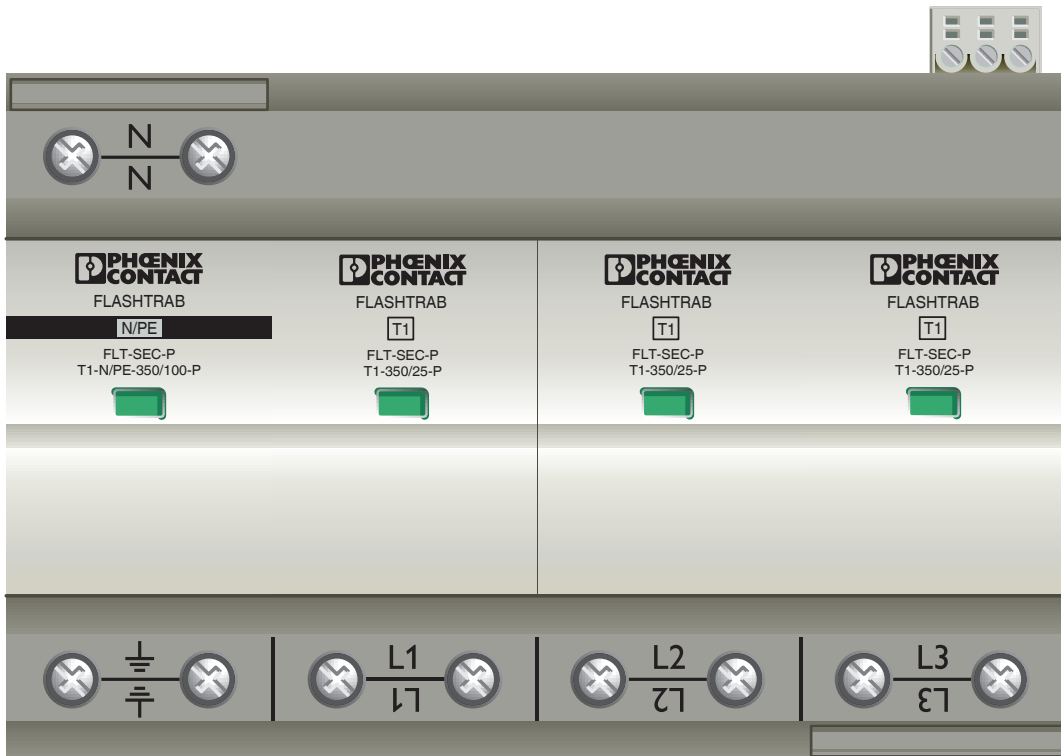
# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester

2905421

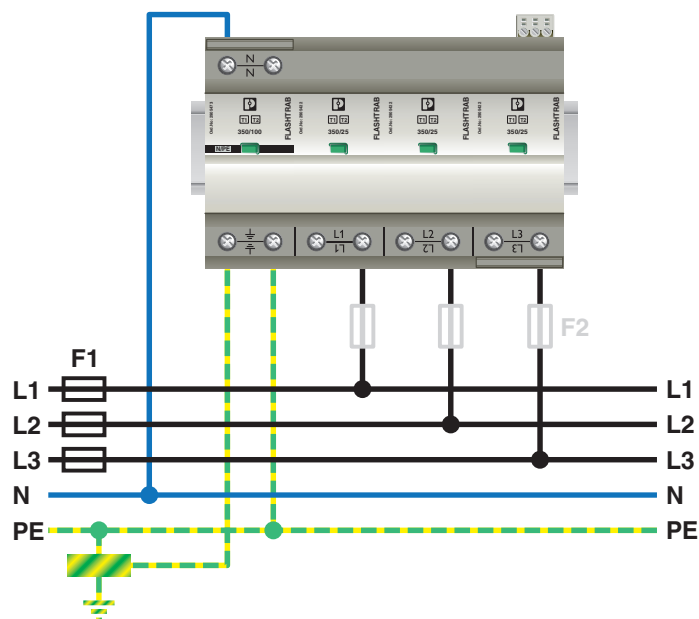
<https://www.phoenixcontact.com/pc/products/2905421>

## Drawings

### Product drawing



### Application drawing



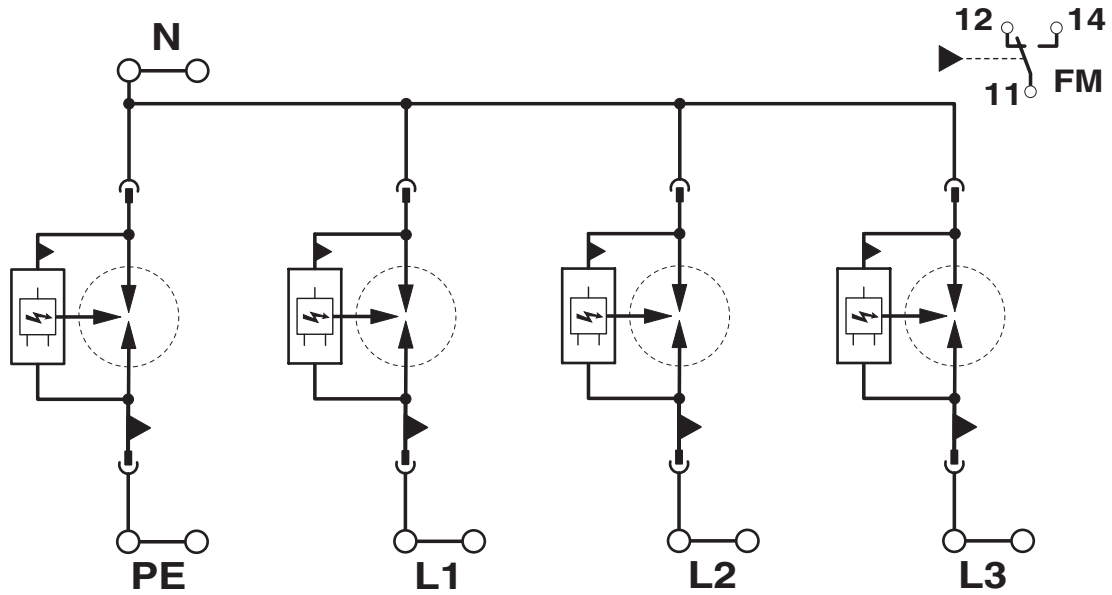
# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



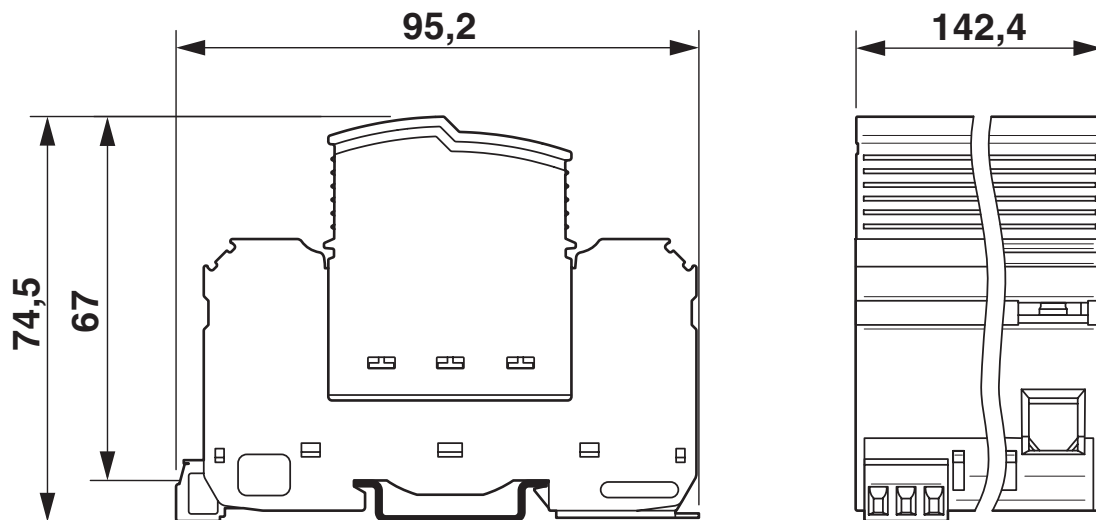
2905421

<https://www.phoenixcontact.com/pc/products/2905421>

Circuit diagram



Dimensional drawing





# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## Approvals



**cUL Recognized**  
Approval ID: FILE E 330181



**UL Recognized**  
Approval ID: FILE E 330181



**IECEE CB Scheme**  
Approval ID: NL-56588



**EAC**  
Approval ID: RU C-DE.\*09.B.00169

### CCA

Approval ID: NTR-NL 7726

Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
-----------------------	-----------------------	-------------------	-----------------------------

-

-



**KEMA-KEUR**  
Approval ID: 71-106982



**DNV GL**  
Approval ID: TAE000040S

Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
-----------------------	-----------------------	-------------------	-----------------------------

-

-

**cULus Recognized**

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## Classifications

### ECLASS

ECLASS-9.0	27130802
ECLASS-10.0.1	27130802
ECLASS-11.0	27130802

### ETIM

ETIM 8.0	EC000381
----------	----------

### UNSPSC

UNSPSC 21.0	39121600
-------------	----------

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## Accessories

### CLIPFIX 35 - End clamp

3022218

<https://www.phoenixcontact.com/pc/products/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

---

### X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/pc/products/0811228>



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

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## EML (20XE)R - Label

0803452

<https://www.phoenixcontact.com/pc/products/0803452>



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

---

## EML (20XE)R YE - Label

0803453

<https://www.phoenixcontact.com/pc/products/0803453>



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

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

## ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/pc/products/2809128>



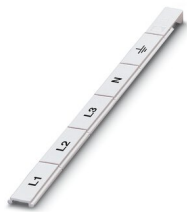
Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

---

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

2749576

<https://www.phoenixcontact.com/pc/products/2749576>



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

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

2749589

<https://www.phoenixcontact.com/pc/products/2749589>



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

---

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

0803595

<https://www.phoenixcontact.com/pc/products/0803595>



Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5 x 4.5 mm, Number of individual labels: 120

# FLT-SEC-P-T1-3S-350/25-FM - Type 1+2 combined lightning current and surge arrester



2905421

<https://www.phoenixcontact.com/pc/products/2905421>

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

2905422

<https://www.phoenixcontact.com/pc/products/2905422>



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

---

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

2905473

<https://www.phoenixcontact.com/pc/products/2905473>



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

---

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

[info@phoenixcontact.com](mailto:info@phoenixcontact.com)