

# FLT-SEC-T1+T2-3C-350/25-FM - Type 1+2 special combined lightning current and surge arrester



2905469

<https://www.phoenixcontact.com/pc/products/2905469>

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Plug-in lightning and surge arrester combination, in accordance with Type 1+2/Class I+II, for 3-phase power supply networks, with combined PE and N installed in one conductor (L1, L2, L3, PEN).

## 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
- Maximum protection against dynamic overvoltages for sensitive devices, thanks to direct coordination with varistor arresters connected in parallel

## Commercial Data

Item number	2905469
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	CL1241
Catalog Page	Page 42 (C-4-2019)
GTIN	4046356950640
Weight per Piece (including packing)	1,067.1 g
Weight per Piece (excluding packing)	874.5 g
Customs tariff number	85363030
Country of origin	DE

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## Technical Data

### Product properties

IEC test classification	I + II
	T1 + T2
EN type	T1 + T2
IEC power supply system	TN-C
Type	DIN rail module, two-section, divisible
Product type	Arrester combination
Product family	SEC Family
Number of positions	3
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)
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### 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
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

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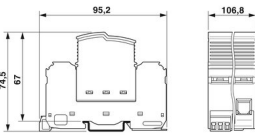


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Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

## Dimensions

Dimensional drawing	
Width	106.8 mm
Height	95.2 mm
Depth	74.5 mm
Horizontal pitch	6 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
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## Protective circuit

Mode of protection	L-PEN
Direction of action	3L-N/PE
Nominal voltage $U_N$	240/415 V AC (TN-C)
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)
Nominal discharge current $I_n$ (8/20) $\mu$ s	25 kA
Impulse discharge current (10/350) $\mu$ s, charge	12.5 As
Impulse discharge current (10/350) $\mu$ s, specific energy	160 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	25 kA
Follow current interrupt rating $I_{fi}$	25 kA (264 V AC)

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	3 kA (350 V AC)
Short-circuit current rating $I_{SCCR}$	25 kA (264 V AC)
	3 kA (350 V AC)
Voltage protection level $U_p$	$\leq 1.5$ kV
Residual voltage $U_{res}$	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1.2$ kV (at 10 kA)
	$\leq 1$ kV (at 5 kA)
	$\leq 0.9$ kV (at 3 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s	$\leq 1.5$ kV
TOV behavior at $U_T$	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
Response time $t_A$	$\leq 25$ ns
Max. backup fuse with V-type through wiring	125 A (gG)
Max. backup fuse with branch wiring	315 A (gG)

## Additional technical data

Maximum discharge current $I_{max}$ (8/20) $\mu$ s	100 kA
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## 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
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000$ m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm$ X, $\pm$ Y, $\pm$ Z)
Vibration (operation)	5g (5 - 500 Hz/2.5 h/X, Y, Z)

## Approval data

### UL specifications

Maximum continuous operating voltage MCOV (L-L)	528 V AC
Maximum continuous operating voltage MCOV (L-G)	264 V AC
Short-circuit current rating (SCCR)	50 kA
Voltage protection rating VPR (L-L)	2000 V
Voltage protection rating VPR (L-G)	1200 V
Nominal discharge current $I_n$	20 kA
Mode of protection	L-L
	L-G
Nominal voltage	240 V AC
	240/415 V AC
Rated load current $I_L$	50 A
Power distribution system	Delta

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	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
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## EN 61643-11

Standards/specifications	EN 61643-11
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## Mounting

Mounting type	DIN rail: 35 mm
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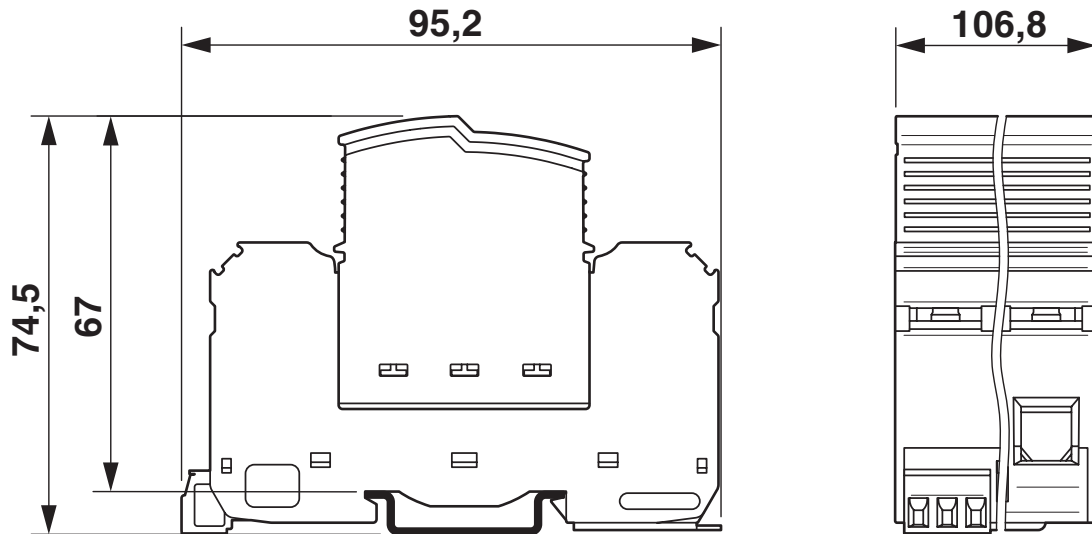
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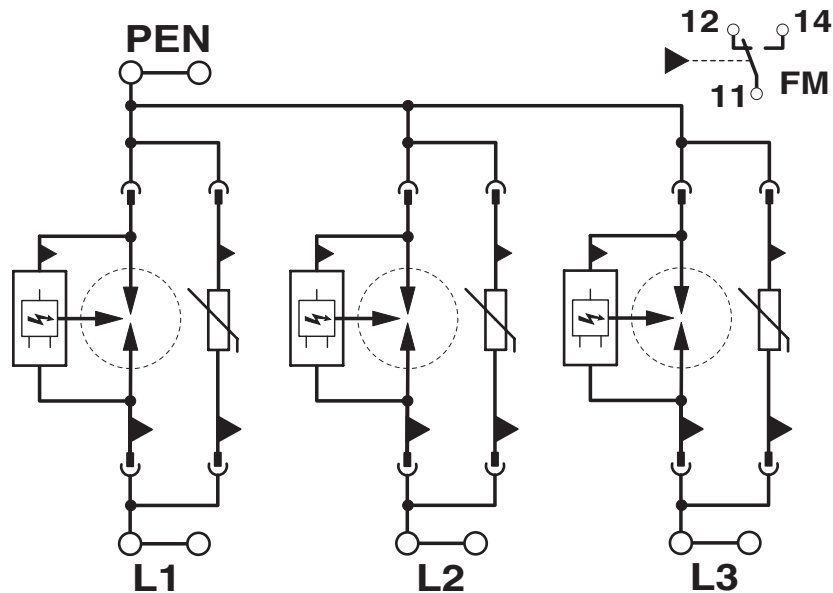
<https://www.phoenixcontact.com/pc/products/2905469>

## Drawings

Dimensional drawing



Circuit diagram



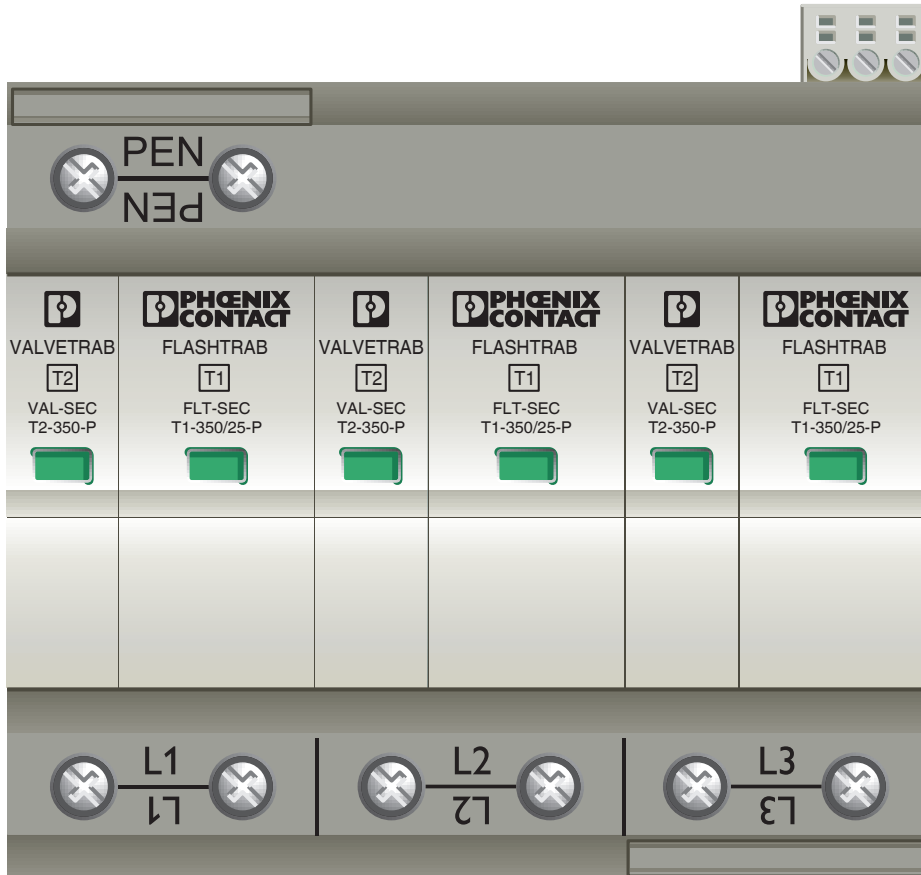
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Product drawing



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## Approvals



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



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



**IECEE CB Scheme**  
Approval ID: NL-58252



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

### CCA

Approval ID: NTR-NL 7736

Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
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**KEMA-KEUR**  
Approval ID: 71-106983



**DNV GL**  
Approval ID: TAE000040S

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



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## Classifications

### ECLASS

ECLASS-9.0	27130808
ECLASS-10.0.1	27130808
ECLASS-11.0	27130808

### ETIM

ETIM 8.0	EC001457
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental Product Compliance

China RoHS

Environmentally Friendly Use Period = 50 years

For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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## 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



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### 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



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## 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

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## 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

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## ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

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



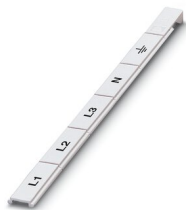
Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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## 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

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## 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

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## 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

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## FLT-SEC-T1-350/25-P - Type 1/2 surge protection plug

2905471

<https://www.phoenixcontact.com/pc/products/2905471>



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

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## VAL-SEC-T2-350-P - Type 2 surge protection plug

2905346

<https://www.phoenixcontact.com/pc/products/2905346>



Replacement plug for surge arresters from the VALVETRAB SEC product range for L-N and L-PEN paths.

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