

# FLT-CP-2C-350 - Type 1+2 special combined lightning current and surge arrester



2859770

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Pluggable lightning current and surge arrester combination, in acc. with typ 1+2 / Class I+II / B+C arresters. Arresters coordinated following the AEC principle, for 2-phase power supply networks with PE and N (L1, L2, PEN) installed in one cable.

## Commercial data

Item number	2859770
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CL1211
Catalog page	Page 37 (C-6-2013)
GTIN	4017918956493
Weight per piece (including packing)	671.5 g
Weight per piece (excluding packing)	635.41 g
Customs tariff number	85363030
Country of origin	DE



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## Technical data

### Product properties

Product type	Arrester combination
IEC test classification	I + II
	T1 + T2
EN type	T1 + T2
IEC power supply system	TN-C
Type	DIN rail module, two-section, divisible
Number of positions	2
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 terminal blocks
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section rigid	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG	13 ... 2

### Remote fault indicator contact

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 rigid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>



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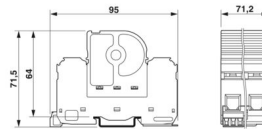
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Conductor cross section AWG

28 ... 16

## Dimensions

Dimensional drawing



Width

71.2 mm

Height

95 mm

Depth

71.5 mm

Horizontal pitch

4 Div.

## Material specifications

Flammability rating according to UL 94

V - 0

CTI value of material

600

Insulating material

PA 6.6/PBT

Material group

I

Housing material

PBT

## Mechanical properties

Mechanical data

Open side panel

No

## Protective circuit

Mode of protection

L-PEN

Direction of action

2L-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)

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)



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	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) μs	≤ 1.5 kV
TOV behavior at U <sub>T</sub>	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
Response time t <sub>A</sub>	≤ 25 ns
Max. backup fuse with V-type through wiring	125 A (gG)
Max. backup fuse with branch wiring	315 A (gG)

## 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	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (5 - 500 Hz/2.5 h/X, Y, Z)

## Approvals

### UL specifications

Maximum continuous operating voltage MCOV (L-L)	528 V AC
Maximum continuous operating voltage MCOV (L-G)	264 V AC
Nominal discharge current I <sub>n</sub> (L-L)	20 kA
Nominal discharge current I <sub>n</sub> (L-G)	20 kA
Mode of protection	L-L
	L-G
Nominal voltage	240/415 V AC
Power distribution system	Delta
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	2450 V
Measured limiting voltage MLV (L-G)	1340 V
Follow current (N-G)	10 kA (264 V AC)
SPD Type	4CA

### UL indicator/remote signaling

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	12 ... 2



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## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	DIN VDE 0110-1 / IEC 60664-1 / IEC 61643-1
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

## Mounting

Mounting type	DIN rail: 35 mm
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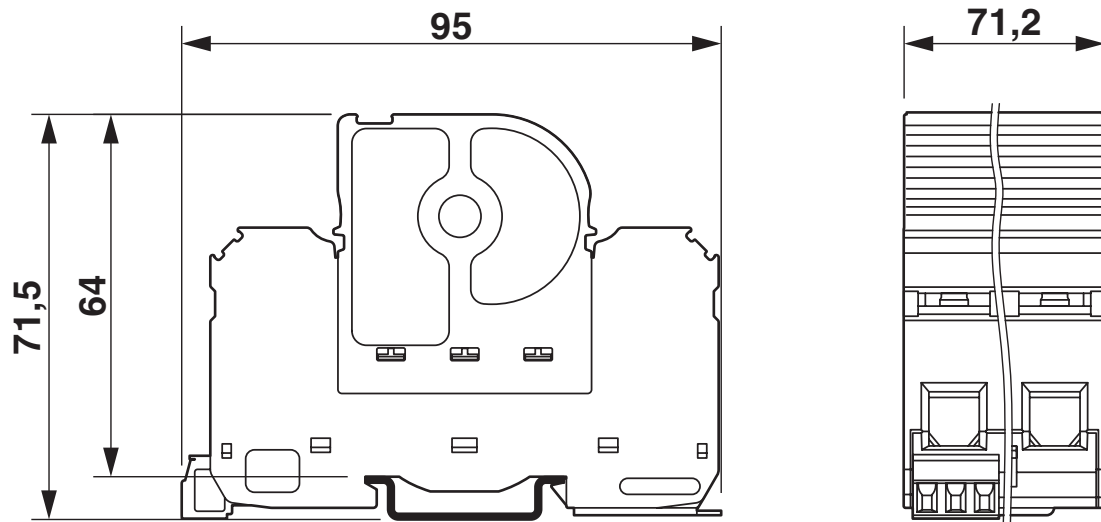
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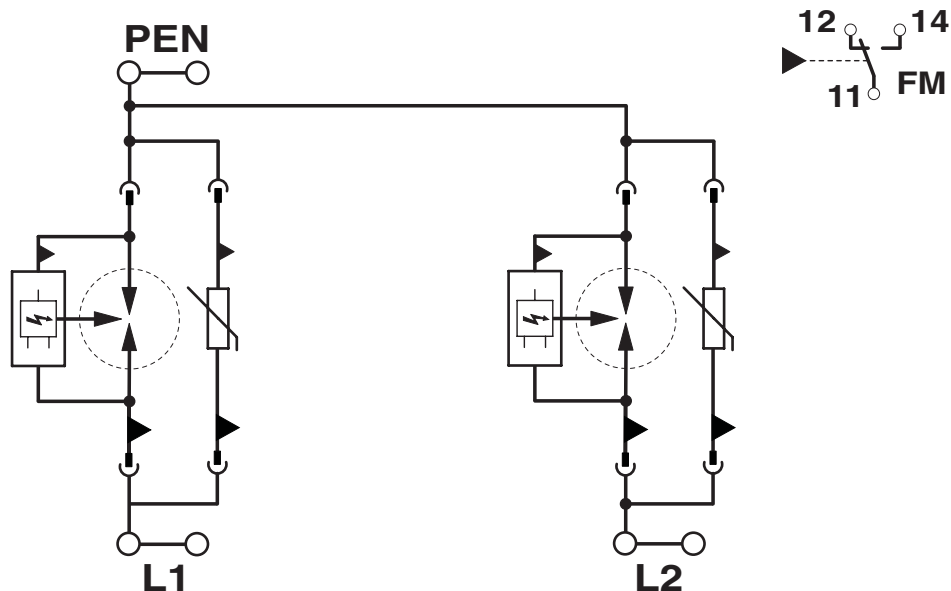
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## Drawings

Dimensional drawing



Circuit diagram





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## Environmental product compliance

China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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