

FLT-SEC-H-T1-1C-440/25-FM - Type 1+2 combined lightning current and surge arrester



2907259

<https://www.phoenixcontact.com/us/products/2907259>

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Plug-in lightning current arrester, in accordance with Type 1/Class I, with integrated surge-proof fuse, for 1-phase power supply networks with combined PE and N installed in one conductor (L1, 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
- Integrated lightning-current-proof backup fuse for a low overall voltage protection level and space savings of up to 80% compared to an external backup fuse

Commercial data

Item number	2907259
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CL1163
Catalog page	Page 34 (C-4-2019)
GTIN	4055626176000
Weight per piece (including packing)	649.2 g
Weight per piece (excluding packing)	660 g
Country of origin	DE

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Technical data

Product properties

Product type	Combination type
Product family	SEC Family
IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
IEC power supply system	TN
	IT
Type	DIN rail module, two-section, divisible
Number of positions	1
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 ² ... 35 mm ²
Conductor cross section rigid	2.5 mm ² ... 35 mm ²
Conductor cross section AWG	13 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Remote fault indicator contact

Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2

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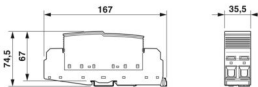


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Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

Dimensions

Dimensional drawing	
Width	35.5 mm
Height	167 mm
Depth	74.5 mm
Horizontal pitch	2 Div.

Material specifications

Color (Male connector)	light grey (RAL 7035)
Color (Base element)	gray (RAL 7042)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6-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-N L-PE L-PEN N-PE (4+0)
Direction of action	1L-N/PE
Nominal voltage U_N	400 V AC (TN) 400 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	440 V AC
Residual current I_{PE}	$\leq 5 \mu A$

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Nominal discharge current I_n (8/20) μ s	25 kA
Maximum discharge current I_{max} (8/20) μ s	50 kA
Impulse discharge current (10/350) μ s, charge	12.5 As
Impulse discharge current (10/350) μ s, specific energy	160 kJ/ Ω
Impulse discharge current (10/350) μ s, peak value I_{imp}	25 kA
Follow current interrupt rating I_{fi}	50 kA
Short-circuit current rating I_{SCCR}	50 kA
Voltage protection level U_p	≤ 2.5 kV
Residual voltage U_{res}	≤ 2.1 kV (at I_n)
	≤ 2.8 kV (at 50 kA)
	≤ 1.7 kV (at 12.5 kA)
	≤ 1.5 kV (at 5 kA)
	≤ 1.35 kV (at 2.5 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) μ s	≤ 2.5 kV
TOV behavior at U_T	580 V AC (5 s / withstand mode)
	760 V AC (120 min / withstand mode)
	1640 V AC (200 ms / safe failure mode)
Response time t_A	≤ 100 ns

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 %

Standards and regulations

Standards/specifications	IEC 61643-11
Note	2011

EN 61643-11

Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	DIN rail: 35 mm
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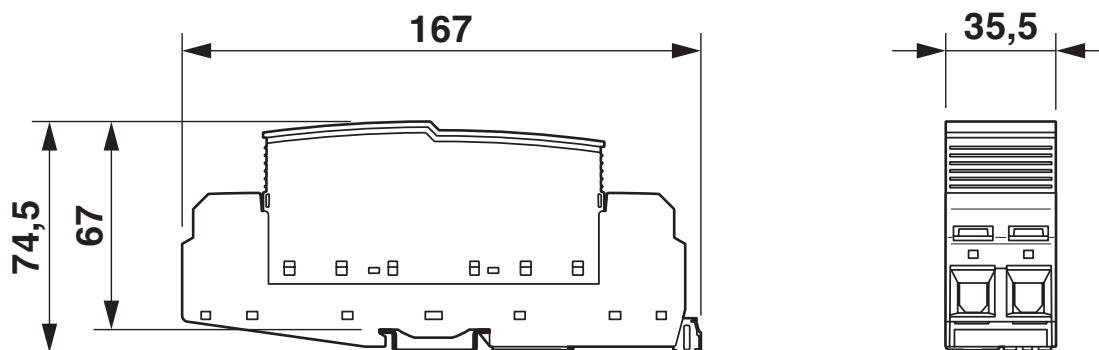
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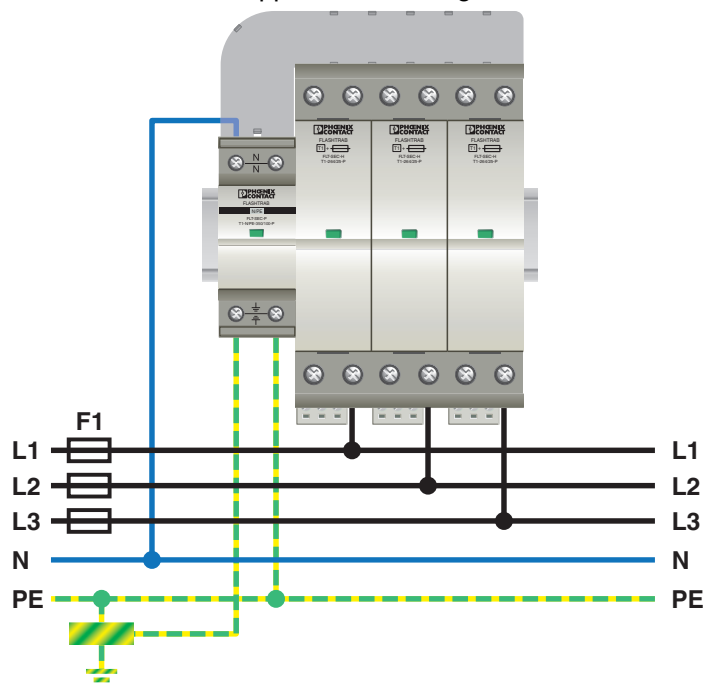
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Drawings

Dimensional drawing



Application drawing



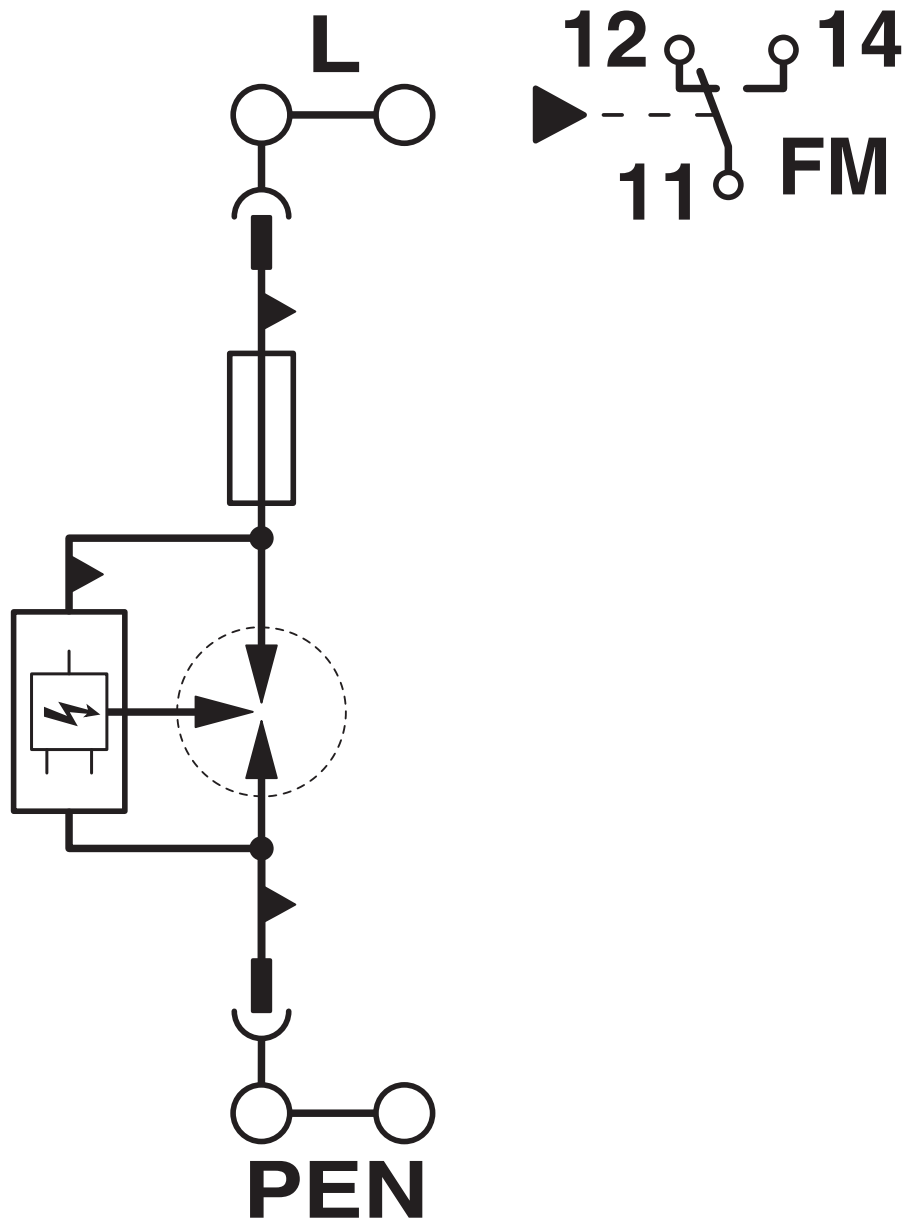
Structure of a 3+1 circuit for TN-S/TT systems with an N/PE spark gap and wiring bridge.

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Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907259>



IECEE CB Scheme
Approval ID: NL-41433



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

CCA
Approval ID: NTR-NL 7490



KEMA-KEUR
Approval ID: 2188437.01

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Classifications

ECLASS

ECLASS-11.0	27130802
ECLASS-13.0	27171201

ETIM

ETIM 9.0	EC000381
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	N,N-dimethylacetamide(CAS: 127-19-5)
SCIP	fb959e75-1acb-4ac2-9c1b-2bffe9efcb66

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Accessories

i Note: Applying some accessories below might limit this product.

MPB 18/1-8/35 - Wiring bridge

2908704

<https://www.phoenixcontact.com/us/products/2908704>



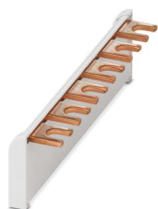
Wiring bridge for modules with 17.5 mm connecting pitch, 1-phase, 8-pos., 35 mm² cross section, and mounted end caps

i Max. current carrying capacity: 125 A

MPB 18/1-6/35 - Wiring bridge

2908705

<https://www.phoenixcontact.com/us/products/2908705>



Wiring bridge for modules with 17.5 mm connecting pitch, 1-phase, 6-pos., 35 mm² cross section, and mounted end caps

i Max. current carrying capacity: 125 A

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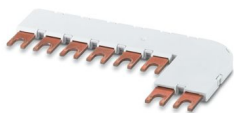
<https://www.phoenixcontact.com/us/products/2907259>

FLT-SEC-H MPB-3+1 - Wiring bridge

2910501

<https://www.phoenixcontact.com/us/products/2910501>

Wiring bridge for connecting three FLASHTRAB SEC HYBRID lightning arresters with an N/PE spark gap to a 3+1 circuit for TN-S-/TT systems. Connecting pitch of 17.5 mm, 1-phase, 8-pos., 35 mm² cross section with stable plastic housing for the required touch proofness when used as neutral conductor bridge.



CLIPFIX 35 - End bracket

3022218

<https://www.phoenixcontact.com/us/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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EML (20XE)R - Label

0803452

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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, Number of individual labels: 1

EML (20XE)R YE - Label

0803453

<https://www.phoenixcontact.com/us/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, Number of individual labels: 1

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X-PEN 0,35 - Marker pen

0811228

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



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

SZK PZ2 VDE - Screwdriver

1206463

<https://www.phoenixcontact.com/us/products/1206463>



Screwdriver, PZ crosshead, VDE insulated, size: PZ 2 x 100 mm, 2-component grip, with non-slip grip

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FLT-SEC-H-T1-440/25-P - Type 1 surge protection plug

2907261

<https://www.phoenixcontact.com/us/products/2907261>

Replacement plug for lightning current arresters from the FLASHTRAB SEC HYBRID 440 product range, for L-N and L-PEN paths.



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