FLT-SEC-ZP2-3S-255/7.5 - Type 1+2+3 combined lightning current and surge arresters

1168940

https://www.phoenixcontact.com/de/produkte/1168940

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Lightning current arrester, in acc. with type 1/class I, for 3-phase power supply networks, with separate N and PE (L1, L2, L3, PE, N). Suitable for equipotential bonding in systems without external lightning protection with and without overhead line supply. For mounting on 40 mm busbar systems.

Your advantages

- Universal use – fits into every meter cabinet, regardless of manufacturer, with a narrow overall width of just 27 mm
- Installation in the unmetered area with application rule VDE-AR-N 4100 compliance – confirmed through VDE approval
- Mounts securely and without tools through a universal interlock on a 5 mm and 10 mm rail thickness
- Integration into building technology systems with optional remote signaling module

Technical data

Product properties

Product type	Combination type
Product family	SEC Family
IEC test classification	I + II + III
	T1 + T2 + T3
EN type	T1 + T2 + T3
IEC power supply system	TN-S
	TT
Type	Busbar module, one-piece
Number of positions	4
Surge protection fault message	visual, remote signaling via optional module

Insulation characteristics

Overvoltage category	IV
Pollution degree	2

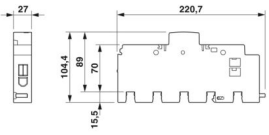
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)

Connection data

Connection method	Screw connection
Screw thread	M6
Tightening torque	2.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm² ... 35 mm²
Conductor cross section rigid	2.5 mm² ... 50 mm²

Dimensions

Dimensional drawing	
Width	27 mm
	47 mm (with spacer lid)
	52 mm (with spacer lid)
Height	220.7 mm
Depth	104.4 mm
Horizontal pitch	1.5 Div.

Material specifications

Color	light grey (RAL 7035)
Flammability rating according to UL 94	V-0
CTI value of material	175
Insulating material	PA 6.6
	PC
Material group	IIIa
Housing material	PA 6.6
	PC

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	230/400 V AC ±10 % (TN-S)
	230/400 V AC ±10 % (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	255 V AC
Residual current I_{PE}	≤ 5 µA
Nominal discharge current I_n (8/20) µs (L-N)	20 kA
Nominal discharge current I_n (8/20) µs (L-PE)	20 kA
Nominal discharge current I_n (8/20) µs (N-PE)	80 kA
Combination wave U_{OC}	20 kV
Impulse discharge current (10/350) µs (L-N), charge	3.75 As
Impulse discharge current (10/350) µs (L-N), specific energy	15 kJ/Ω
Impulse discharge current (10/350) µs (L-N), peak current value I_{imp}	7.5 kA
Impulse discharge current (10/350) µs (L-PE), charge	3.75 As
Impulse discharge current (10/350) µs (L-PE), specific energy	15 kJ/Ω
Impulse discharge current (10/350) µs (L-PE), peak current value I_{imp}	7.5 kA
Impulse discharge current (10/350) µs (N-PE), charge	15 As
Impulse discharge current (10/350) µs (N-PE), specific energy	225 kJ/Ω
Impulse discharge current (10/350) µs (N-PE), peak current value I_{imp}	30 kA
Total discharge current I_{total} (10/350) µs	30 kA
Follow current quenching capacity I_{fi} (L-N)	25 kA
Follow current interrupt rating I_{fi} (L-PE)	25 kA
Follow current interrupt rating I_{fi} (N-PE)	100 A

Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p (L-N)	≤ 1.5 kV
Voltage protection level U_p (L-PE)	≤ 2 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
TOV behavior at U_T (L-N)	442 V AC (120 min / withstand mode)
TOV behavior at U_T (L-PE)	442 V AC (120 min / withstand mode)
	1455 V AC (200 ms / 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 branch wiring	160 A (gG)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20C (Installed)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 6000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

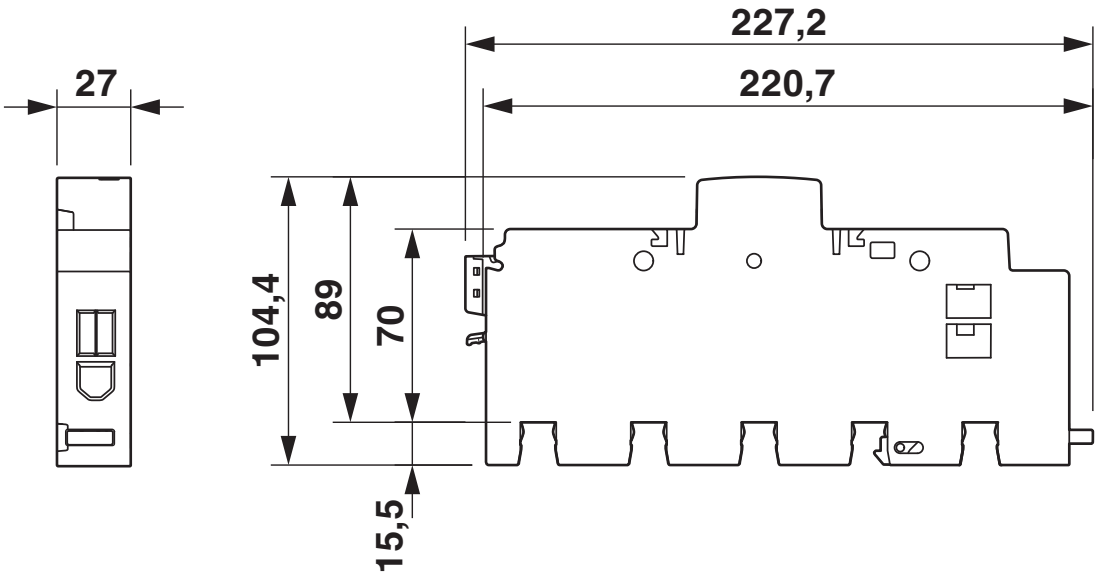
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012 + A11:2018

Mounting

Mounting type	Busbar 40 mm

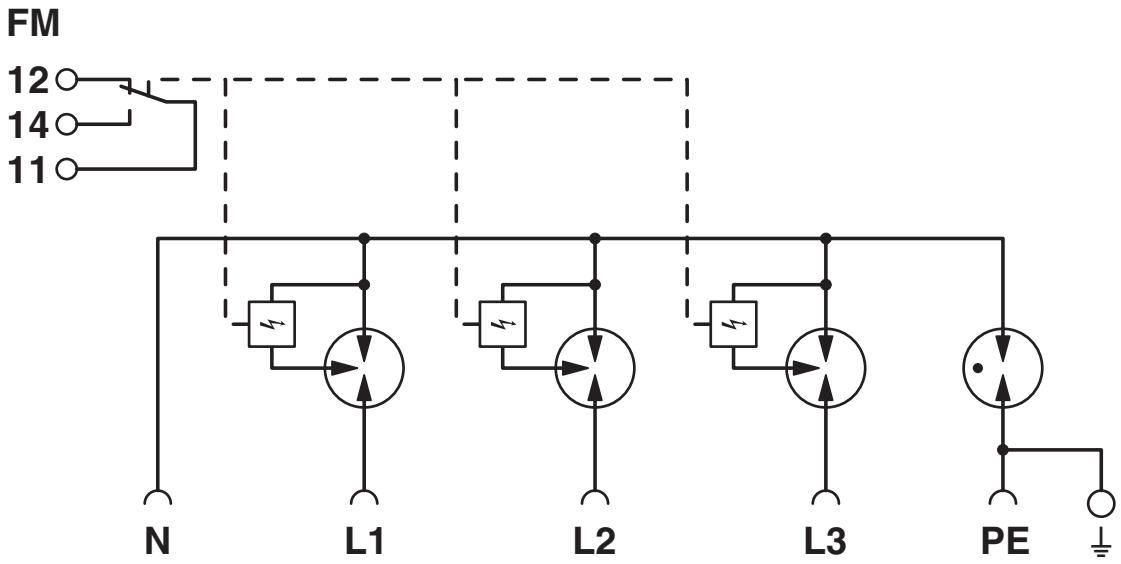
Drawings

Dimensional drawing

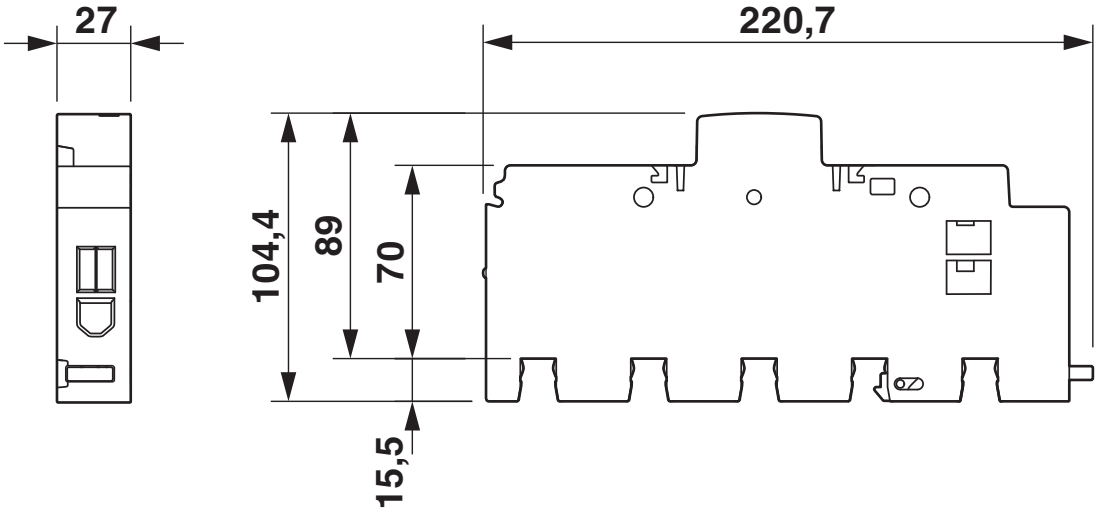


The figure shows the product with optional remote signaling “FM-MODULE”

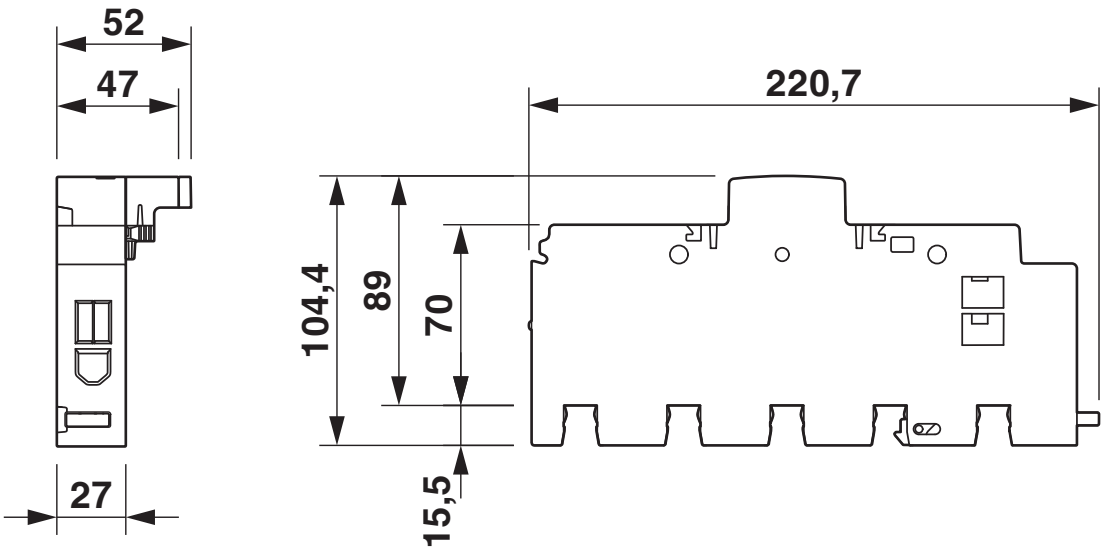
Circuit diagram



Dimensional drawing

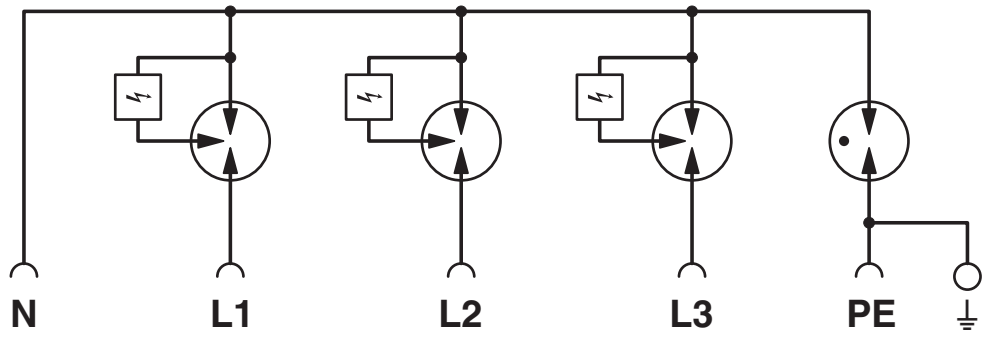


Dimensional drawing



The figure shows the product with included spacer lid

Circuit diagram



Approvals

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IECEE CB Scheme
Approval ID: NL-67563

CCA
Approval ID: NTR-NL 7853

KEMA-KEUR
Approval ID: 71-114664

VDE Zeichengenehmigung
Approval ID: 40052444

Classifications

ECLASS

ECLASS-11.0	27130802
ECLASS-13.0	27171201

ETIM

ETIM 9.0	EC000381

UNSPSC

UNSPSC 21.0	39121600

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.)	Perfluorobutane sulfonic acid (PFBS) and its salts(CAS: n/a)

EF3.0 Climate Change

CO2e kg	12,1 kg CO2e

Accessories

X-PEN 0,35 - Marker pen

0811228

https://www.phoenixcontact.com/de/produkte/0811228



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

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/de/produkte/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

FLT-SEC-ZP2 FM-MODULE - Remote signaling module

1168947

https://www.phoenixcontact.com/de/produkte/1168947



Optional remote signaling module. Can only be used in the FLT-SEC-ZP2.

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