

Type 1+2+3 combined lightning current and surge arresters - FLT-SEC-ZP2-3S-255/12.5



1168943

<https://www.phoenixcontact.com/gb/products/1168943>

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Lightning arrester, in accordance with Type 1 / Class I, for 3-phase power supply networks, with separate N and PE (L1, L2, L3, PE, N). For lightning protection equipotential bonding in accordance with lightning protection levels III and IV. 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 unmetred 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

Commercial Data

Item number	1168943
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	CL1181
Product Key	CL1181
GTIN	4063151187590
Weight per Piece (including packing)	668.7 g
Weight per Piece (excluding packing)	589 g
Customs tariff number	85363090
Country of origin	DE

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Technical Data

Product properties

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
Product type	Combination type
Number of positions	4
Surge protection fault message	visual, remote signaling via optional module

Insulation characteristics

Overvoltage category	IV
Pollution degree	2

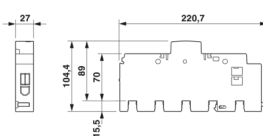
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
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Connection data

Connection method	Screw connection
Screw thread	M6
Tightening torque	2.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm ² ... 35 mm ²
Conductor cross section solid	2.5 mm ² ... 50 mm ²

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
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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
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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 $\pm 10\%$ (TN-S)
	230/400 V AC $\pm 10\%$ (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	255 V AC
Residual current I_{PE}	$\leq 5 \mu A$
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	6.25 As
Impulse discharge current (10/350) μs (L-N), specific energy	39 kJ/ Ω
Impulse discharge current (10/350) μs (L-N), peak current value I_{imp}	12.5 kA
Impulse discharge current (10/350) μs (L-PE), charge	6.25 As
Impulse discharge current (10/350) μs (L-PE), specific energy	39 kJ/ Ω
Impulse discharge current (10/350) μs (L-PE), peak current value I_{imp}	12.5 kA
Impulse discharge current (10/350) μs (N-PE), charge	25 As
Impulse discharge current (10/350) μs (N-PE), specific energy	625 kJ/ Ω
Impulse discharge current (10/350) μs (N-PE), peak current value I_{imp}	50 kA
Total discharge current I_{total} (10/350) μs	50 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

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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 (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

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

Mounting

Mounting type	Busbar 40 mm
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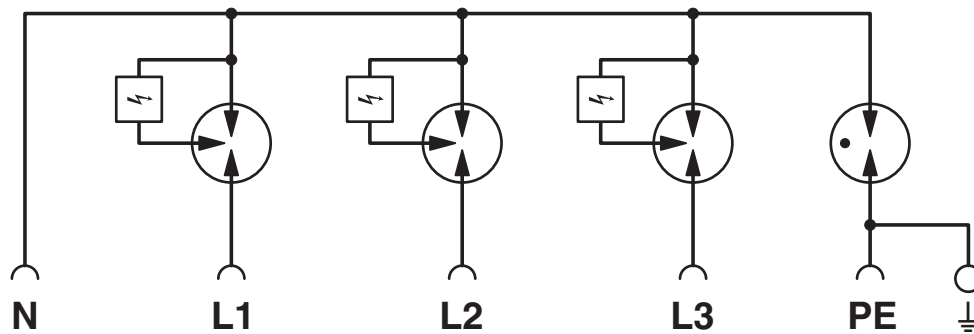
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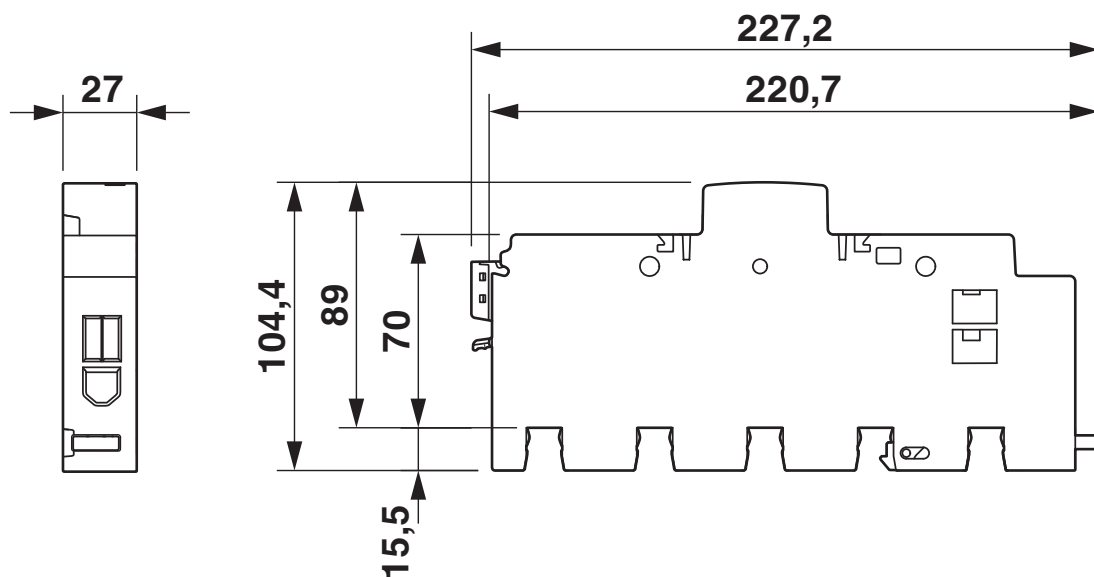
<https://www.phoenixcontact.com/gb/products/1168943>

Drawings

Circuit diagram



Dimensional drawing



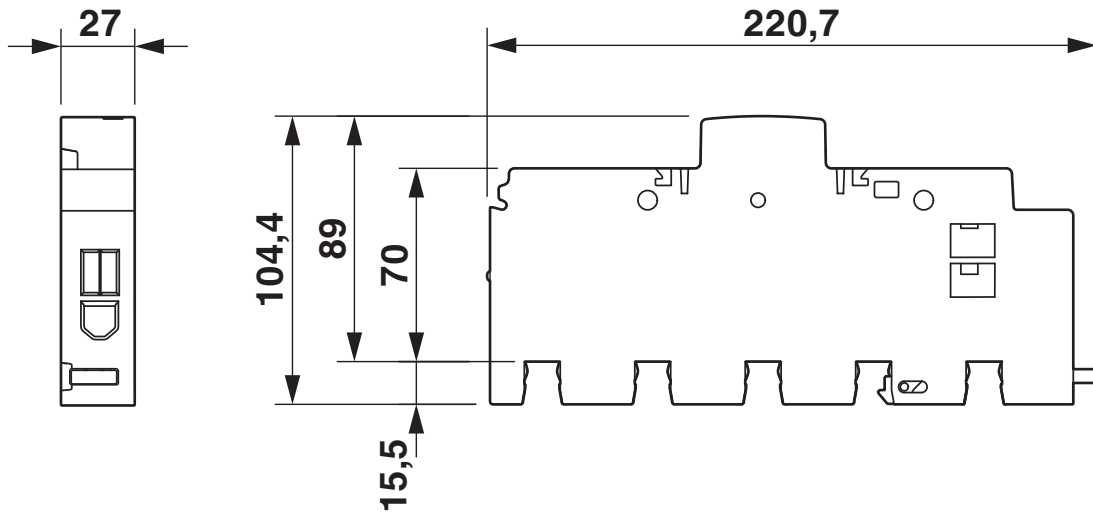
The figure shows the product with optional remote signaling "FM-MODULE"

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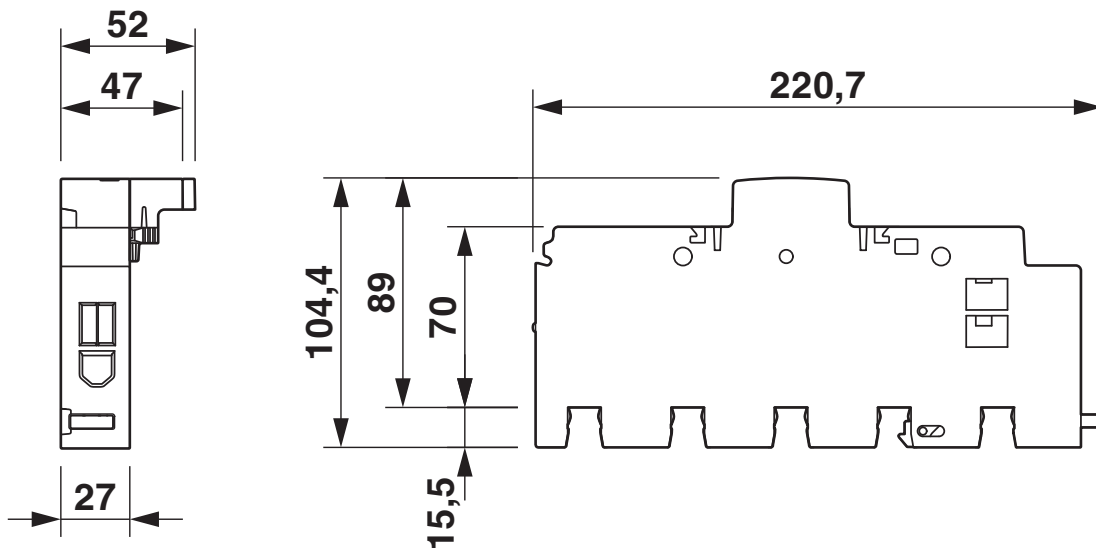
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Dimensional drawing



Dimensional drawing



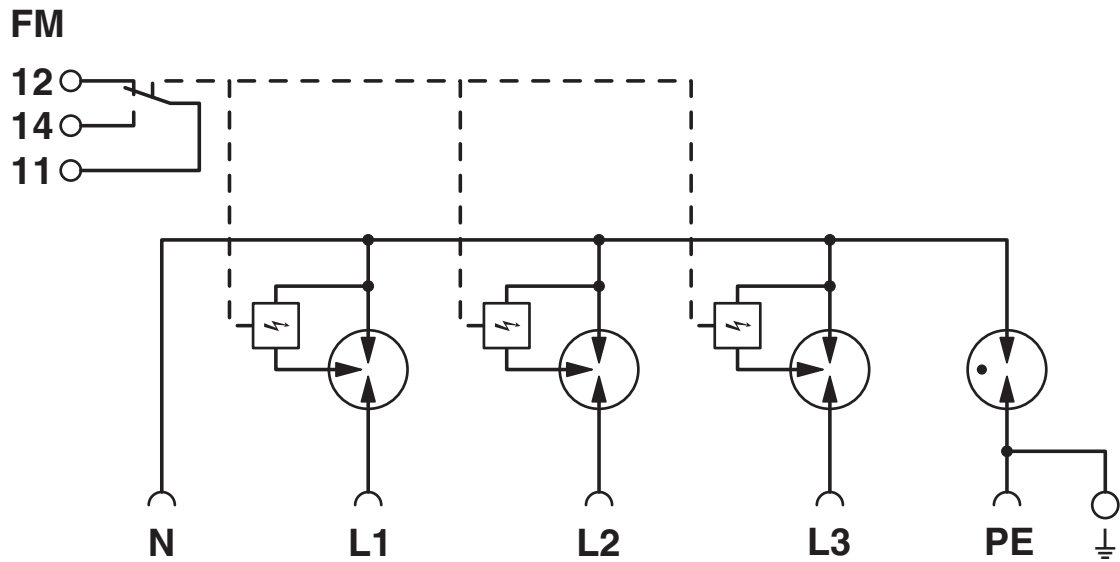
The figure shows the product with included spacer lid

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Circuit diagram



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

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Approvals



IECEE CB Scheme

Approval ID: NL-67563

CCA

Approval ID: NTR-NL 7853

Nominal Voltage U_N

Nominal Current I_N

Cross Section AWG

Cross Section mm^2

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-



KEMA-KEUR

Approval ID: 71-114664



VDE Zeichengenehmigung

Approval ID: 40052444

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Classifications

ECLASS

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

ETIM

ETIM 8.0	EC000381
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UNSPSC

UNSPSC 21.0	39121600
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Accessories

Marker pen

Marker pen - X-PEN 0,35 - 0811228

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



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

Label

Label - EML (20XE)R - 0803452

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



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

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Label

Label - EML (20XE)R YE - 0803453

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



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

Remote signaling module

Remote signaling module - FLT-SEC-ZP2 FM-MODULE - 1168947

<https://www.phoenixcontact.com/gb/products/1168947>



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

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