

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



1758651

<https://www.phoenixcontact.com/gb/products/1758651>

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Lightning current arrester according to 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 according to Lightning Protection Level III and IV. For mounting on 40 mm current rail systems. Includes a fused voltage tap with two terminal points for supplying components of an intelligent metering system.

Your advantages

- Universal application - fits into any meter cabinet regardless of manufacturer thanks to its slim design with a width of only 35.5 mm
- Installation in the pre-meter area thanks to conformity with application rule VDE-AR-N 4100 - confirmed by VDE approval
- Integrated voltage tap with Push-In technology for tool-free connection to supply a Smart Meter Gateway in the APZ and RfZ
- Tool-free and secure installation thanks to universal locking mechanism for 5 mm and 10 mm busbar thickness
- Integration into building management systems using an optional remote contact

Commercial data

Item number	1758651
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CL1181
Product key	CL1181
GTIN	4067923327047
Weight per piece (including packing)	695.2 g
Weight per piece (excluding packing)	623.2 g
Customs tariff number	85363090
Country of origin	DE

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Technical data

Product properties

Product type	Combination type
IEC test classification	I + II + III
EN type	T1 + T2 + T3
IEC power supply system	TN-S
	TT
Type	Busbar module, one-piece
Environment	Indoor
Accessibility	Accessible
End-of-life mode	OCM
Surge protection fault message	optical, remote signaling via optional module
Number of ports	One

Insulation characteristics

Overvoltage category	IV
Pollution degree (Main circuit)	2

Connection data

protection circuit (L1, L2, L3, N, PE)

Connection method	Screw connection
Screw thread	M6
Stripping length	18 mm
Conductor cross-section rigid	2.5 mm ² ... 50 mm ²
Conductor cross-section flexible	2.5 mm ² ... 35 mm ²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	2.5 mm ² ... 35 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	2.5 mm ² ... 35 mm ²
Drive size	PZ 2
Tightening torque	2.5 Nm

Voltage tap

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.2 mm ² ... 4 mm ²
Conductor cross-section flexible	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
Drive size	0,6 x 3,5

Dimensions

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Dimensional drawing	
Width	35.5 mm 47 mm (with spacer lid) 52 mm (with spacer lid)
Height	220.7 mm
Depth	104.4 mm
Horizontal pitch	2 Div.

Material specifications

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

Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Mode of protection	L-N L-PE N-PE
Nominal voltage U_N	230/400 V AC $\pm 10\%$ (TN-S) 230/400 V AC $\pm 10\%$ (TT)
Nominal frequency	50/60 Hz
Maximum continuous operating voltage U_C	255 V AC
Protective conductor current I_{PE}	$\leq 5 \mu A$
Continuous current I_C (L-N)	$\leq 10 \mu A$
Continuous current I_C (L-PE)	$\leq 10 \mu A$
Continuous current I_C (N-PE)	$\leq 20 \mu A$
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

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Impulse discharge current I_{imp} (10/350) μ s (L-N)	12.5 kA (6.25 As / 39 kJ/ Ω)
Impulse discharge current I_{imp} (10/350) μ s (L-PE)	12.5 kA (6.25 As / 39 kJ/ Ω)
Impulse discharge current I_{imp} (10/350) μ s (N-PE)	50 kA (25 As / 625 kJ/ Ω)
Total discharge current I_{Total} (10/350) μ s	50 kA
Follow current interrupt rating 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
Combination wave U_{OC}	20 kV
Front-of-wave sparkover voltage at 6 kV (1.2/50) μ s (L-N)	≤ 1.5 kV
Front-of-wave sparkover voltage at 6 kV (1.2/50) μ s (L-PE)	≤ 2 kV
Front-of-wave sparkover voltage at 6 kV (1.2/50) μ s (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)
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	315 A (gG)

Voltage tap

Rated current I_n	4 A (fast-blow)
Cartridge fuse inserts	ESKA P520.523
Nominal voltage U_N	230 V AC \pm 
Short-circuit current rating I_{SCCR}	25 kA

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

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Mounting type	Busbar 40 mm
Mounting method	fixed

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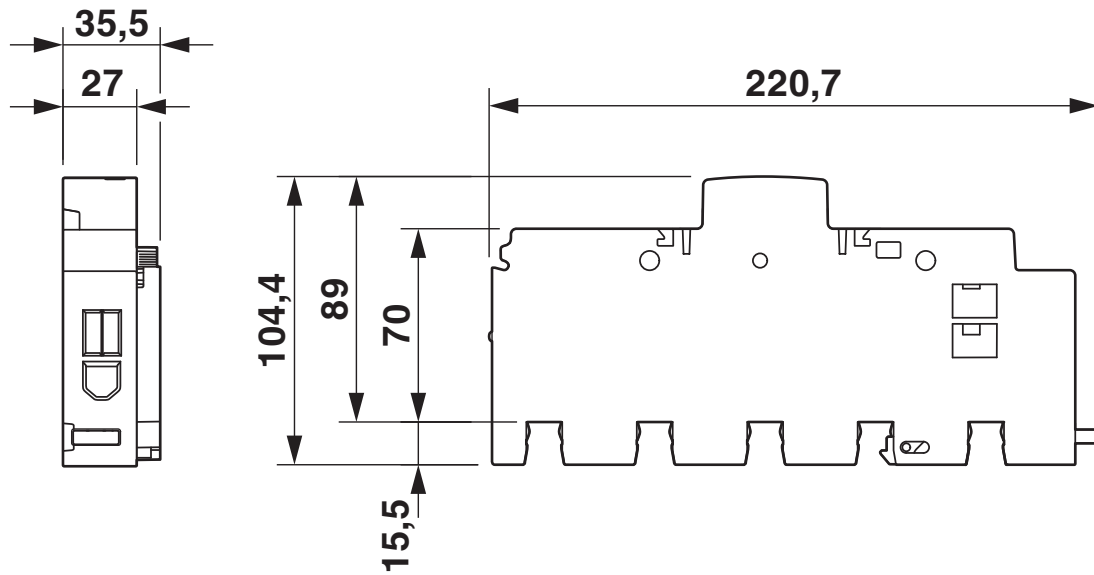


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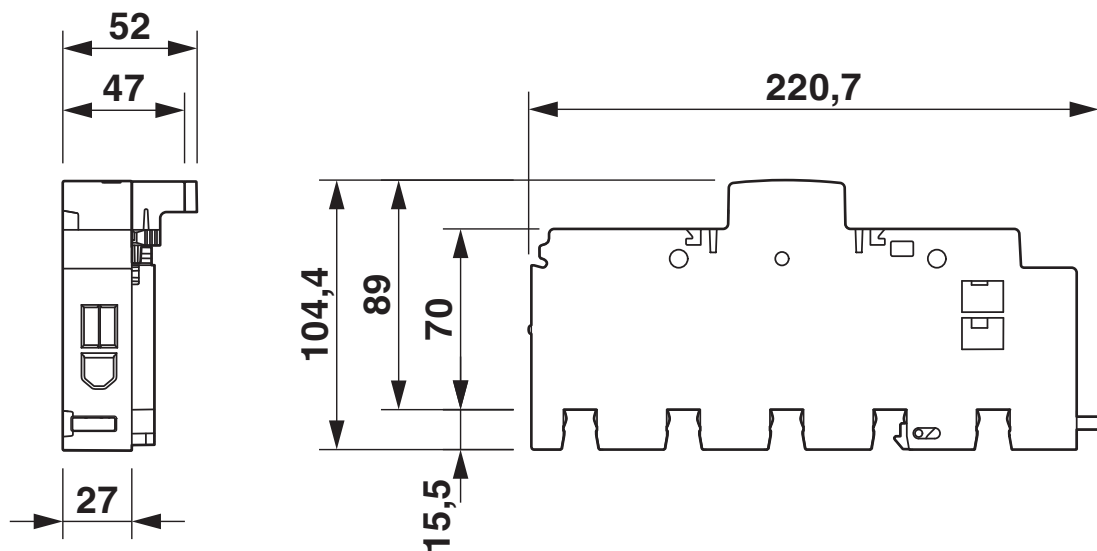
<https://www.phoenixcontact.com/gb/products/1758651>

Drawings

Dimensional drawing



Dimensional drawing



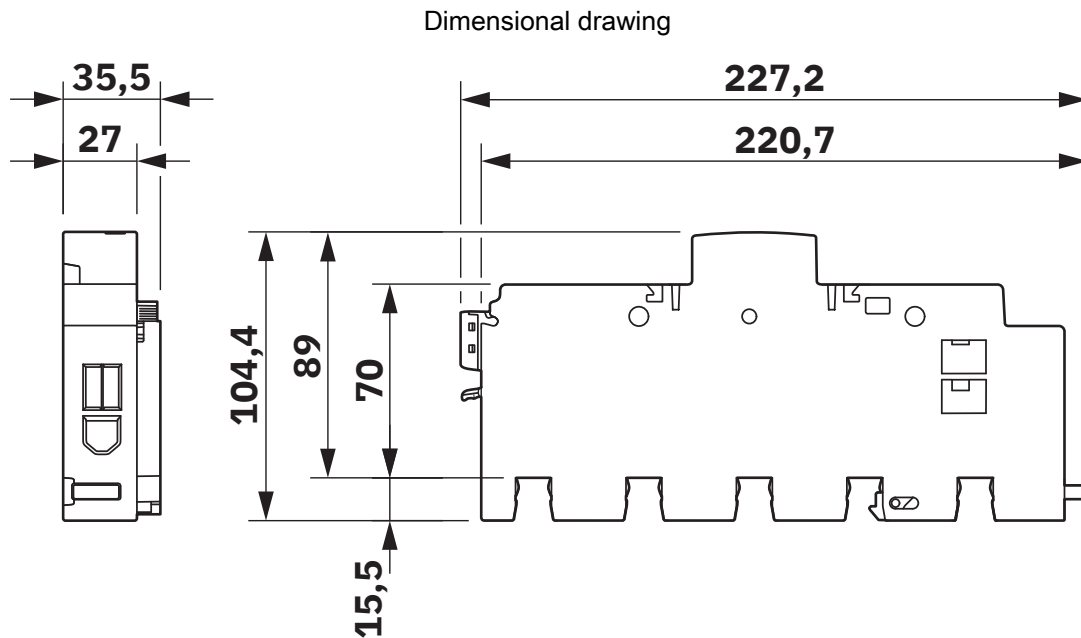
The figure shows the product with included spacer lid

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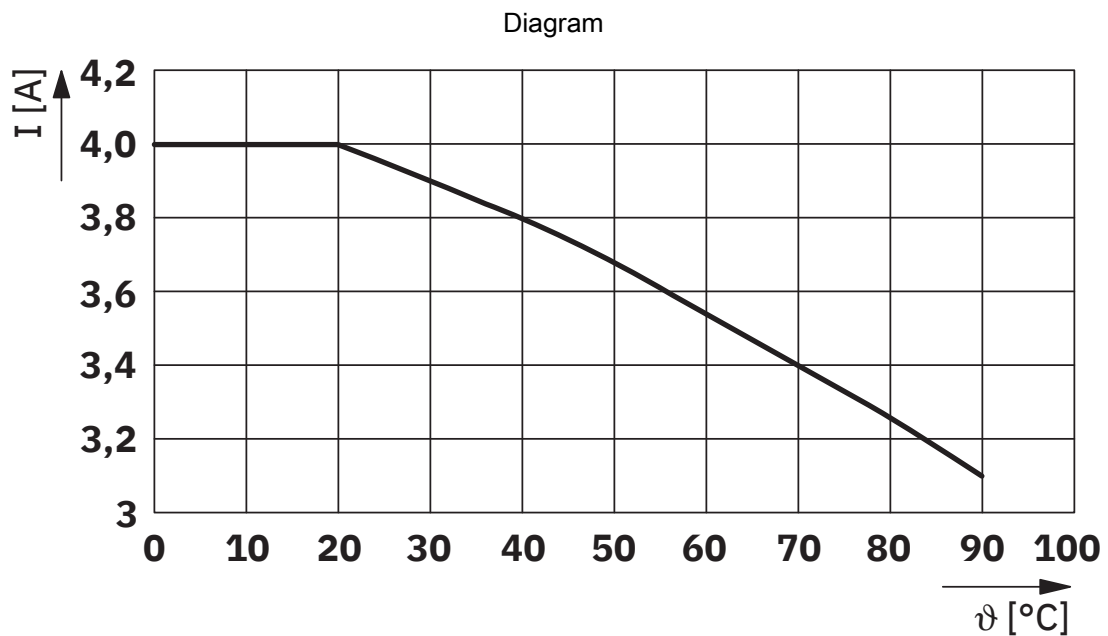


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The figure shows the product with optional remote signaling "FM-MODULE"



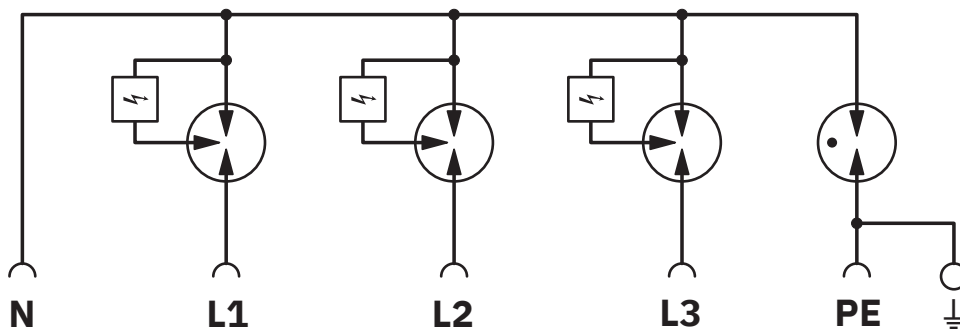
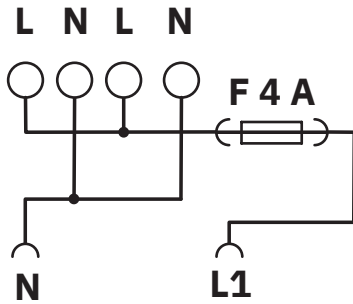
Fuse derating

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Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1758651>



VDE Zeichengenehmigung

Approval ID: 40052444



IECEE CB Scheme

Approval ID: DE1-70565

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Classifications

ECLASS

ECLASS-13.0	27171201
ECLASS-15.0	27171201

ETIM

ETIM 10.0	EC000381
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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)
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