Type 2 surge arrester - VAL-SEC-T2-3C-175-FM - 2905353

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Plug-in surge arrester, in accordance with Type 2/Class II, for 3-phase power supply networks with combined PE and N installed in one conductor (4-conductor system: L1, L2, L3, PEN), with remote indication contact.

Your advantages

- Varistor arrester with a low leakage current
- Extremely narrow design, just 12 mm per position
- High continuous voltage of 175 V AC for 120/208 V AC networks with high voltage fluctuations
- Pluggable
- Low voltage protection level of 0.85 kV
- Optical, mechanical status indicator
- With floating remote indication contact
- Plugs can be checked with CHECKMASTER 2

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 948258
GTIN	4046356948258

Technical data

Dimensions

Height	97.9 mm
Width	37.3 mm
Depth	74.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	2 Div.

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

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Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

General

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
Mode of protection	L-PEN
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
	traffic grey A RAL 7042
Housing material	PA 6.6-FR 20 % GF
	PBT-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Optical, remote indicator contact

Protective circuit

Nominal voltage U_N	120/208 V AC (TN-C)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	175 V AC
Rated load current I_L	40 A (Biconnect M4 fork-type cable lug 6 mm²)
	63 A (TWIN ferrule 2 x 10 mm²)
Nominal discharge current I_n (8/20) µs	20 kA
Maximum discharge current I_{max} (8/20) µs	40 kA
Short-circuit current rating I_{SCCR}	25 kA (in case of 315 A gG backup fuse)
	50 kA (in case of 200 A gG backup fuse)
Voltage protection level U_p	≤ 0.85 kV
Residual voltage U_{res}	≤ 0.85 kV (at I_n)
	≤ 0.75 kV (at 10 kA)
	≤ 0.65 kV (at 5 kA)
	≤ 0.63 kV (at 4 kA)
	≤ 0.57 kV (at 2 kA)
TOV behavior at U_T	240 V AC (5 s / withstand mode)
	240 V AC (120 min / safe failure mode)

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Protective circuit

Response time t_A	≤ 25 ns
Max. backup fuse with V-type through wiring	40 A (gG / Biconnect M4 fork-type cable lug, 6 mm²)
	63 A (gG / TWIN ferrule 2x 10mm²)
Max. backup fuse with branch wiring	315 A (gG)

Indicator/remote signaling

Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	125 V DC (200 mA DC)
Operating current	5 mA AC ... 1 A AC
	1 A DC (30 V DC)
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 mm² ... 1.5 mm²
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section AWG	28 ... 16

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible	2.5 mm² ... 16 mm²
Conductor cross section solid	2.5 mm² ... 25 mm²
Conductor cross section AWG	12 ... 4
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm² ... 6 mm²

UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-L)	350 V AC
Maximum continuous operating voltage MCOV (L-N)	175 V AC
Nom. voltage	120/208 V AC
Mode of protection	L-L
	L-N
Power distribution system	Wye
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	2010 V
Measured limiting voltage MLV (L-N)	1510 V
Nominal discharge current I_n (L-L)	20 kA

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UL specifications

Nominal discharge current I_n (L-N)	20 kA

UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A AC
Tightening torque	2 lb_f-in. ... 4 lb_f-in.
Conductor cross section AWG	30 ... 14

UL connection data

Conductor cross section AWG	14 ... 2 (solid)
	14 ... 4 (flexible)
Tightening torque	40 lb_f-in. ... 50 lb_f-in.

Standards and Regulations

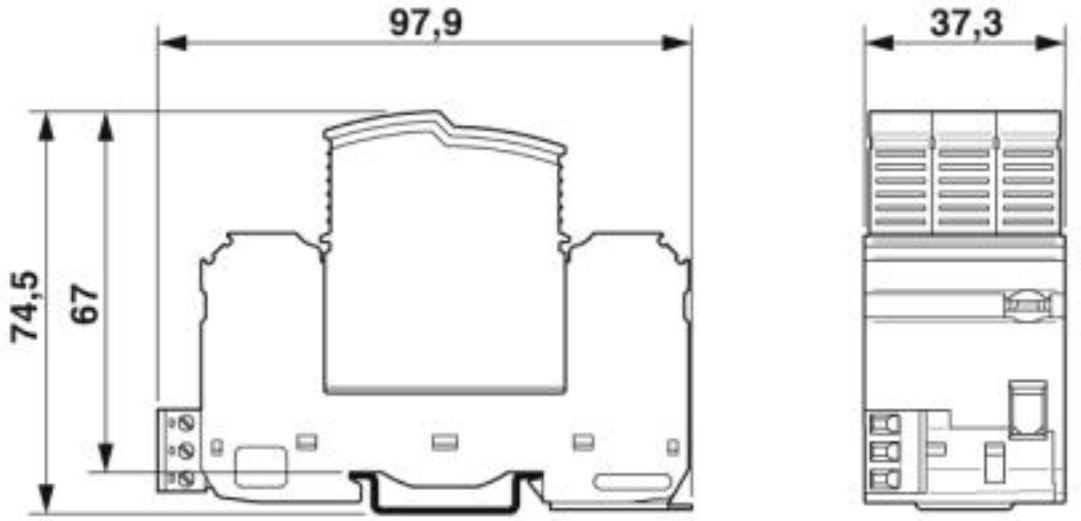
Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

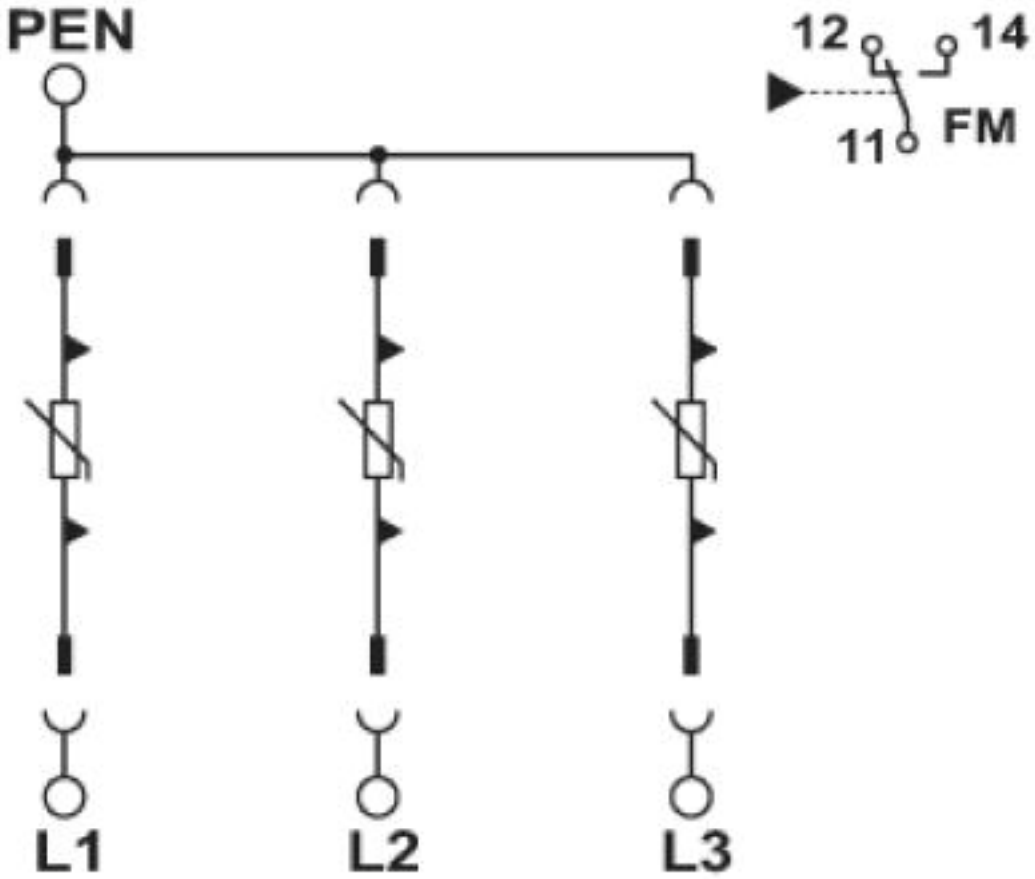
Drawings

Dimensional drawing



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Circuit diagram



Approvals

Approvals

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DNV GL / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IECEE CB Scheme / EAC / cULus Recognized

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE000023D

CCA	NTR-NL 7347

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Approvals

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181
KEMA-KEUR		http://www.dekra-certification.com	2196453.01
cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181
IECEE CB Scheme		http://www.iecee.org/	NL-34356
EAC			RU C-DE.A*30.B01561
cULus Recognized			

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