

## Type 2 surge arrester - VAL-SEC-T2-2C-350-FM - 2905337

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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

### Why buy this product

- ✓ Varistor arrester free of leakage current
- ✓ High-performance gas-filled surge arrester for N/PE protection
- ✓ Extremely narrow design, just 12 mm per position
- ✓ High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- ✓ Pluggable
- ✓ Low voltage protection level of 1.5 kV
- ✓ Optical, mechanical status indicator
- ✓ With floating remote indication contact as an option
- ✓ Plugs can be checked with CHECKMASTER 2



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 948005
Weight per Piece (excluding packing)	231.2 g
Custom tariff number	85363030
Country of origin	Germany
Note	Made to Order (non-returnable)

### Technical data

#### Dimensions

Height	97.9 mm
Width	25.4 mm
Depth	74.5 mm
Horizontal pitch	1.4 Div.

# Type 2 surge arrester - VAL-SEC-T2-2C-350-FM - 2905337

## Technical data

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
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 sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

### General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
Number of ports	One
SPD design	Voltage-limiting type
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
Pollution degree	2
Inflammability class according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage $U_N$	240/415 V AC (TN-C)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$ (L-PEN)	350 V AC
Rated load current $I_L$	40 A (Biconnect M4 fork-type cable lug 6 mm <sup>2</sup> )
	63 A (TWIN ferrule 2 x 10 mm <sup>2</sup> )
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-PEN)	20 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s (L-PEN)	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 $U_p$ (L-PEN)	≤ 1.5 kV
Residual voltage $U_{res}$ (L-PEN)	≤ 1.5 kV (at $I_n$ )

## Type 2 surge arrester - VAL-SEC-T2-2C-350-FM - 2905337

### Technical data

#### Protective circuit

	≤ 1.3 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1.1 kV (at 4 kA)
	≤ 1 kV (at 2 kA)
TOV behavior at U <sub>T</sub> (L-PEN)	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
Response time t <sub>A</sub> (L-PEN)	≤ 25 ns
Max. backup fuse with branch wiring	315 A AC (gG)
Max. backup fuse with V-type through wiring	40 A AC (gG / Biconnect M4 fork-type cable lug, 6 mm <sup>2</sup> )
	63 A AC (gG / TWIN ferrule 2x 10mm <sup>2</sup> )

#### Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	125 V AC (UL)
	125 V DC (200 mA DC)
Operating current	5 mA AC ... 1 A AC
	1 A AC (UL)
	1 A DC (30 V DC)
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
	2 lb <sub>f</sub> -in. ... 4 lb <sub>f</sub> -in. (UL)
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
AWG conductor cross section	28 ... 16
	30 ... 14 (UL)

#### Connection data

Connection method	Screw connection
Conductor cross section flexible min.	2.5 mm <sup>2</sup>
Conductor cross section flexible max.	16 mm <sup>2</sup>
Conductor cross section solid min.	2.5 mm <sup>2</sup>
Conductor cross section solid max.	25 mm <sup>2</sup>
AWG conductor cross section	12 ... 4
	14 ... 2 (Solid - UL)
	14 ... 4 (Stranded - UL)
Screw thread	M5

# Type 2 surge arrester - VAL-SEC-T2-2C-350-FM - 2905337

## Technical data

### Connection data

Tightening torque	4.5 Nm
	40 lb <sub>F</sub> -in. ... 50 lb <sub>F</sub> -in. (UL)
Stripping length	16 mm

### UL specifications

UL class	Type 4 SPD for Type 2 applications
Maximum continuous operating voltage MCOV (L-L)	700 V AC
Maximum continuous operating voltage MCOV (L-G)	350 V AC
Nom. voltage	277/480 V AC
Mode of protection	L-L
	L-G
Power distribution system	3Y
Nominal frequency	50/60 Hz
Voltage protection rating VPR (L-L)	2 kV
Voltage protection rating VPR (N-G)	1.2 kV
Nominal discharge current I <sub>n</sub> (L-L)	20 kA
Nominal discharge current I <sub>n</sub> (L-G)	20 kA

## Classifications

### eCl@ss

eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 8.0	27130805

### ETIM

ETIM 5.0	EC000941
----------	----------

## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

#### Approvals submitted

# Type 2 surge arrester - VAL-SEC-T2-2C-350-FM - 2905337

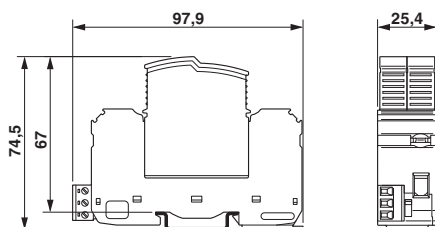
## Approvals

### Approval details

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

## Drawings

Dimensional drawing



Circuit diagram

