

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

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 documentation. Our general terms of use for downloads are valid.



Plug-in surge arrester, in accordance with Type 2/Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact.

## Your advantages

- Surge protection family for universal use with optimum energy coordination from the lightning current arrester to the device protection
- Easy to maintain due to consistently pluggable protection modules
- Excellent level of information provided by mechanical/visual status indicator and remote indication contact
- More space in the control cabinet due to the narrow overall width of just 12 mm per position and use without separate backup fuse up to 315 A gG

## Commercial data

Item number	2905340
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	31BCL
Product key	CL1351
Catalog page	Page 54 (C-4-2019)
GTIN	4046356948173
Weight per piece (including packing)	405.3 g
Weight per piece (excluding packing)	390 g
Customs tariff number	85363090
Country of origin	DE

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

## Technical data

### Product properties

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Type	DIN rail module, two-section, divisible
Product type	Surge arrester
Product family	SEC Family
Number of positions	4
Surge protection fault message	Optical, remote indicator contact

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
-------------------------	---------------

### Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover 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 data

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible	2.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section rigid	2.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section AWG	12 ... 4
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>

### Remote fault indicator contact

Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester

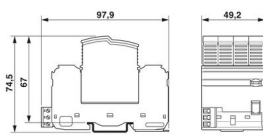
2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section rigid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

## Dimensions

Dimensional drawing	
Width	49.2 mm
Height	97.9 mm
Depth	74.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	2.7 Div.

## Material specifications

Color (Male connector)	light grey (RAL 7035)
Color (Base element)	gray (RAL 7042)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA6.6-FR 20% GF PBT-FR
Material group	I
Housing material	PA 6.6-FR 20 % GF PBT-FR

## Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Direction of action	3L-N & N-PE
Nominal voltage $U_N$	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$ (L-N)	350 V AC
Maximum continuous operating voltage $U_C$ (L-PE)	350 V AC
Maximum continuous operating voltage $U_C$ (N-PE)	264 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> )
Residual current $I_{PE}$	≤ 1 μA
Nominal discharge current $I_n$ (8/20) μs	20 kA

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

Maximum discharge current $I_{\max}$ (8/20) $\mu\text{s}$	40 kA
Follow current interrupt rating $I_{fi}$ (N-PE)	100 A (264 V AC)
Short-circuit current rating $I_{SCCR}$	25 kA (for a backup fuse of up to 315 A gG)
	50 kA (for a backup fuse of up to 200 A gG)
Voltage protection level $U_p$ (L-N)	$\leq 1.5$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 1.9$ kV
Voltage protection level $U_p$ (N-PE)	$\leq 1.5$ kV
Residual voltage $U_{res}$ (L-N)	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1.3$ kV (at 10 kA)
	$\leq 1.2$ kV (at 5 kA)
	$\leq 1.1$ kV (at 4 kA)
	$\leq 1$ kV (at 2 kA)
Residual voltage $U_{res}$ (L-PE)	$\leq 1.9$ kV (at $I_n$ )
	$\leq 1.5$ kV (at 10 kA)
	$\leq 1.4$ kV (at 5 kA)
	$\leq 1.3$ kV (at 4 kA)
	$\leq 1.2$ kV (at 2 kA)
Residual voltage $U_{res}$ (N-PE)	$\leq 0.5$ kV (at $I_n$ )
	$\leq 0.5$ kV (at 10 kA)
	$\leq 0.5$ kV (at 5 kA)
	$\leq 0.5$ kV (at 4 kA)
	$\leq 0.5$ kV (at 2 kA)
TOV behavior at $U_T$ (L-N)	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
TOV behavior at $U_T$ (N-PE)	1200 V AC (200 ms / withstand mode)
Response time $t_A$ (L-N)	$\leq 25$ ns
Response time $t_A$ (L-PE)	$\leq 100$ ns
Response time $t_A$ (N-PE)	$\leq 100$ ns
Max. backup fuse with V-type through wiring	40 A (gG / Biconnect M4 fork-type cable lug, 6 mm <sup>2</sup> )
	63 A (gG / TWIN ferrule 2x 10mm <sup>2</sup> )
Max. backup fuse with branch wiring	315 A (gG)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000$ m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm X$ , $\pm Y$ , $\pm Z$ )
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

## Approvals

### UL specifications

Maximum continuous operating voltage MCOV (L-L)	700 V AC
Maximum continuous operating voltage MCOV (L-N)	350 V AC
Maximum continuous operating voltage MCOV (L-G)	350 V AC
Maximum continuous operating voltage MCOV (N-G)	264 V AC
Nominal discharge current $I_n$ (L-L)	20 kA
Nominal discharge current $I_n$ (L-N)	20 kA
Nominal discharge current $I_n$ (L-G)	20 kA
Nominal discharge current $I_n$ (N-G)	20 kA
Mode of protection	L-L
	L-N
	L-G
	N-G
Nominal voltage	240/415 V AC
Power distribution system	Wye
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	3280 V
Measured limiting voltage MLV (L-N)	2000 V
Measured limiting voltage MLV (L-G)	2080 V
Measured limiting voltage MLV (N-G)	950 V
Follow current (L-G)	200 A (264 V AC)
SPD Type	4CA

### UL indicator/remote signaling

Operating voltage	125 V AC
AC operating current	1 A AC

### UL connection data

Tightening torque	40 lb <sub>F</sub> -in. ... 50 lb <sub>F</sub> -in.
Conductor cross section AWG	14 ... 2 (solid)
	14 ... 4 (flexible)

## Standards and regulations

Standards/specifications	IEC 61643-11
Note	2011

### EN 61643-11

Standards/specifications	EN 61643-11
Note	2012

## Mounting

Mounting type	DIN rail: 35 mm
---------------	-----------------

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester

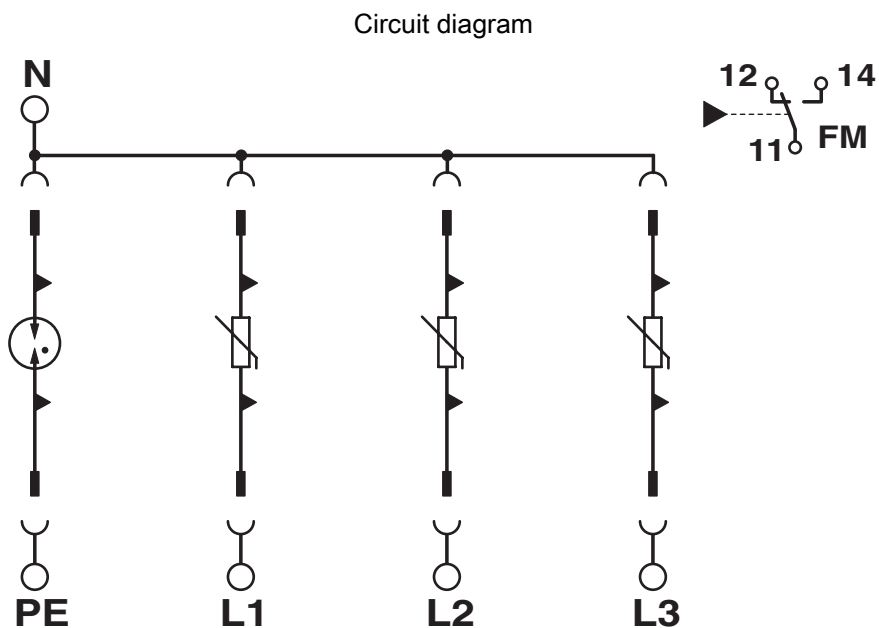


2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

## Drawings



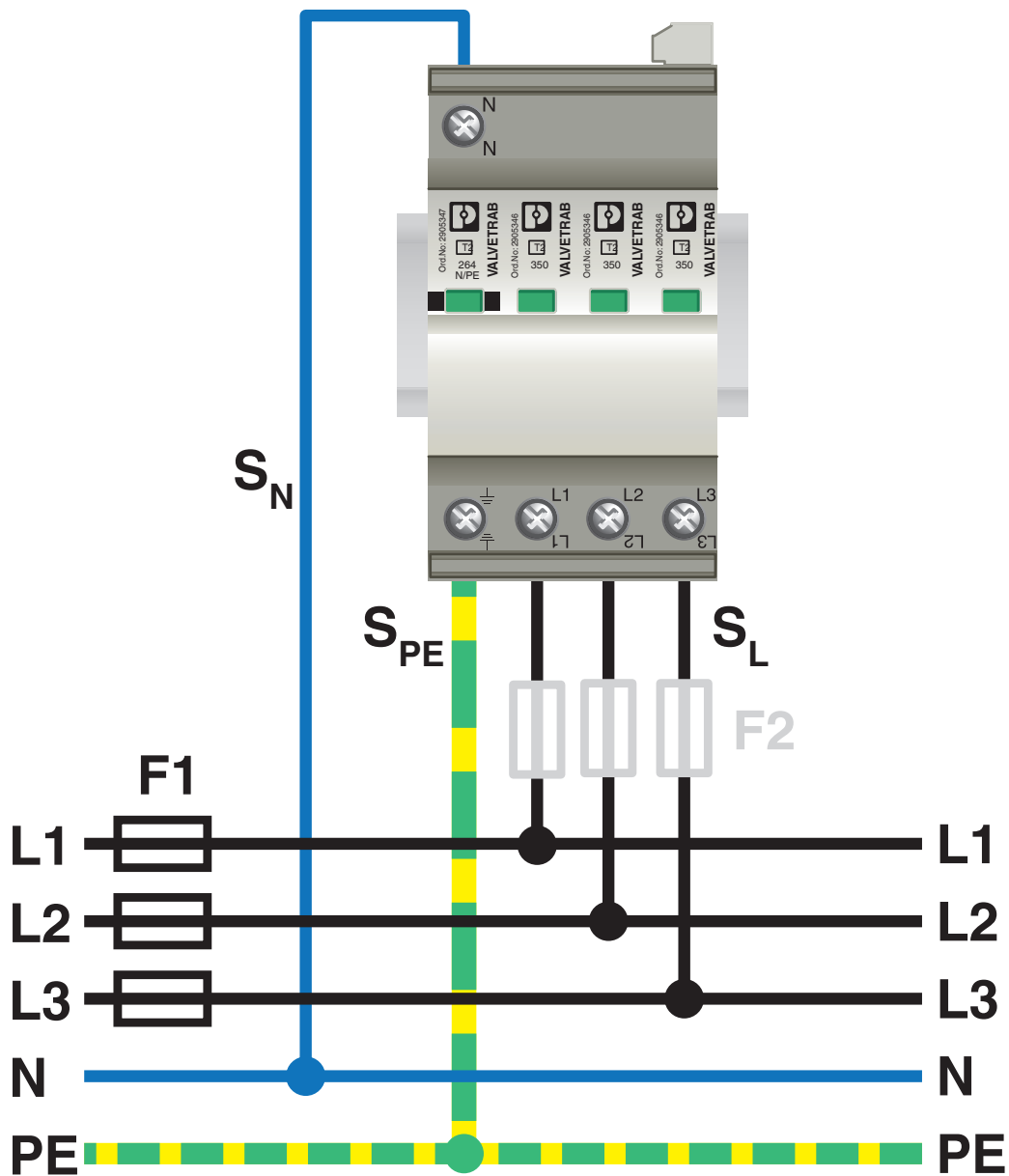
# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester

2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

Application drawing



# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester

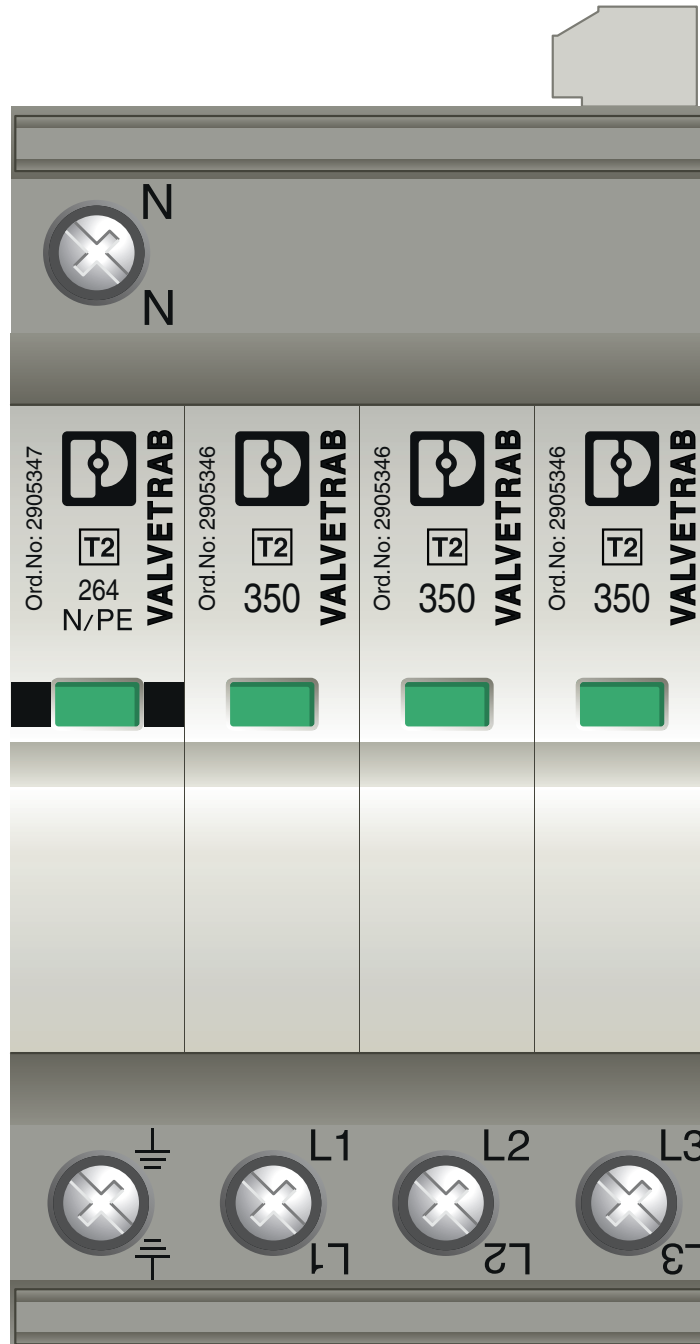


2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

Product drawing





# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester

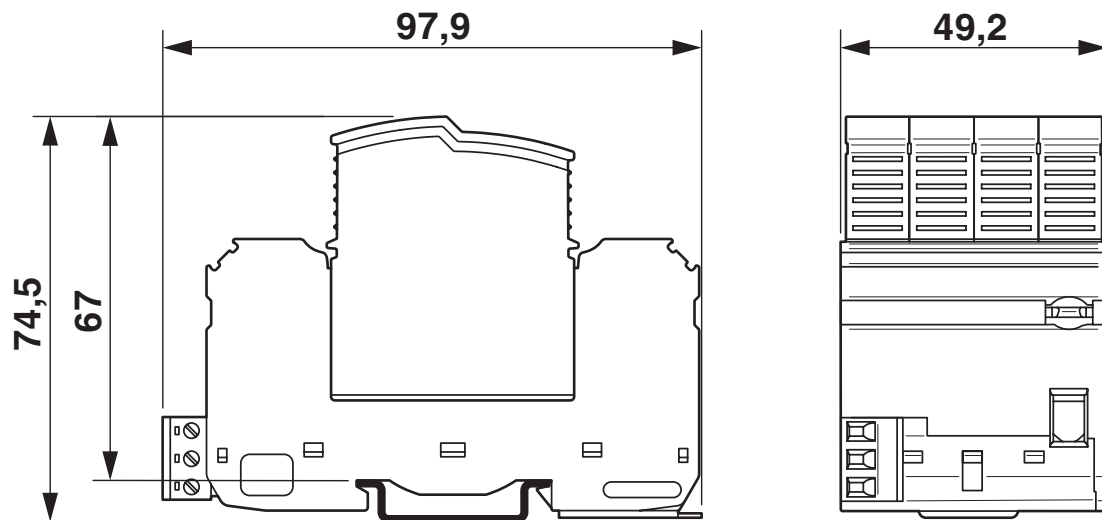
2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>



Dimensional drawing



# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/no/products/2905340>



**cUL Recognized**  
Approval ID: FILE E 330181



**UL Recognized**  
Approval ID: FILE E 330181



**IECEE CB Scheme**  
Approval ID: NL-34356



**EAC**  
Approval ID: RU C-DE.\*09.B.00169

**CCA**

Approval ID: NTR-NL 7347



**KEMA-KEUR**  
Approval ID: 2196453.01



**DNV GL**  
Approval ID: TAE000023D

**UAE-RoHS**

Approval ID: 23-10-88707

**cULus Recognized**

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

## Classifications

### ECLASS

ECLASS-11.0	27130805
ECLASS-13.0	27171202

### ETIM

ETIM 9.0	EC000941
----------	----------

### UNSPSC

UNSPSC 21.0	39121600
-------------	----------

# VAL-SEC-T2-3S-350-FM - Type 2 surge arrester



2905340

Electrical number: 1681606

<https://www.phoenixcontact.com/no/products/2905340>

## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT AS  
Strømsveien 344  
N-1081 Oslo  
+47 22 07 68 00  
[norge@phoenixcontact.com](mailto:norge@phoenixcontact.com)