

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

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>)




Pluggable surge protective device, in accordance with Type 2/Class II, for DC power sources with linear operating characteristics, 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 450 V DC for linear DC current sources with voltage fluctuations
- ✓ Pluggable
- ✓ Low voltage protection level
- ✓ 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 055626 245010
GTIN	4055626245010
Weight per Piece (excluding packing)	240.000 g
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	97.9 mm
Width	25.4 mm

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Technical data

Dimensions

Depth	74.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1.4 Div.

Ambient conditions

Degree of protection	IP20
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 %
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	DC
Mode of protection	(DC+) - (DC-)
	(DC+/DC-) - PE
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	2
Surge protection fault message	Optical, remote indicator contact

Protective circuit

Nominal voltage U_N	350 V DC ... 400 V DC
Maximum continuous voltage U_C	450 V DC
Rated load current I_L	40 A (Biconnect M4 fork-type cable lug 6 mm ²)
	63 A (TWIN ferrule 2 x 10 mm ²)
Residual current I_{PE}	≤ 350 µA DC
Nominal discharge current I_n (8/20) µs	20 kA
Maximum discharge current I_{max} (8/20) µs	40 kA
Impulse discharge current (10/350) µs, charge	0.5 As

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Technical data

Protective circuit

Impulse discharge current (10/350) μ s, specific energy	0.25 kJ/ Ω
Impulse discharge current (10/350) μ s, peak value I_{imp}	1 kA
Total discharge current I_{total} (8/20) μ s	40 kA
Short-circuit current rating I_{SCCR}	0.1 kA (without backup fuse)
	6 kA (for 20 A gG/B backup fuse)
Voltage protection level U_p (DC+) - (DC-)	≤ 3 kV
Voltage protection level U_p (DC+/DC-) - PE	≤ 1.5 kV
TOV behavior at U_T	551 V DC (5 s / withstand mode)
Response time t_A	≤ 25 ns
Max. backup fuse with V-type through wiring	20 A (gG / B at $I_{SCCR} > 200$ A)
	10 A (gG / B at $I_{SCCR} > 100$ A)
Max. backup fuse with branch wiring	20 A (gG / B at $I_{SCCR} > 200$ A)
	10 A (gG / B at $I_{SCCR} > 100$ A)

Indicator/remote signaling

Switching function	Changeover contact
Operating voltage	5 V AC ... 250 V AC (Altitude ≤ 2000 m amsl)
	5 V AC ... 150 V AC (Altitude > 2000 m amsl)
	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 mm ² ... 1.5 mm ²
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
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 mm ² ... 16 mm ²
Conductor cross section solid	2.5 mm ² ... 25 mm ²
Conductor cross section AWG	12 ... 4
Connection method	Fork-type cable lug

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Technical data

Connection data

Conductor cross section flexible	1.5 mm ² ... 6 mm ²
----------------------------------	---

UL specifications

SPD Type	4CA
Nominal voltage	400 V DC
Mode of protection	(DC+) - (DC-)
	(DC+) - G
	(DC-) - G
Power distribution system	DC
Nominal discharge current I _n	20 kA

UL indicator/remote signaling

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

UL connection data

Conductor cross section AWG	10 ... 2
Tightening torque	30 lb _F -in.

Standards and Regulations

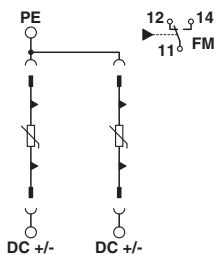
Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

Environmental Product Compliance

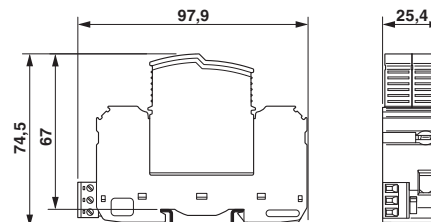
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Circuit diagram

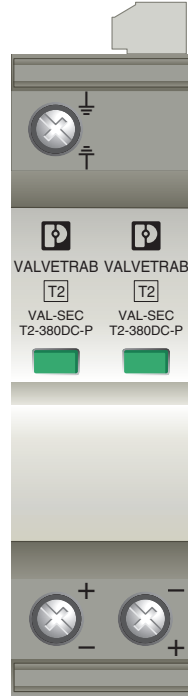


Dimensional drawing



Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Product drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27130805
eCl@ss 11.0	27130805
eCl@ss 5.1	27130801
eCl@ss 6.0	27130800
eCl@ss 7.0	27130805
eCl@ss 9.0	27130805

ETIM

ETIM 6.0	EC000941
ETIM 7.0	EC000941

UNSPSC

UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Approvals

Approvals

Approvals

EAC / DNV GL / UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details

EAC			RU C-DE.*09.B.00169
-----	--	--	---------------------

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

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181
---------------	--	---	---------------

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181
----------------	--	---	---------------

cULus Recognized			
------------------	--	--	--

Accessories

Accessories

Device marking

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Accessories

Label - EML (20XE)R - 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

Label - EML (20XE)R YE - 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

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Accessories

Labeled device marker

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Marker pen

Marker pen - X-PEN 0,35 - 0811228



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

Terminal marking

Flat zack marker sheet - ZBFM 5/WH:UNBEDRUCKT - 0803595



Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5.2 mm, lettering field size: 5 x 4.5 mm, Number of individual labels: 120

Spare parts

Type 2 surge arrester - VAL-SEC-T2-2+0-380DC-FM - 2907876

Accessories

Type 2 surge protection plug - VAL-SEC-T2-380DC-P - 2907880



Replacement plug for surge protective devices from the VALVETRAB SEC product range for DC power sources.