

VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

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.



Surge protective device, UL Listed type 1 and IEC type 1/2, single channel with remote indication contact for 48 V DC.

Your advantages

- Thermal disconnect device for each individual plug
- Optical, mechanical status indication for the individual arresters
- Pluggable
- Thermal disconnect device for each individual plug
- Mechanical coding of all slots
- Secure hold of plugs in the event of high lightning current loads and strong vibrations thanks to new latching

Commercial data

Item number	2910345
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL17
Product key	CL115U
GTIN	4055626444871
Weight per piece (including packing)	156 g
Weight per piece (excluding packing)	130 g
Customs tariff number	85363030
Country of origin	DE

Technical data

Product properties

Product type	Surge protection for NEMA power supply units
Product family	VALVETRAB US
IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
IEC power supply system	DC
Type	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	Optical, remote indicator contact
Number of ports	One

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1.5 A AC
	1 A DC (30 V DC)

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm (1.5 mm ² ... 16 mm ²)
	4.5 Nm (25 mm ² ... 35 mm ²)
Stripping length	16 mm
Conductor cross-section flexible min.	1.5 mm ²
Conductor cross-section flexible max.	25 mm ²
Conductor cross-section, rigid min.	1.5 mm ²
Conductor cross-section, rigid max.	35 mm ²
Conductor cross-section flexible	1.5 mm ² ... 25 mm ²
Conductor cross-section rigid	1.5 mm ² ... 35 mm ²
Conductor cross-section AWG	14 ... 2 (UL)

Remote fault indicator contact

Connection method	Screw connection
Screw thread	M2

VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

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

Dimensions

Dimensional drawing	
Width	17.6 mm
Height	96.8 mm
Depth	77.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6/PBT
Material group	I
Housing material	PA 6.6 PBT

Mechanical properties

Mechanical data

Open side panel	No
-----------------	----

Protective circuit

Direction of action	1L-GND
Nominal voltage U_N	60 V AC ± 10 % (TN-C) 60 V DC ± 10 % -48 V DC ± 10 % (RRH)
Maximum continuous operating voltage U_C	100 V DC 75 V AC
Rated load current I_L	80 A
Protective conductor current I_{PE}	≤ 0.6 mA
Nominal discharge current I_n (8/20) μ s	12.5 kA
Maximum discharge current I_{max} (8/20) μ s	65 kA
Total discharge current I_{Total} (10/350) μ s	12.5 kA
Short-circuit current rating I_{SCCR}	5 kA
Voltage protection level U_p	≤ 0.4 kV

VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

Residual voltage U_{res}	≤ 0.4 kV (at I_n)
	≤ 0.35 kV (at 10 kA)
	≤ 0.3 kV (at 5 kA)
	≤ 0.25 kV (at 3 kA)
TOV behavior at U_T	130 V DC (5 s / withstand mode)
Response time t_A	≤ 25 ns
Max. backup fuse with V-type through wiring	80 A (gG)
Max. backup fuse with branch wiring	160 A (gG)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm X$, $\pm Y$, $\pm Z$)
Vibration (operation)	7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

Approvals

UL specifications

Maximum continuous operating voltage MCOV	100 V DC
Short-circuit current rating (SCCR)	5 kA
Voltage protection rating VPR	400 V
UL type	type 1
Nominal discharge current I_n	20 kA
Maximum Surge Current per Phase	65 kA
Mode of protection	(DC+) - (DC-)
Nominal voltage	48 V DC
Power distribution system	DC
SPD Type	1

UL indicator/remote signaling

Operating voltage	125 V AC
AC operating current	1 A AC

UL connection data

Tightening torque	30 lb _F -in.
Conductor cross-section AWG	14 ... 2

Standards and regulations

Air clearances and creepage distances

Standards/regulations	EN 60664-1 / EN 61643-11
Standards/specifications	IEC 61643-11

VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

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

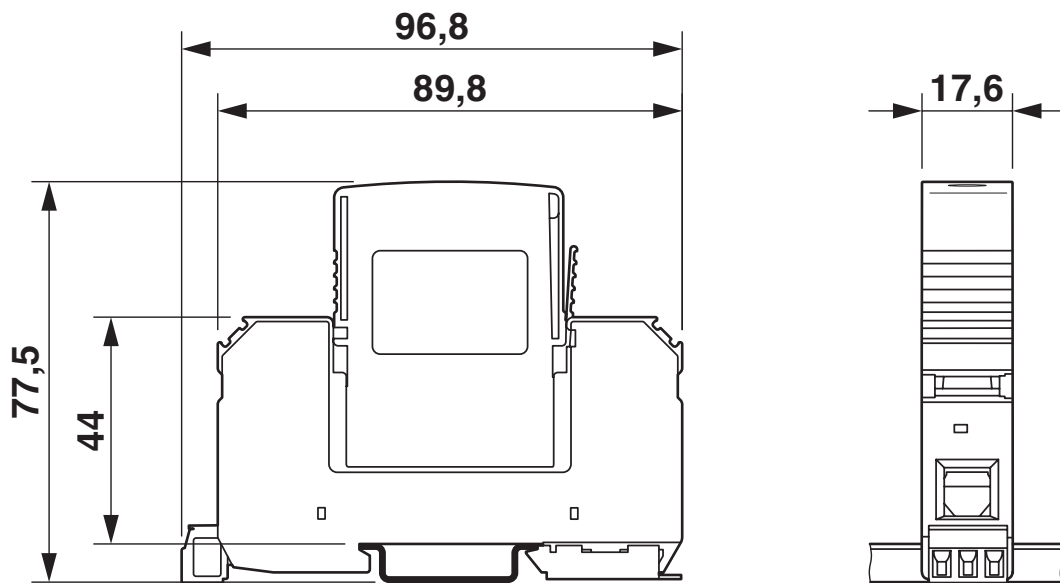
VAL-US-48/65/1+0-FM - Surge protection device

2910345

<https://www.phoenixcontact.com/us/products/2910345>

Drawings

Dimensional drawing



Circuit diagram



VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2910345>



UL Listed

Approval ID: FILE E 330181



cUL Listed

Approval ID: FILE E 330181

VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

Classifications

ECLASS

ECLASS-13.0	27171202
ECLASS-15.0	27171202

ETIM

ETIM 10.0	EC000941
-----------	----------

UNSPSC

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

VAL-US-48/65/1+0-FM - Surge protection device



2910345

<https://www.phoenixcontact.com/us/products/2910345>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com