

2921019

<https://www.phoenixcontact.com/us/products/2921019>

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.



Type 2 surge protective device for 4-conductor power supply systems (L1, L2, L3, PEN), with plug latching.

Commercial data

Item number	2921019
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	CL1322
Catalog page	Page 49 (C-6-2015)
GTIN	4046356280136
Weight per piece (including packing)	473.3 g
Weight per piece (excluding packing)	465.32 g
Country of origin	DE

VAL-MS 385/65/3+0 - Type 2 surge arrester



2921019

<https://www.phoenixcontact.com/us/products/2921019>

Technical data

Product properties

Product type	Surge arrester
Product family	VALVETRAB MS
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
Type	DIN rail module, two-section, divisible
Surge protection fault message	optical

Insulation characteristics

Overvoltage category	III
Pollution degree	2

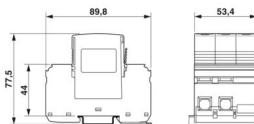
Electrical properties

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

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 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	1.5 mm ² ... 25 mm ²
Conductor cross section rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Dimensions

Dimensional drawing	
Width	53.4 mm
Height	89.8 mm
Depth	77.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	3 Div.

Material specifications

Flammability rating according to UL 94	V-0
--	-----

VAL-MS 385/65/3+0 - Type 2 surge arrester



2921019

<https://www.phoenixcontact.com/us/products/2921019>

CTI value of material	600
Insulating material	PA 6.6/PBT
Material group	I
Housing material	PA 6.6
	PBT

Protective circuit

Mode of protection	L-PEN
Direction of action	3L-PEN
Nominal voltage U_N	240/415 V AC (TN-C)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	385 V AC
Rated load current I_L	80 A
Residual current I_{PE}	$\leq 1800 \mu A$
Standby power consumption P_C	$\leq 690.00 \text{ mVA}$
Nominal discharge current I_n (8/20) μs	30 kA
Maximum discharge current I_{max} (8/20) μs	65 kA
Impulse discharge current (10/350) μs , charge	1.25 As
Impulse discharge current (10/350) μs , specific energy	1.56 kJ/ Ω
Impulse discharge current (10/350) μs , peak value I_{imp}	2.5 kA
Total discharge current I_{total} (8/20) μs	200 kA
Total discharge current I_{total} (10/350) μs	7.5 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	$\leq 1.8 \text{ kV}$
Residual voltage U_{res}	$\leq 1.8 \text{ kV}$ (at I_n)
	$\leq 1.3 \text{ kV}$ (at 10 kA)
	$\leq 1.2 \text{ kV}$ (at 5 kA)
	$\leq 1.15 \text{ kV}$ (at 3 kA)
TOV behavior at U_T	480 V AC (5 s / withstand mode)
Response time t_A	$\leq 25 \text{ ns}$
Max. backup fuse with V-type through wiring	80 A (gG - 16 mm ²)
Max. backup fuse with branch wiring	250 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	$\leq 2000 \text{ m}$ (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)

Standards and regulations

VAL-MS 385/65/3+0 - Type 2 surge arrester



2921019

<https://www.phoenixcontact.com/us/products/2921019>

Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

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

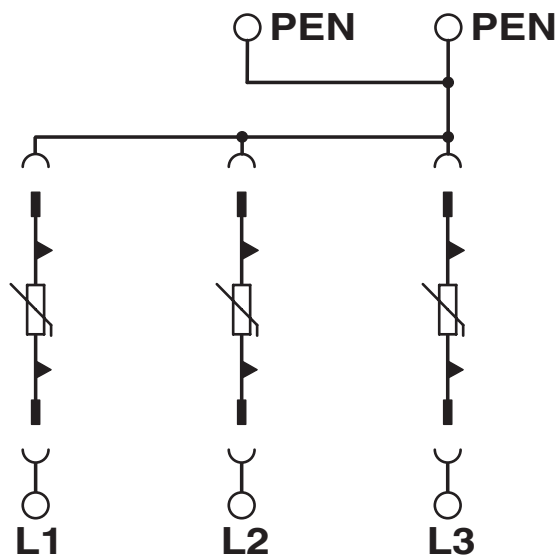
VAL-MS 385/65/3+0 - Type 2 surge arrester

2921019

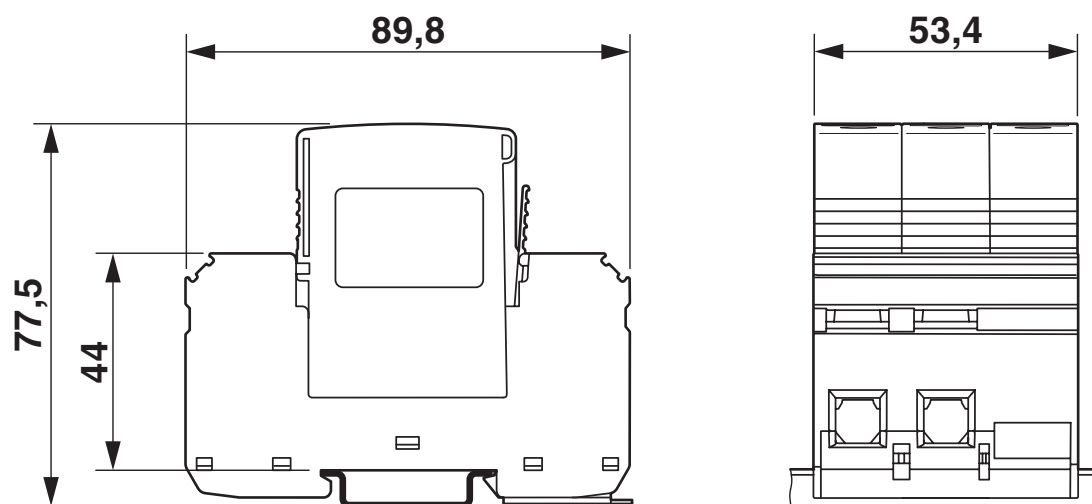
<https://www.phoenixcontact.com/us/products/2921019>

Drawings

Circuit diagram



Dimensional drawing



VAL-MS 385/65/3+0 - Type 2 surge arrester



2921019

<https://www.phoenixcontact.com/us/products/2921019>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

VAL-MS 385/65/3+0 - Type 2 surge arrester



2921019

<https://www.phoenixcontact.com/us/products/2921019>

Accessories

VAL-MS 385/65 ST - Type 2 surge protection plug

2920308

<https://www.phoenixcontact.com/us/products/2920308>



Type 2 surge protection plug with varistor for VAL-MS 385/65/..., thermal monitoring, visual fault warning.

VAL-MS 385/65 ST - Type 2 surge protection plug

2920308

<https://www.phoenixcontact.com/us/products/2920308>



Type 2 surge protection plug with varistor for VAL-MS 385/65/..., thermal monitoring, visual fault warning.

Phoenix Contact 2024 © - 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