

## Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

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>)




Surge arrester for 4-conductor power supply systems (L1, L2, L3, PEN), consisting of a base element with remote indication contact and protective connectors, for mounting on NS 35.

### Your advantages

- Other solutions for power supplies UN = 400 V available on request
- For power supplies with higher supply voltages
- Use in powerful industrial networks and wind turbine generators



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 157896
GTIN	4046356157896

### Technical data

#### Dimensions

Height	98.7 mm
Width	53.4 mm
Depth	65.7 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	3 Div.

#### 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 (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

# Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

## Technical data

### General

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
	IT
Mode of protection	L-PE
	L-PEN
Mounting type	DIN rail: 35 mm
Color	jet black RAL 9005
Housing material	PA 6.6
	PBT
Degree of pollution	2
Distance between live and grounded parts	8 mm
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Optical, remote indicator contact

### Additional descriptions

Note	For use in all low-voltage systems between L-PEN. Only for use in IT systems between L-PE if the bodies of the equipment in the low-voltage system are connected to the grounding system of the transformer station. (common grounding of the HV transformer station and the bodies of the LV consumer's installation. $R_E = R_A$ according to IEC 60364-4-442/VDE 0100-442 Figure 44D/example a)
------	---

### Protective circuit

Nominal voltage $U_N$	554/960 V AC (TN-C)
	690 V AC (IT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	760 V AC
Rated load current $I_L$	80 A
Residual current $I_{PE}$	$\leq 1.5$ mA
Standby power consumption $P_C$	$\leq 1200$ mVA
Nominal discharge current $I_n$ (8/20) $\mu$ s	15 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s	30 kA
Short-circuit current rating $I_{SCCR}$	25 kA
Voltage protection level $U_p$	$\leq 2.9$ kV
Residual voltage $U_{res}$	$\leq 2.9$ kV (at $I_n$ )
	$\leq 2.7$ kV (at 10 kA)
	$\leq 2.5$ kV (at 5 kA)
	$\leq 2.3$ kV (at 3 kA)
TOV behavior at $U_T$	1000 V AC (5 s / withstand mode)

# Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

## Technical data

### Protective circuit

	1056 V AC (120 min / safe failure mode)
Response time $t_A$	$\leq 25$ ns
Max. backup fuse with V-type through wiring	80 A (gG)
Max. backup fuse with branch wiring	100 A (gG)

### Indicator/remote signaling

Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1.5 A AC
	1 A 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 <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

### Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 Nm (1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> )
	4.5 Nm (25 mm <sup>2</sup> ... 35 mm <sup>2</sup> )
Stripping length	16 mm
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section solid	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>

### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-L)	1500 V AC
Maximum continuous operating voltage MCOV (L-G)	750 V AC
Nom. voltage	690 V AC
Mode of protection	L-L
	L-G
Power distribution system	Delta
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	4810 V
Measured limiting voltage MLV (L-G)	2560 V

# Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

## Technical data

### UL specifications

Nominal discharge current $I_n$ (L-L)	10 kA
Nominal discharge current $I_n$ (L-G)	10 kA

### UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A AC
Tightening torque	4 lb <sub>F</sub> -in.
Conductor cross section AWG	30 ... 14

### UL connection data

Conductor cross section AWG	10 ... 2
Tightening torque	30 lb <sub>F</sub> -in.

### Standards and Regulations

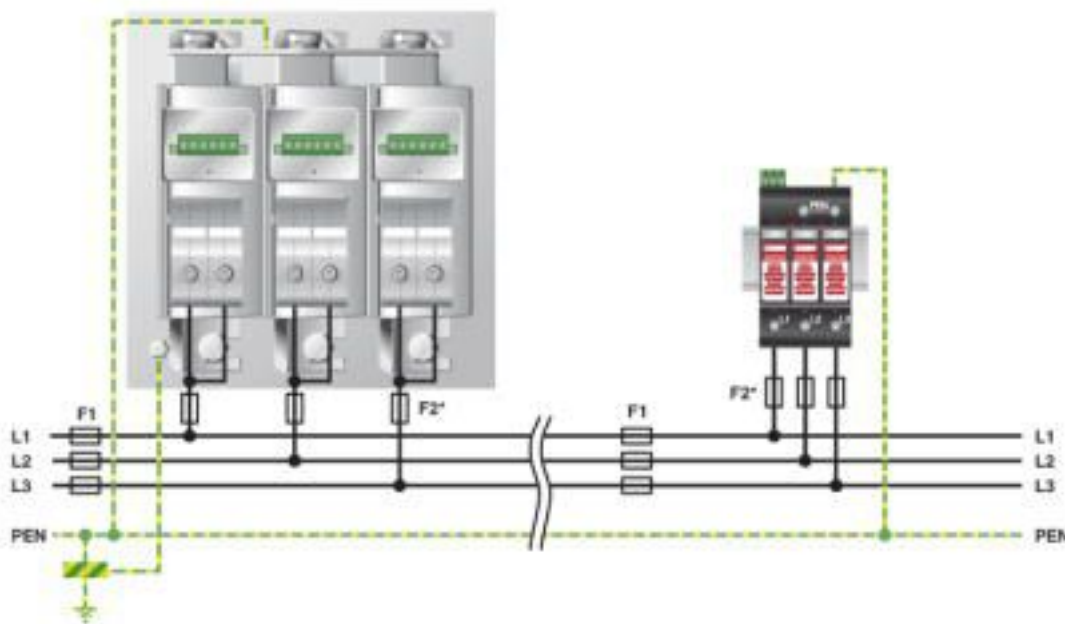
Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

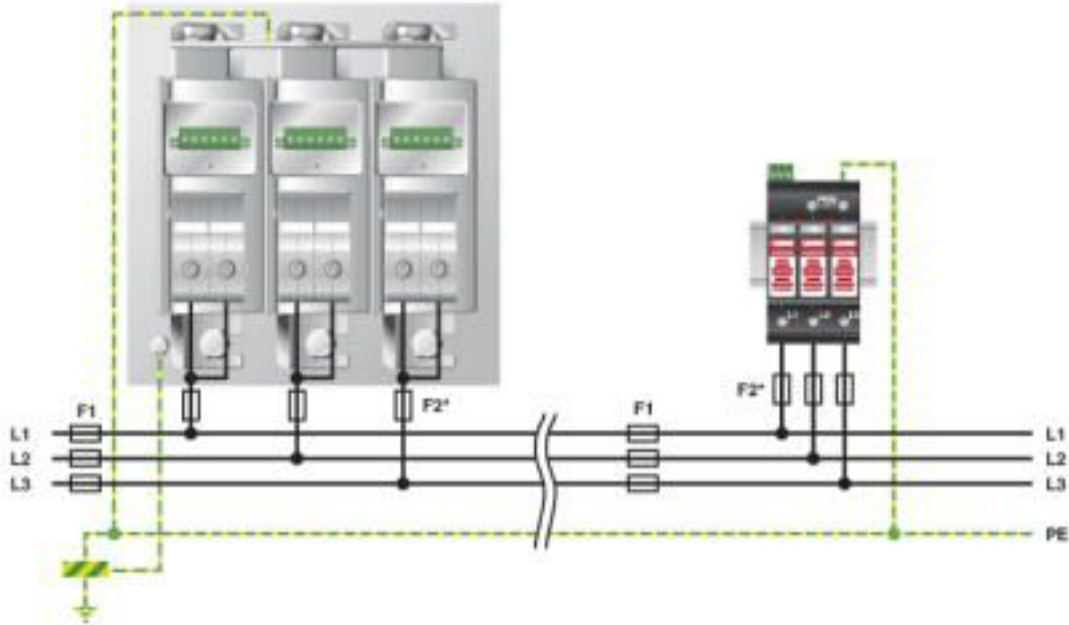
## Drawings

Application drawing

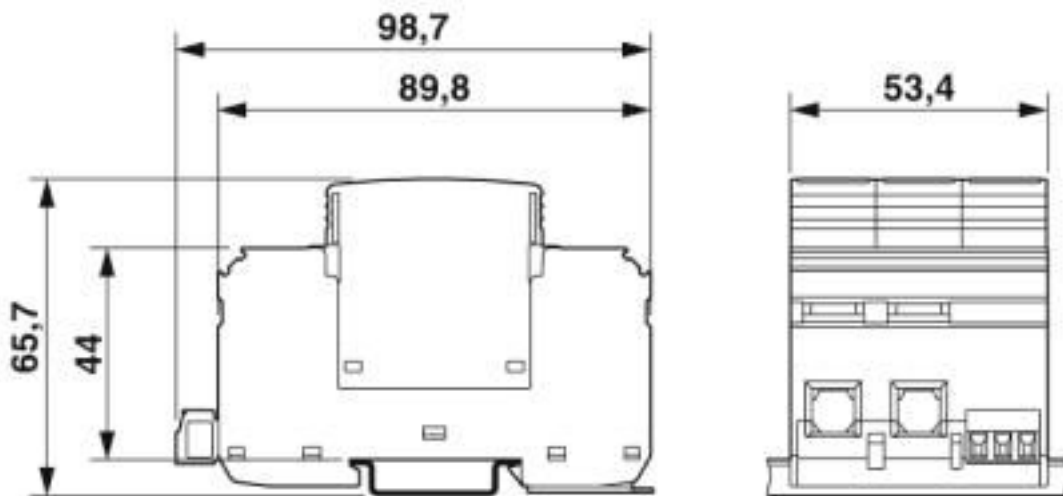


# Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

Application drawing

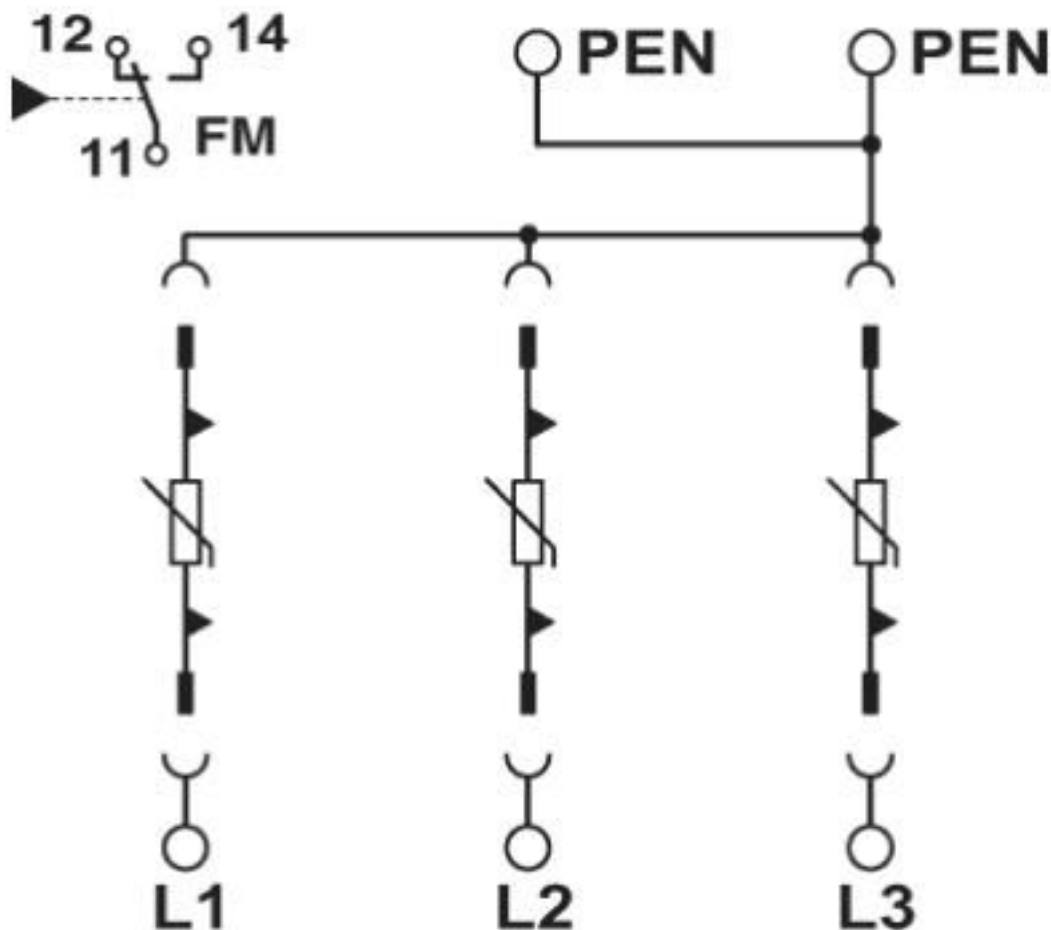


Dimensional drawing



## Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

Circuit diagram



### Classifications

eCl@ss

eCl@ss 10.0.1	27130805
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130805
eCl@ss 8.0	27130805
eCl@ss 9.0	27130805

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941

# Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

## Classifications

### ETIM

ETIM 4.0	EC000941
ETIM 5.0	EC000941
ETIM 6.0	EC000941
ETIM 7.0	EC000941

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals

#### Approvals

CSA / GL / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IECCEB Scheme / ÖVE / EAC / EAC / cULus Recognized

#### Ex Approvals

### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
-----	---	---	-------

GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	94385-10 HH
----	---	---	-------------

CCA			NTR-AT 1947-A
-----	--	--	---------------

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
---------------	---	---	---------------

# Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

## Approvals

KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	71-113273
cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	AT 2905/M1
ÖVE		<a href="https://www.ove.at/zertifizierung-pz/zertifizierungsregister/">https://www.ove.at/zertifizierung-pz/zertifizierungsregister/</a>	18583-001-14
EAC			EAC-Zulassung
EAC			RU C- DE.*09.B.00169
cULus Recognized			

## Accessories

### Accessories

#### Bridge

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

## Device marking



## Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

### Accessories

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

---

### Feed-through terminal block

Feed-through terminal block - DK-BIC-35 - 2749880



Feed-through terminal block for VAL and FLT applications

---

### Labeled device marker

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 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 pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

---

### Spare parts

## Type 2 surge arrester - VAL-MS 750/30/3+0-FM - 2920272

### Accessories

Type 2 surge protection plug - VAL-MS 750/30-ST - 2920256



Type 2 surge protection plug with a varistor for VAL-MS base element, thermal monitoring, visual fault warning.  
Design: 750 V AC

---

Phoenix Contact 2020 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Surge Suppressors](#) category:*

*Click to view products by [Phoenix Contact](#) manufacturer:*

Other Similar products are found below :

[GUS1](#) [GUS12](#) [BSPM1A600D600LVR](#) [2800521](#) [29-2053](#) [GUS11](#) [GUS2](#) [GUS3](#) [GUS4](#) [30460](#) [SRA64C060X](#) [PC642C015](#) [1810-15-A3](#)  
[2713175](#) [4B06B-EC1-150LF](#) [SRA6LC](#) [BPMA75D100LV](#) [CX06M](#) [CCTV1](#) [GUS13](#) [GUS14](#) [GUS5](#) [GUS6](#) [VAL-MS 320/3+0-FM](#) [VAL-US-](#)  
[120/40/1+1-FM](#) [VAL-US-120/65/1+1-FM](#) [VAL-US-480D/30/3+0-FM](#) [VAL-US-120/40/1+0-FM](#) [STCHSP121BT1RU](#) [LP-BFDN-CW](#) [LP-](#)  
[STRL-NFF](#) [LP-STRL-DFE](#) [GUS22](#) [0804111](#) [5053609](#) [5053201](#) [SPD2-150-1P0](#) [SPD2-550-1P0](#) [6720005416](#) [6720005417](#) [1-2191595-2](#)  
[STC-CAT6-P0E-I](#) [SPD2-350-1P0](#) [FLT-CP-350-ST](#) [TTC-6P-3-HF-F-M-12DC-UT-I](#) [SMTPA200](#) [2800989](#) [2906776](#) [2906810](#) [2906847](#)