

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



2920272

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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

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Can be used in high-performance industrial networks and wind turbine generators (stator) due to the high nominal voltage

Commercial data

Item number	2920272
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL1321
Product key	CL1321
Catalog page	Page 65 (C-4-2019)
GTIN	4046356157896
Weight per piece (including packing)	409 g
Weight per piece (excluding packing)	393 g
Customs tariff number	8536300000
Country of origin	CN

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Technical data

Notes

General

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)
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Product properties

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
	IT
Type	DIN rail module, two-section, divisible
Distance between live and grounded parts	8 mm
Product type	Surge arrester
Product family	VALVETRAB MS
Number of positions	3
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)
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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

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

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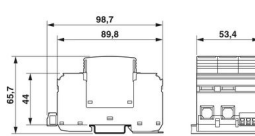
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Conductor cross section flexible	1.5 mm ² ... 25 mm ²
Conductor cross section rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Remote fault indicator contact

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 rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

Dimensions

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

Protective circuit

Mode of protection	L-PE
	L-PEN
Direction of action	3L-PEN
	3L-PE
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

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Rated load current I_L	80 A
Residual current I_{PE}	≤ 1.5 mA
Standby power consumption P_C	≤ 1200 mVA
Nominal discharge current I_n (8/20) μ s	15 kA
Maximum discharge current I_{max} (8/20) μ s	30 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 2.9 kV
Residual voltage U_{res}	≤ 2.9 kV (at I_n)
	≤ 2.7 kV (at 10 kA)
	≤ 2.5 kV (at 5 kA)
	≤ 2.3 kV (at 3 kA)
TOV behavior at U_T	1000 V AC (5 s / withstand mode)
	1056 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with V-type through wiring	80 A (gG)
Max. backup fuse with branch wiring	100 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)	25g (Half-sine / 11 ms / 3x \pm X, \pm Y, \pm Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

Approvals

UL specifications

Maximum continuous operating voltage MCOV (L-L)	1500 V AC
Maximum continuous operating voltage MCOV (L-G)	750 V AC
Nominal discharge current I_n (L-L)	10 kA
Nominal discharge current I_n (L-G)	10 kA
Mode of protection	L-L
	L-G
Nominal voltage	690 V AC
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
SPD Type	4CA

UL indicator/remote signaling

Operating voltage	125 V AC
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AC operating current	1 A AC
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UL connection data

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

Standards and regulations

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

Mounting

Mounting type	DIN rail: 35 mm
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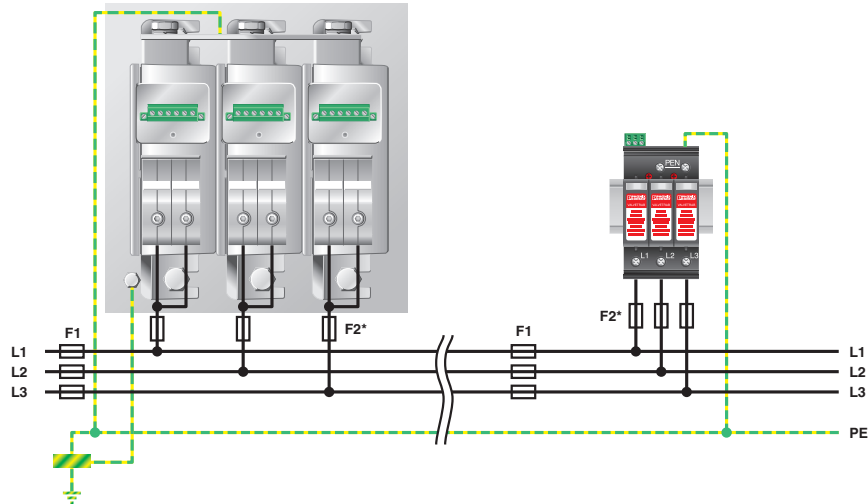
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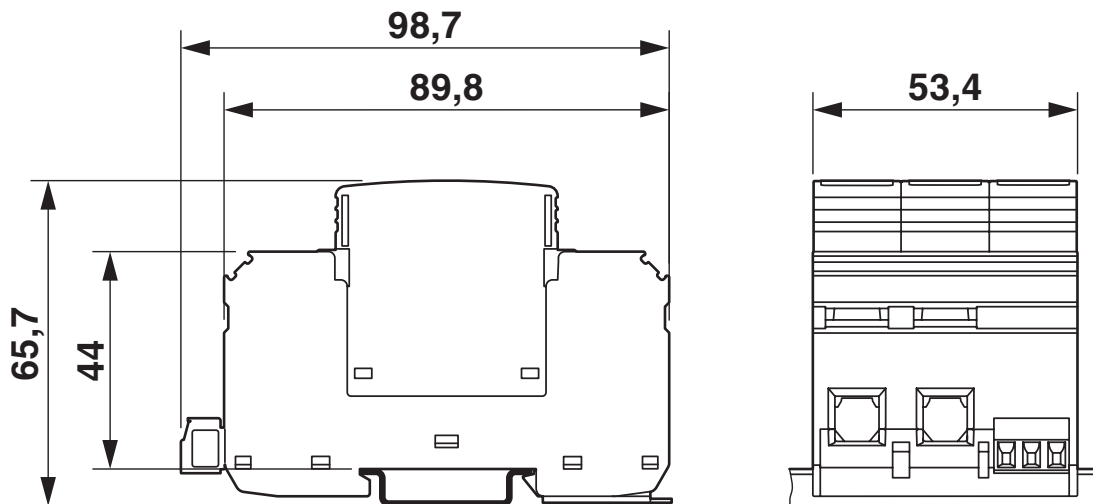
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Drawings

Application drawing



Dimensional drawing



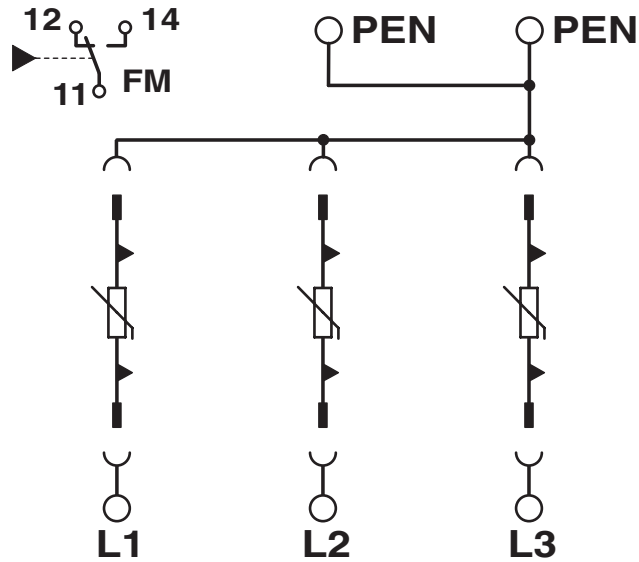
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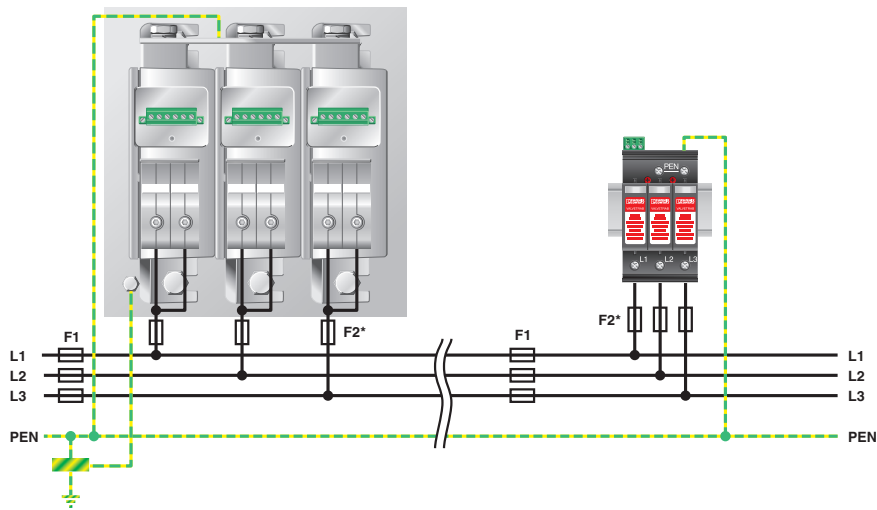
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Circuit diagram



Application drawing



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Approvals

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cUL Recognized

Approval ID: FILE E 330181



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IECEE CB Scheme

Approval ID: AT 2905/M1



EAC

Approval ID: EAC-Zulassung

CCA

Approval ID: NTR-AT 1947-A



KEMA-KEUR

Approval ID: 71-113273 REV.1



DNV GL

Approval ID: TAE000041M



EAC

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



CSA

Approval ID: 13631



ÖVE

Approval ID: 18583-001-17

UAE-RoHS

Approval ID: 22-09-51251

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Classifications

ECLASS

ECLASS-11.0	27130805
ECLASS-13.0	27171202

ETIM

ETIM 9.0	EC000941
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

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

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菲尼克斯（中国）投资有限公司总部
南京市江宁经济开发区菲尼克斯路36号
（江宁236信箱）邮编：211100
025-52121888
phoenix@phoenixcontact.com.cn